Minnesota Pollution Control Agency

Boise Cascade/Onan Corp./Medtronics, Inc. Superfund Site update

Superfund Program fact sheet g-2-04 • May 2012

This Minnesota Pollution Control Agency (MPCA) fact sheet for the Boise Cascade/Onan Corp./Medtronics, Inc. Superfund Site, located in the City of Fridley, Anoka County, Minnesota:

- summarizes site historical and investigation activities conducted during the remedial investigation,
- discusses the risks to human health and the environment that may be present at the site, and
- indicates the site's current status.

Where is the site?

The Boise Cascade/Onan Corp./Medtronics, Inc. Superfund Site is in Fridley. The 183-acre site is located approximately between Highway 65 on the west and Pleasant View Drive on the east, with 73th Avenue Northeast on the north and County Road H on the south. The western part of the site is bounded on the south by Rice Creek. There are residential neighborhoods east and south of the site. A map of the site is on page 2 of this fact sheet.

What is the site's background?

From about 1921 through 1946 National Pole and Treating Company operated a tie- and pole-treating facility on the site. From 1946 through 1961, similar wood-treating operations were conducted by Minnesota and Ontario Paper Company (M and O). Boise, the successor to M and O, sold the property in 1967 (Boise has recently became OfficeMax Corporation.). Subsequently, eastern and western portions of the site were acquired by Cummins Power Generation (formerly Onan) and Medtronic, respectively. The south-central portion of the site was later redeveloped by Real Estate Recycling, owned by Shamrock Investments III, LLC, and leased by Murphy Warehouse.

During the railroad tie and pole wood-treating operations, the "retort" area (pressure-treatment process area) and the area where the poles and ties were left to dry, cool and be loaded were largely located on the Onan part of the site. The heaviest concentrations of the creosote and pentachlorophenol (PCP) contamination were detected in these areas. Two wastewater-treatment lagoons, used for disposal of wastewaters generated during wood-treating operations, were located on what was to become the Medtronic part of the site. The wastewaters contained quantities of creosote and PCP, which subsequently contaminated soils and groundwater below the lagoons and a trench leading to the lagoons. Significant levels of polynuclear aromatic hydrocarbons (PAHs) and phenolics were detected in the soils below the former wastewater lagoons and trench leading to them.

The contamination has impacted the groundwater in the Fridley Formation, Lower Hillside Formation, and the Prairie du Chien Formation (bedrock aquifer) on both the Medtronic and Onan portions of the site.

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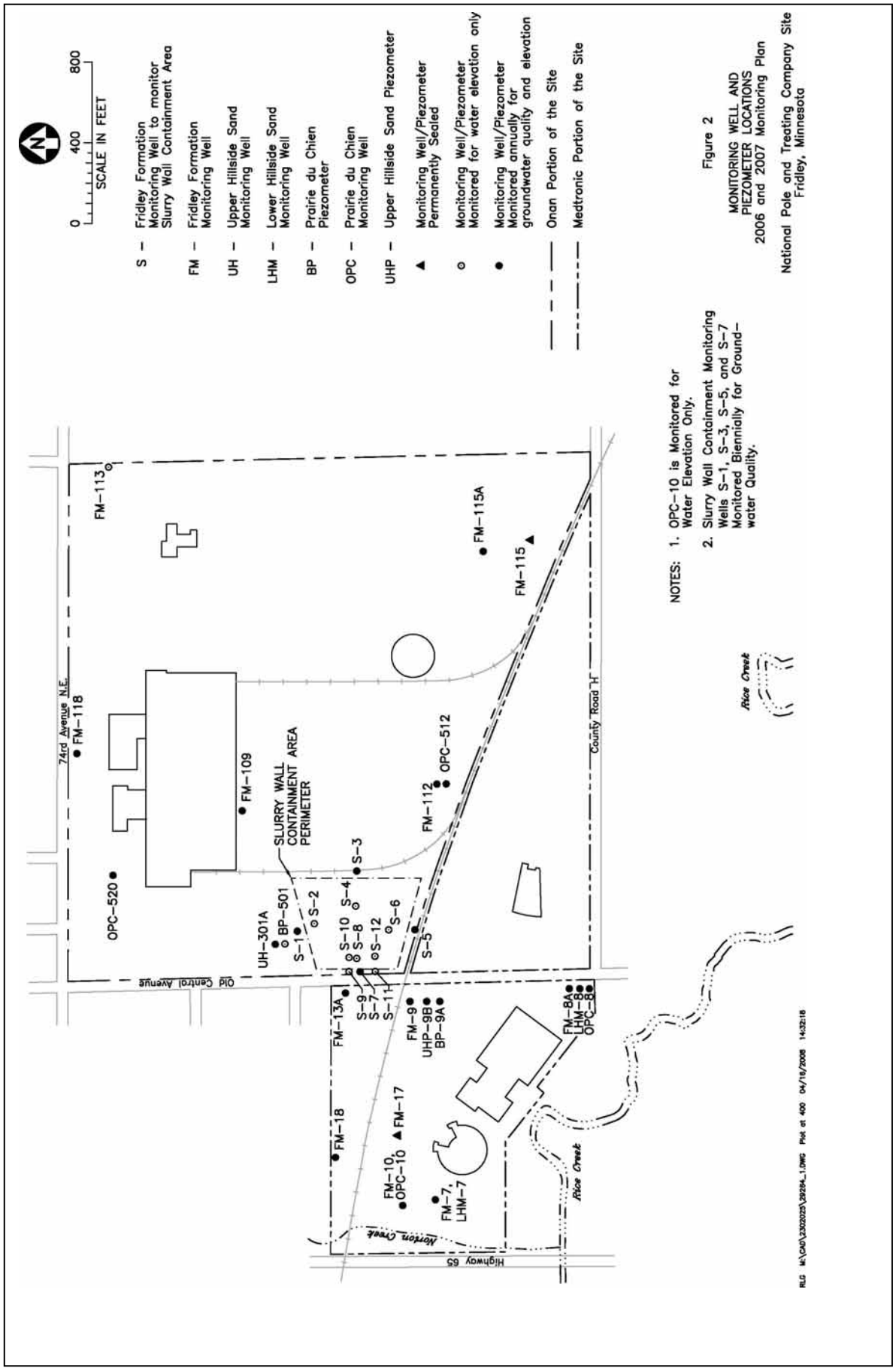
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SCALE IN FEET
S – Fridley Formation Monitoring Well to monitor Slurry Wall Containment Area
FM – Fridley Formation Monitoring Well
UH – Upper Hillside Sand Monitoring Well
LHM – Lower Hillside Sand Monitoring Well
BP – Prairie du Chien Piezometer
OPC – Prairie du Chien Monitoring Well
UHP – Upper Hillside Sand Piezometer
▲ Monitoring Well/Piezometer Permanently Sealed
○ Monitoring Well/Piezometer Monitored for water elevation only
● Monitoring Well/Piezometer Monitored annually for groundwater quality and elevation
Onan Portion of the Site
Medtronic Portion of the Site
NOTES: 1. OPC-10 is Monitored for Water Elevation Only.
2. Slurry Wall Containment Monitoring Wells S-1, S-3, S-5, and S-7 Monitored Biennially for Groundwater Quality.
Figure 2
MONITORING WELL AND PIEZOMETER LOCATIONS 2006 and 2007 Monitoring Plan
National Pole and Treating Company Site
Fridley, Minnesota
74rd Avenue N.E.
Old Central Avenue
County Road "H"
Highway 65
Rice Creek
Norton Creek
SLURRY WALL CONTAINMENT AREA PERIMETER
FM-113
FM-118
FM-109
FM-115A
FM-115
FM-112
OPC-512
OPC-520
UH-301A
BP-501
S-1
S-2
S-3
S-4
S-5
S-6
S-7
S-8
S-9
S-10
S-11
S-12
FM-13A
FM-9
UHP-9B
BP-9A
FM-8A
LHM-8
OPC-8
FM-18
FM-17
FM-10
OPC-10
FM-7
LHM-7

What's the cleanup history of this Superfund site?

The site was listed on the National Priorities List (NPL) on September 21, 1984, and on the Permanent List of Priorities (PLP), the state list of Superfund sites, on October 20, 1984. It was delisted from the NPL on February 15, 1995.

A 1984 Consent Decree between Boise and Medtronic and a 1984 Injunctive Order between Boise and Onan required Remedial Action Plans with certain response actions, including:

- All contaminated soil on the Medtronic property was excavated and transported off site for final disposal.
- Construction of a slurry walled vault to contain the hazardous wastes and soils generated while excavating and consolidating contamination from the retort and loading areas of the Onan part of the site.
- Monitor the groundwater quality in the area surrounding the slurry wall vault, and in the Fridley, Lower Hillside, and Prairie du Chien aquifers.
- Set specific action levels where PAH and phenolic concentrations above those concentrations would require additional response actions.
- Prior to any excavating on the site, the parties are required to notify the MPCA and other associated parties of those actions.

Summary of site risks

The contaminants of concern at the site are mainly PAHs and phenolics in the soil and groundwater.

The potential risk receptors are:

1. **Prairie du Chien Aquifer**: Current contaminant concentrations are below the action limits.
2. **Rice Creek**: The contaminant concentrations in the Fridley monitoring wells closest to the river were below the drinking water standards. However the anthracene concentration in two wells located approximately 150 feet upgradient from intermittent Norton Creek were above the chronic aquatic surface water standard.
3. **Vapor intrusion into nearby buildings**: The primary contaminants at the site are semivolatile organic compounds, and the data suggest that the soil and groundwater contamination is confined to the site. Because the primary contaminants are semivolatiles, the potential for vapor-intrusion impacts is limited.

Site redevelopment

The site has had redevelopment activities since the 1980s, when Medtronic constructed an office building and parking lot on the western part of the site and the Onan Corporation constructed an office building, manufacturing facility, and parking lots on the eastern part of the site. Since then, other portions of the site have been redeveloped.

In 1999, the south-central part of the site was redeveloped with the Murphy Warehouse building. Volatile organic compounds (VOCs) were detected in the soils. This part of the site was enrolled in the MPCA's Voluntary Investigation and Cleanup (VIC) Program, under the site name Cummins/Onan.

In 2010, the eastern part of the site was redeveloped with the Cummins Generator Test Cell Facility. A layer of PAH-impacted soil was encountered during the subsurface investigation. This part of the site was enrolled in the VIC Program under the name Cummins Power Generation Facility.

In 2011, Cummins conducted additional subsurface investigation in the north-central portion of the site. This was done as a precursor to potential redevelopment/expansion of Cummins' office and manufacturing facilities.

Current site status

1. Continue monitoring the groundwater surrounding the slurry vault, adjacent to Rice Creek, and in the deeper aquifer to confirm that the contaminant concentrations are stable or decreasing, and remain below the court-specified action limits.
2. As parts of the site are redeveloped, require that the MPCA be notified of the activities.

3. Require that as portions of the site are redeveloped, they be enrolled in the VIC Program to insure that that any contamination that is encountered is properly managed in accordance with the MPCA guidance and the Consent Decree and/or Injunctive Order.
4. Because a number of monitoring wells have consistently had contaminant concentrations below the detection limits, or significantly below the action limits, Boise requested in 2011 to reduce the frequency of groundwater monitoring and eliminate some of the groundwater-monitoring wells. MPCA staff concurred, and the legal documents are being prepared to request that the courts revise the groundwater sampling requirements.
5. The next U.S. Environmental Protection Agency-required Five-Year Review must be completed by August 19, 2014.

Associated areas in the Voluntary Investigation and Cleanup (VIC) Program

Cummins/Onan (site ID VP10430) – The south-central part of the site was enrolled in MPCA's VIC Program as part of the redevelopment of the site into the Murphy Warehouse and its associated parking areas.

A release of volatile organic compounds (VOCs) was detected in the soil near the former Butler building in 1999. This release was associated with the waste degreasing solvents, and sludge and waste paint materials that were stored in this area by Onan, and buried drums were encountered during excavation.

The site enrolled in the VIC program and was named Cummins/Onan, VP10430. Cummins/Onan is the responsible party.

Approximately 100 drums and 1,500 cubic yards of impacted soil were removed from the site. Groundwater was impacted by the release of VOCs and was monitored at the site. Following eight rounds of groundwater sampling and a groundwater receptor survey that showed no nearby users of the groundwater, it was determined that natural attenuation of the groundwater was an effective remedy.

VOC concentrations were generally below the current Groundwater Intrusion Screening Values for vapor impacts. Soil gas samples were not collected during the investigation.

Cummins Power Generation Facility (site ID VP10431) – The eastern part of the site was enrolled in the VIC Program as part of the redevelopment of the site into the Power Generation Test Cell Facility.

In 2009, Cummins began investigating the northeastern part of the Onan portion of the site before constructing a new Generator Test Cell Facility. A layer of black-stained soils was encountered at a depth ranging from 6 to 9 feet below ground surface. Elevated concentrations of diesel range organics (DRO), PAHs and PCP were detected in the samples.

The site enrolled in the VIC Program and was named Cummins Power Generation Facility, VP10431. The contamination appears to be associated with the former wood-treating operations.

In 2010 and 2011, the Generator Test Cell Facility was constructed. It consists of a slab-on-grade building, surface parking lot, utility trenches, and stormwater ponds.

One thousand three hundred sixty-one (1,361) tons of impacted soil were excavated from below the building and disposed off site.

Because more impacted soil was encountered than had been expected, some of the impacted soil was left in place under the southern part of the building and the parking lot. An institutional control will be required for the impacted soil left in place.

A vapor barrier and subslab venting system were installed below the new Generator Test Cell Facility.

Where can I get more information?

For more information about the Boise Cascade/Onan Corp./Medtronics, Inc. Superfund Site or its remediation, contact:

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To view the documents in the MPCA's administrative record that contain more details on the cleanup activities at this site, call the MPCA at 651-296-6300 or 800-6573864.