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3/23/92

EXPLANATION OF SIGNIFICANT DIFFERENCES
Summit National
Record of Decision Dated 6-30-88
Record of Decision Amendment Dated 11-2-90

Subsequent to the signing of the Record of Decision Amendment on November 2, 1990 for the Summit National Superfund site, a change in the Remedial Action selected in the ROD has been proposed. This is a significant change to a component of the remedy. I am hereby approving this change to the ROD and providing public notice of this change in accordance with CERCLA Section 117(c).

Introduction

The Summit National Superfund site is located in Deerfield Township, Portage County, Ohio. A Remedial Investigation and Feasibility Study (RI/FS) was conducted by U.S. Environmental Protection Agency (U.S. EPA) at the site and on June 30, 1988, U.S. EPA issued a Record of Decision (ROD) which selected the cleanup remedy at the site. The ROD was amended on November 2, 1990. Ohio Environmental Protection Agency (Ohio EPA) reviewed and provided comments on the RI/FS, ROD and ROD amendment as the documents were developed by U.S. EPA. The State of Ohio also concurred on the remedy selected by the ROD as amended.

A Consent Decree was entered with the court on June 11, 1991. The PRPs began to design the remedy according to the Statement of Work (SOW) which was attached to the Consent Decree. The SOW specified that the incineration of the soils be conducted under the Resource Conservation and Recovery Act (RCRA) regulations. Because there are soils containing PCBs at or above 50 ppm, Toxic Substances Control Act (TSCA) regulations must also be followed for these soils. In order to comply with TSCA, a contingency is being added to the remedy selected in the ROD. While the overall remedy selected was not fundamentally altered, a significant change was made to a component of the remedy. In accordance with CERCLA Section 117(c) this Explanation of Significant Differences (ESD) addresses this change and sets forth the reason this change was made.

Site History, Contamination Problems, and the Selected Remedy

The Summit National site, a former liquid waste disposal facility, is located on an abandoned coal strip mine at the intersection of Ohio Route 225 and U.S. Route 224 in Deerfield, Ohio; 20 miles west of Youngstown, and 45 miles southeast of Cleveland. The 11.5 - acre fenced site contains two ponds, an inactive incinerator, and several vacant buildings. Immediately surrounding the site are several rural residences, two landfills, light industries and farmland.

From 1973 to 1978, Summit National accepted liquid wastes including oil, resins, sludge, pesticide wastes and plating wastes in drums and tank trucks. These wastes were stored,

incinerated, buried or dumped at the site. In June of 1978, Ohio EPA ordered Summit National to stop receiving waste and to remove all liquid waste stored at the site, and in 1979 filed a complaint against the operations for failing to comply with State regulations regarding the handling of solid and liquid wastes.

Ohio's sampling of on-site soils and surface water indicated the presence of hazardous substances potentially harmful to public health and the environment. In 1980, Ohio EPA constructed a fence around the site, installed a drainage system to control surface water flow onto and off the site and six ground water monitoring wells. The same year, under authority granted in Section 311 of the Clean Water Act, U.S. EPA removed three liquid storage tanks and their contents and some contaminated surface soils from the site. In 1981, an agreement between Ohio and eight of the Potentially Responsible Parties resulted in a $2.5 million surface cleanup which removed drums, tanks, surface debris and a small amount of contaminated soil from the site. In 1983, U.S. EPA placed the site on the National Priorities List, a federal roster of the nation's uncontrolled or abandoned hazardous waste sites eligible for cleanup under the Superfund program. From 1984 through 1987, U.S. EPA conducted a Remedial Investigation (a number of scientific studies conducted to determine the nature and extent of contamination problems) to define and evaluate the alternatives for addressing the existing contamination identified during the Remedial Investigation. U.S. EPA also took some interim measures to control the migration of contaminants off-site and excavated an underground storage tank due to concern that hazardous substances contained in the tank might leak and contaminate the groundwater.

The Remedial Investigation confirmed the presence of contamination on-site in the groundwater, soils, pond sediments and surface water. In addition to on-site contamination, property outside the site perimeters was also found to be contaminated. A variety of organic and inorganic compounds was detected that could potentially threaten human health through direct contact with sediments and soils or ingestion of the groundwater. U.S. EPA developed nine alternatives for correcting and controlling the contamination and evaluated these alternatives against specific criteria to determine the best solution to the problem. A ROD was signed in June of 1988 specifying the Remedial Action selected for the site. The ROD was amended on November 2, 1990.

The Remedial Action Specified in the ROD amendment is:

1. Expanding site boundaries to include contaminated areas along the perimeters and the south drainage ditch and constructing an 8-foot chain link fence around this expanded boundary.

2. Excavating and incinerating (in an on-site facility) soils and sediments as follow:

Contaminated soils on-site:	24,000 c.y.
Contaminated perimeter sediments: (including drainage ditches)	4,000 c.y.
Contents of buried drums	900-1600 drums

3. Dismantling and/or demolishing all on-site structures for on-site disposal.

4. Collecting and treating surface water from two on-site ponds and drainage ditches. Sediments would be excavated after ponds and ditches are dewatered.

5. Extracting groundwater for treatment from the various levels of the water table on-site by two basic components:

   a. A pipe and media drain system along the southern boundary and lower portions of the eastern and western boundaries to extract and treat contaminated groundwater.

   b. Additional extraction wells installed in the intermediate unit to augment the pipe and media drain system.

   All water extracted will be treated by a system to be enclosed in an on-site building.

6. Relocating or removing one vacant residence.

7. Ash from incinerated waste material would be tested to ensure it conforms with U.S. EPA and Ohio EPA standards and used as fill to regrade the site before the final cover is placed over the surface. If the ash fails the test it would either be placed in an on-site RCRA facility or sent to an off-site RCRA landfill.

8. Regrading the site and installing a soil cover over approximately 10.6 acres of site. This cover will consist of an 18-inch layer of loam and 6 inches of topsoil with gas vents installed for treating and monitoring potential air emissions.

9. Rerouting south and east drainage ditches to uncontaminated areas beyond the site.

Description of the Difference in the ESD and the Basis for the Difference

The amended ROD calls for on-site incineration of soils contaminated with 50 ppm or greater PCBs. This ESD will allow for off-site disposal of the PCB contaminated soils, in the event that the incinerator is unable to meet TSCA standards during the test burn. The ROD and ROD amendment list TSCA as a regulation which will be followed at the site. Thus even though the SOW specifies that RCRA applies, TSCA must be followed when soils containing PCBs at or above 50 ppm are incinerated. An incinerator will be brought to the site and a test burn conducted. The parameters required under TSCA will be monitored during the test burn. If the incinerator passes the test for TSCA parameters, the contaminated PCB soils (at or above 50 ppm) will be incinerated on site. If it does not pass the test, the PCB contaminated soils will be sent off-site to a TSCA landfill. The incinerator is expected to be able to meet the TSCA requirements. But, as a contingency, the option is available to take the PCB soils to a off-site TSCA landfill. The PCB contaminated soils constitute only about 8 percent of the soils to be incinerated. Thus at least 92 percent of the soils (and probably 100 percent) will be incinerated on-site as specified in the amended ROD.

Ohio Environmental Protection Agency

The Ohio Environmental Protection Agency concurs with the contingency of removing PCB soils containing PCB's above 50 ppm to an off-site TSCA facility if TSCA parameters cannot be met by the incinerator brought to the site.

Public Participation Activities

A copy of the ESD is available for review at the:

U.S. Post Office
1365 Ohio Route 14
Deerfield, Ohio 44411
(216) 584-5901

Hours: 7:30 a.m. to 4:30 p.m.
Monday through Friday

Affirmation of Statutory Determinations

Considering the contingency that has been added to the selected remedy, U.S. EPA believes that the remedy remains protective of human health and the environment, complies with Federal and State requirements that are applicable or relevant and appropriate to this remedial action and is cost-effective.

The remedy selected in the ROD uses permanent solutions and alternative treatment technologies to the maximum extent practicable for this site. The vast majority of the contaminated soils will still be treated on-site. The PCB contaminated soils represent only 8% of the total volume of contaminated material. If the incinerator cannot meet TSCA requirements, landfilling in a TSCA facility is the appropriate alternative. Because the remedy selected in the ROD as amended, will result in hazardous substances remaining on-site, a review will be conducted within five years after commencement of remedial action to ensure that the remedy continues to provide adequate protection of human health and the environment.

3/23/92

Date

Valdas V. Adamkus
Regional Administrator

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EXPLANATION OF SIGNIFICANT DIFFERENCES II
Summit National
Record of Decision Dated 6-30-88
Record of Decision Amendment Dated 11-2-90
Explanation of Significant Differences I 3-23-92

Subsequent to the signing of the Explanation of Significant Differences I on 3-23-92 for the Summit National Superfund site, a change in the Remedial Action selected in the ROD has been proposed. This is a significant change to a component of the remedy. I am hereby approving this change to the ROD and providing public notice of this change in accordance with CERCLA Section 117(c).

Introduction

The Summit National Superfund site is located in Deerfield Township, Portage County, Ohio. A Remedial Investigation and Feasibility Study (RI/FS) was conducted by U.S. Environmental Protection Agency (U.S. EPA) at the site and on June 30, 1988, U.S. EPA issued a Record of Decision (ROD) which selected the cleanup remedy at the site. The ROD was amended on November 2, 1990. Ohio Environmental Protection Agency (Ohio EPA) reviewed and provided comments on the RI/FS, ROD and ROD amendment as the documents were developed by U.S. EPA. The State of Ohio also concurred on the remedy selected by the ROD as amended.

A Consent Decree was entered with the court on June 11, 1991. The PRPs began to design the remedy according to the Statement of Work (SOW) which was attached to the Consent Decree. During the design, additional groundwater characterization and groundwater treatability tests were performed. These tests indicated that high levels of acetone and 2-butanone were present at the site. The tests also confirmed that an air stripper would not be effective in treating the groundwater but that a bioreactor would be effective. Thus the air stripper has been replaced in the treatment plant by a bioreactor. While the overall remedy selected was not fundamentally altered, a significant change was made to a component of the remedy. In accordance with CERCLA Section 117(c) this Explanation of Significant Differences (ESD) addresses this change and sets forth the reason this change was made.

Site History, Contamination Problems, and the Selected Remedy

The Summit National site, a former liquid waste disposal facility, is located on an abandoned coal strip mine at the intersection of Ohio Route 225 and U.S. Route 224 in Deerfield, Ohio; 20 miles west of Youngstown, and 45 miles southeast of Cleveland. The 11.5 - acre fenced site contains two ponds, an inactive incinerator, and several vacant buildings. Immediately surrounding the site are several rural residences, two landfills, light industries and farmland.

From 1973 to 1978, Summit National accepted liquid wastes including oil, resins, sludge, pesticide wastes and plating wastes in drums and tank trucks. These wastes were stored, incinerated, buried or dumped at the site. In June of 1978, Ohio EPA ordered Summit National to stop receiving waste and to remove all liquid waste stored at the site, and in 1979 filed a complaint against the operations for failing to comply with State regulations regarding the handling of solid and liquid wastes.

Ohio's sampling of on-site soils and surface water indicated the presence of hazardous substances potentially harmful to public health and the environment. In 1980, Ohio EPA constructed a fence around the site, installed a drainage system to control surface water flow onto and off the site and six ground water monitoring wells. The same year, under authority granted in Section 311 of the Clean Water Act, U.S. EPA removed three liquid storage tanks and their contents and some contaminated surface soils from the site. In 1981, an agreement between Ohio and eight of the Potentially Responsible Parties resulted in a $2.5 million surface cleanup which removed drums, tanks, surface debris and a small amount of contaminated soil from the site. In 1983, U.S. EPA placed the site on the National Priorities List, a federal roster of the nation's uncontrolled or abandoned hazardous waste sites eligible for cleanup under the Superfund program. From 1984 through 1987, U.S. EPA conducted a Remedial Investigation (a number of scientific studies conducted to determine the nature and extent of contamination problems) to define and evaluate the alternatives for addressing the existing contamination identified during the Remedial Investigation. U.S. EPA also took some interim measures to control the migration of contaminants off-site and excavated an underground storage tank due to concern that hazardous substances contained in the tank might leak and contaminate the groundwater.

The Remedial Investigation confirmed the presence of contamination on-site in the groundwater, soils, pond sediments and surface water. In addition to on-site contamination, property outside the site perimeters was also found to be contaminated. A variety of organic and inorganic compounds was detected that could potentially threaten human health through direct contact with sediments and soils or ingestion of the groundwater. U.S. EPA developed nine alternatives for correcting and controlling the contamination and evaluated these alternatives against specific criteria to determine the best solution to the problem. A ROD was signed in June of 1988 specifying the Remedial Action selected for the site. The ROD was amended on November 2, 1990.

The Remedial Action Specified in the ROD amendment is:

1. Expanding site boundaries to include contaminated areas along the perimeters and the south drainage ditch and constructing an 8-foot chain link fence around this expanded boundary.

2. Excavating and incinerating (in an on-site facility) soils and sediments as follow:

Contaminated soils on-site:	24,000 c.y.
Contaminated perimeter sediments: (including drainage ditches)	4,000 c.y.
Contents of buried drums	900-1600 drums

3. Dismantling and/or demolishing all on-site structures for on-site disposal.

4. Collecting and treating surface water from two on-site ponds and drainage ditches. Sediments would be excavated after ponds and ditches are dewatered.

5. Extracting groundwater for treatment from the various levels of the water table on-site by two basic components:

   a. A pipe and media drain system along the southern boundary and lower portions of the eastern and western boundaries to extract and treat contaminated groundwater.

   b. Additional extraction wells installed in the intermediate unit to augment the pipe and media drain system.

   All water extracted will be treated by a system to be enclosed in an on-site building.

6. Relocating or removing one vacant residence.

7. Ash from incinerated waste material would be tested to ensure it conforms with U.S. EPA and Ohio EPA standards and used as fill to regrade the site before the final cover is placed over the surface. If the ash fails the test it would either be placed in an on-site RCRA facility or sent to an off-site RCRA landfill.

8. Regrading the site and installing a soil cover over approximately 10.6 acres of site. This cover will consist of an 18-inch layer of loam and 6 inches of topsoil.

9. Rerouting south and east drainage ditches to uncontaminated area beyond the site.

Description of the Difference in the ESD and the Basis for the Difference

The Statement of Work which was attached to the Consent Decree describes the components of the groundwater treatment system. These components included an air stripper vented through a carbon filter. During the design additional groundwater characterization and groundwater treatability tests were conducted. These investigations confirmed the presence of acetone and 2-butanone as the primary organic constituents in the groundwater, which were thought to be anomalous during the review of the Remedial Investigation data. The treatability tests showed that air stripping would be very ineffective in removing the acetone, 2-butanone and 4-methyl 2-pentanone. Since these compounds make up between 85 to 96 percent of the organic volatiles in the groundwater, their lack of removal during the air stripping operation would result in an unusually high treatment load on a final granular activated carbon treatment polishing step. Based on carbon adsorption isotherms developed during the treatability tests, the predicted carbon consumption initially would be expected to be in the range of 6,000 pounds per day. Based on the anticipated high carbon usage if air stripping was used and to ensure that the Best Available Treatment Technology (BATT) is utilized the following alternative treatment technologies were evaluated:

1) granular activated carbon;
2) aerobic biological treatment;
3) air stripping;
4) steam stripping; and
5) ultraviolet oxidation

These treatment technologies were reviewed for applicability and practicability as related to site conditions and it was concluded that biological treatment followed by activated carbon polishing would be the most practical and cost-effective BATT for treatment of the contaminated groundwater. The revised treatment process will consist of:

1) enclosed equalization/aeration tank with pH adjustment and vented through vapor phase carbon;

2) settling tank vented through vapor phase carbon, followed by surge tank and pH adjustment;

3) bioreactor vented through vapor phase carbon;

4) sludge dewatering and disposal;

5) enclosed media filtration; and

6) aqueous granular activated carbon final polishing.

Ohio Environmental Protection Agency

The Ohio Environmental Protection Agency concurs with changing the groundwater treatment system component from an air stripper to a bioreactor.

Public Participation Activities

A copy of the ESD is available for review at the:

U.S. Post Office
1365 Ohio Route 14
Deerfield, Ohio 44411
(216) 584-5901

Hours: 7:30 a.m. to 4:30 p.m.
Monday through Friday

Affirmation of Statutory Determinations

Considering the change that has been made to the selected remedy, U.S. EPA believes that the remedy remains protective of human health and the environment, complies with Federal and State requirements that are applicable or relevant and appropriate to this remedial action and is cost-effective.

The remedy selected in the ROD uses permanent solutions and alternative treatment technologies to the maximum extent practicable for this site. Only a component of the treatment system is being changed because the high level of volatile organic compounds found in the groundwater made air stripping impracticable. Using a bioreactor will eliminate this problem. Because the remedy selected in the ROD as amended, will result in hazardous substances remaining on-site, a review will be conducted within five years after commencement of remedial action to ensure that the remedy continues to provide adequate protection of human health and the environment.

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Date

_____
Valdas V. Adamkus
Regional Administrator