



EPA Proposes Changes To Cleanup Plan

Dana Corp. Facility (Warner Electric)

Roscoe, Illinois

September 2010

We want to hear from you

EPA invites your comments on the Agency's proposal to change the cleanup plan at the Dana Corp. facility in Roscoe. Your input is important because it helps EPA determine the best course of action. Here is how you can submit written statements during the public comment period that runs until midnight Sept. 30, 2010:

- Fill out and mail the enclosed comment form by the deadline.
- E-mail comments to EPA Project Manager Christopher Black at black.christopher@epa.gov.
- FAX to Christopher Black at 312-692-2062.
- Attend the Sept. 15 public meeting at North Suburban Library, Roscoe Branch, 5562 Clayton Circle, 5:30-7:30 p.m.

For general questions about the Dana cleanup contact:

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For technical questions:

Christopher Black
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Region 5 toll-free: 800-621-8431,
8:30 a.m. – 4:30 p.m., weekdays.

U.S. Environmental Protection Agency Region 5 is proposing several changes to the long-standing cleanup plan for the Dana Corp. facility in Roscoe in order to manage the remaining soil and underground water contamination in and around the site. Proposed changes include phasing out a water treatment system, installing new soil vapor extraction equipment and encouraging the growth of pollution-eating microbes. The proposed actions at a cost of \$992,000 are part of a number of changes EPA wants to make to a 1991 cleanup plan for the Dana site, which was formerly known as Warner Electric Brake and Clutch Co.

EPA conducts cleanup activities at the Dana site under the authority of the federal Resource Conservation and Recovery Act (RCRA). This plain language fact sheet summarizes technical information that can be found in a document called the “statement of basis.”¹ Another useful document containing detailed information about the site is called “Revised Workplan to Administrative Order on Consent – April 2009.” EPA encourages the public to review these documents in order to gain a better understanding of the RCRA corrective action activities being conducted at the Dana facility.

The statement of basis proposes the pump-and-treat system that has been cleaning underground water supplies since 1991 be phased out. Tests show the underground water (“ground water” in environmental terms) is now meeting drinking water standards and treatment is no longer needed. Installation of a soil vapor extraction system at the former plant would reduce the mass of chlorinated volatile organic compounds (CVOCs) still underneath the facility and prevent gases from moving into indoor air or ground water. And EPA also wants to use a cleanup technique called “enhanced bioremediation” on the remaining pollution on and around the Dana site. In enhanced bioremediation, living microbes already present are encouraged to grow and digest the contaminants.

Site history

The Dana facility is located at 5253 McCurry Road in Roscoe and is bounded by residential property to the north of McCurry Road, by a gravel pit and agricultural land west of State Route 251, by a railroad to the east, and by agricultural land and commercial property to the south. The Rock River flows about 1 mile to the southwest.

The Dana facility began operations in 1957 when Warner Electric fabricated

¹EPA may modify the proposed remedy or select another option based on new information or public comments. All documents supporting the proposed changes are contained in the administrative record located at the Roscoe Branch Library, 5562 Clayton Circle, Roscoe, and EPA Region 5 Records Center (7th Floor), 77 W. Jackson Blvd., Chicago.

metal parts for automotive brakes and clutches.

As part of the manufacturing process, metal parts were machined and degreased using volatile organic compounds such as trichloroethene (TCE), 1,1,1 trichloroethane (1,1,1TCA), and methylene chloride. Some of these VOCs were released to the soil where they seeped into the underground water supplies. The Dana facility ceased operations in 2004.

Past environmental actions

In 1983 the Illinois State Water Survey and Illinois Environmental Protection Agency conducted a study of nitrate levels in Winnebago County. The agencies tested well water in the Hononegah Estates and Moore Haven subdivisions in Roscoe and discovered excessive levels of VOCs, which were traced to the Warner facility. In 1984 Warner Electric agreed to a legal order with the State of Illinois where it extended municipal water to Hononegah Country Estates and Moore Haven subdivisions, cleaned on-site waste lagoons and closed wastewater ponds.

In 1989, EPA and Dana entered into a RCRA administrative order on consent where the company agreed to install a deep water supply well that offers clean drinking water to residents affected by site contamination. In addition, a pump-and-treat system for contaminated ground water was installed in 1991 in the south end of the Moore Haven subdivision, and the system has been successful in reducing underground water contaminants.

Other environmental investigations were conducted on and around the Dana site in 1992, 2002, 2003, 2005, 2006 and 2008. Besides the ground water and soil contamination, investigators have been concerned about the potential for a problem called “vapor intrusion.”

Read the documents

Detailed reports and documents supporting EPA’s proposed amended cleanup plan can be found in the administrative record for the Dana site available at:
North Suburban Library District
Roscoe Branch
5562 Clayton Circle
Roscoe

VOCs that sit in soil or dissolve in underground water tend to release hazardous vapors that rise through the soil to the surface or seep through basement cracks and contaminate indoor air. To protect residents from vapor intrusion, soil gas and indoor air sampling were part of some of the past environmental investigations. Results indicated vapor intrusion had not become a serious health concern in and around the Dana facility. Some of the proposed cleanup changes are to keep the soil gas issue at the facility under control.

Health risks from the site

Thanks to past cleanup and containment practices, pollution from the Dana site does not pose an imminent threat to people’s health.

Ground water that starts in the site and flows underneath residential areas on its way to the Rock River remains contaminated with volatile organic chemicals. But residents of Hononegah and Moorehaven subdivisions and businesses in the area get their drinking water from the North Park Public Water District, which is not affected by the Dana pollutants, so people are not exposed to excessive health risks. Some residents use their private wells for watering lawns and swimming pools, but environmental experts say VOC concentrations are low enough that people will not face adverse health effects if they have incidental contact with the tainted ground water.

Health risks from on-site soil contamination and escaping gas are also low because no one currently works on the property. The potential for vapor intrusion exists at the facility. Part of the changes proposed by EPA will specifically tackle this issue. A 2003 vapor intrusion study where indoor air samples were taken at several homes near the Dana facility found no health concerns.

Cleanup changes and options

While considering how to manage remaining contamination on and around the Dana site, EPA looked at three cleanup options before picking a preferred route. The alternatives considered were:

- No further action. **No cost.**
- Continuing the pump-and-treat system and not addressing the mass of VOCs on the Dana property. **No cost.**
- Installing the soil vapor extraction system/using enhanced bioremediation/allowing natural processes to eliminate ground water pollutants/monitoring the Rock River/imposing institutional controls on the Dana property/and

requiring financial assurances from Dana to do the cleanup work. **Cost - \$992,000**

All of the alternatives were compared to nine evaluation criteria. Cleanup options selected must meet the first four minimum criteria to be considered further:

- 1) Protect human health and the environment.
- 2) Attain soil and water contamination levels that protect human health and the environment.
- 3) Control the sources of hazardous waste.
- 4) Comply with applicable standards for waste management in meeting Safe Drinking Water Act standards.

Cleanup options that survive the first four criteria were then checked against five balancing criteria:

- 1) Long-term reliability and effectiveness.
- 2) Reduction of toxicity, mobility, or volume of waste.
- 3) Short-term effectiveness
- 4) Implementability (how easy is it to actually install the cleanup option).
- 5) Cost

The first two options – no action and continued operation of the pump-and-treat system – failed to meet the four base criteria so were eliminated from further consideration. That left Alternative 3.

Details of proposed cleanup changes

Soil Vapor Extraction

Soil Vapor Extraction (SVE) is the removal of soil vapor from below the surface. A pilot test was conducted on a SVE system in 2008, and the test showed SVE works well in extracting TCE and chlorinated compounds from below the concrete slab at the facility. The SVE system provides a vacuum on individual extraction points through the facility floor. The system will be installed in areas where solvents were used. The SVE will continue to operate until the remaining soil vapor does not pose an unacceptable risk to indoor air intrusion, or represent a source for ground water contamination. It is anticipated it will take three to five years to reach that soil vapor cleanup goal.

Enhanced Bioremediation

Enhanced bioremediation means feeding the microbes that are already degrading the contaminants in the ground water to enhance their number and effectiveness. The source of the microbial food is a sugar along with iron, yeast extract and sodium sulfite. The injections will focus on the affected ground water near the TCE storage area on-site as well as other affected areas near the western end of the facility. Pilot tests of the injections confirm its

effectiveness. Four ground water monitoring wells downhill from the TCE storage area will be sampled to insure the effectiveness of this technique. Enhanced bioremediation will assist Dana in meeting the intermediate cleanup criteria for ground water that is used for watering lawns or in swimming pools.

Monitored Natural Attenuation

MNA includes a variety of physical, chemical or biological processes such as evaporation, dilution and decay that lower pollution levels. Eleven monitoring wells will keep track of the natural attenuation process. It is anticipated with the current contaminant levels and the water flow rate that in 10 to 20 years drinking water standards will be reached.

Seep Sampling along the Rock River

The treatment system currently collects and treats the affected ground water prior to its discharge to the Rock River. The proposed cleanup changes call for phasing out the pump and treat system. The ground water enters the Rock River at several points called “seeps.” The seeps will be sampled for two years during low river levels to ensure the ground water is meeting cleanup standards.

Institutional Control

An environmental covenant will be implemented on the Dana facility to restrict on-site ground water use, limit site use to industrial/commercial activities, and impose controls on excavation procedures for construction workers and redevelopment workers in areas posing the most health risk.

Financial Assurance

Dana will be required to provide financial assurance to ensure the option can be implemented over its lifetime of about 20 years. As mentioned above, the estimated cost of preferred Alternative 3 is \$992,000.

Next steps

EPA encourages the public to comment on this proposal for the Dana Corp. facility. The comment period runs through Sept. 30.

After reviewing all the comments, EPA will decide whether Alternative 3 is appropriate and will release a document called a “Final Decision Response to Comments.” The Final Decision Response to Comments will be available in the administrative record for the site kept at the Roscoe Branch Library. A summary of all the comments received and EPA’s responses will be contained in the Final Decision Response to Comments.

EPA Wants to Make Changes to the Cleanup Plan

Dana Corp. Facility (formerly Warner Electric)
Roscoe, Illinois

Public Comment Period: Until Sept. 30, 2010

(details inside)

DANA FACILITY/WARNER ELECTRIC: EPA Proposes Cleanup Changes

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Dana Corp. Facility (Warner Electric)

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