UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 7
11201 Renner Boulevard
Lenexa, Kansas 66219

JUN 17 2016

Mr. Dennis W. McKinney
Corporate Director Environmental, Health and Safety
Fortune Brands Home and Security
25300 Al Moen Drive
North Olmstead, Ohio 44070

RE: Final Remedy Decision and Response to Comments for the Former Waterloo Industries Facility, 300 Ansborough Avenue, Waterloo, Iowa
EPA ID No. IAD005277959

Dear Mr. McKinney:

The U.S. Environmental Protection Agency Region 7 office is issuing the Final Remedy Decision and Response to Comments document for the Former Waterloo Industries Facility located at 300 Ansborough Avenue, Waterloo, Iowa. The Statement of Basis describing the proposed remedy was made available for public review and comment from January 4, 2016, through March 21, 2016. Only one formal comment was received on the Statement of Basis, as described in the FRD/RTC, and this comment will be addressed as part of the Remedy Implementation Plan. Therefore, the selected final remedy has not changed from that specified in the Statement of Basis. The Final Remedy Decision and Response to Comments document is enclosed with this letter.

In the near future, the EPA will be sending you a letter outlining the necessary next steps for implementing the remedy that has been selected and requesting financial assurance for the work to be performed. If you have any questions, please call me at (913) 551-7324.

Sincerely,

Daniel Gravatt, P.G.
Geologist
RCRA Corrective Action and Permits Section
Waste Remediation and Permitting Branch
Air and Waste Management Division

Enclosure

cc: Mark Seaman, ERM
Amie Davidson, IDNR

RCRA
551118

Printed on Recycled Paper

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 7
11201 Renner Boulevard
Lenexa, Kansas 66219

FINAL DECISION AND RESPONSE TO COMMENTS

Former Waterloo Industries Facility
EPA ID # IAD005277959
Waterloo, Iowa

INTRODUCTION

This Final Remedy Decision and Response to Comments is issued by the U.S. Environmental Protection Agency, Region 7. The purpose of the FRD/RTC is to present issues and concerns raised during the public comment period on the remedy proposed for the Former Waterloo Industries Facility (the "Facility"), to provide responses to those issues and concerns, and to identify the remedy EPA has selected for the Facility.

The former Facility property consists of approximately 10.3 acres located at the southwest corner of the intersection of Ansborough Avenue and Highway 218 in Waterloo, Iowa. The Facility has one main building comprised of several additions, and several small storage buildings. The ground surface around the buildings is covered by parking areas, driveways, railroad right of ways, landscaped areas and city streets. Land use surrounding the Facility is a mixture of light industrial and residential. The Cedar River is located approximately ¼ mile north of the Facility.

Waterloo Industries and prior owners of Waterloo Industries conducted manufacturing operations at the Facility, including metal fabrication, from approximately 1946 to 1997. Solvents, primarily tetrachloroethylene, were released at or near a former solvent storage tank (Area of Concern 5) and constitute the main source of contamination to groundwater, sub-slab soil and indoor air via vapor intrusion.

The Facility is currently owned by JRL Holding Company, LLC, with two tenants leasing space within the Facility. The building currently contains a recycling operation which utilizes warehouse, water treatment and material processing equipment at the Facility, as well as limited self-storage space and a gym.

A RCRA Facility Assessment was completed by an EPA contractor in 1996 and identified 28 Solid Waste Management Units and 11 AOCs. Several investigations of limited scope were conducted between 1997 and 2009 by Waterloo Industries and the EPA, which revealed contamination in soil, groundwater and vapors beneath the building slab. These investigations revealed that AOC 5 was the primary source of contaminants. A RCRA Facility Investigation was conducted in several phases between 2011 and 2014, and the RFI report was finalized in 2015.

Printed on Recycled Paper

The RFI determined that a plume of solvent-contaminated groundwater is present in the perched aquifer beneath the Facility and originates in the contaminated soil beneath the building slab near AOC 5. This plume flows generally east and downward through the soils until it meets the bedrock, and then flows generally southwest in the bedrock aquifer. The groundwater plume has been delineated and does not appear to be flowing off-site at concentrations exceeding the cleanup standards (drinking water standards) defined for the Facility.

The RFI also determined that high concentrations of contaminant vapor are present beneath the building slab due to the AOC 5 soil and groundwater contamination, but that indoor air concentrations of these vapors are below health-based standards in all locations tested with the exception of the supervisor's enclosed office in the middle of the warehouse floor where the indoor air concentration of trichloroethylene exceeded its Regional Screening Level value. Other contaminants found in indoor air above their RSL values do not appear related to the AOC 5 contamination as they were not found in the sub-slab vapor samples.

The RFI found that soil contaminated by volatile organic compounds was limited to a small area under the building slab near AOC 5. A small area of soil contaminated by polycyclic aromatic hydrocarbons including benzo(a)pyrene, benzo(a)anthracene and benzo(b)fluoranthene was found in surface soils north of the main building near the former wastewater treatment area. Surface soil in this area was found to be fill material brought to the Facility for grading purposes, and the PAH contamination is apparently not related to Waterloo Industries operations.

There have been no interim measures to mitigate exposures to contaminants at the Facility.

SELECTED REMEDY

The selected final remedy for the Former Waterloo Industries Facility is the same as that proposed in the Statement of Basis and consists of the following:

Soil

- Operate a dual-phase vacuum extraction system to remediate the adsorbed residual source of VOCs by extracting vapors from the shallow soil beneath the building slab at AOC 5.

Vapor Intrusion

- Operate the dual-phase vacuum extraction system to maintain a negative pressure beneath the building slab to prevent vapor intrusion (including start-up testing of exhaust vapors and ambient air as discussed in the responses to comments above); and
- Install a separate sub-slab depressurization system specifically for the supervisor's office to prevent accumulation of vapors.

Ground Water

- Operate a dual-phase vacuum extraction system to remove contaminated groundwater in the highest-concentration portion of the plume beneath the building slab near AOC 5; and
- Implement a groundwater remedy performance monitoring program. In general, this will include groundwater sampling at least annually and analysis for VOCs and geochemical parameters to evaluate the effectiveness of the dual-phase vacuum extraction system and whether natural

attenuation of the plume is occurring.

Institutional Controls

Implement institutional controls through environmental covenants in accordance with the Uniform Environmental Covenants Act (Iowa Code Chapter 455I), to include the following:

- Restrict land use to non-residential purposes;
- Prohibit the use of groundwater;
- Provide notice for construction projects involving excavation or de-watering in the vicinity of AOC 5;
- Provide notice for construction projects involving disturbance of surface soil contaminated with PAHs above RSLs north of the main building; and
- Maintain the concrete slab of the building as a cap preventing exposure to contaminated soil beneath the slab.

PUBLIC PARTICIPATION ACTIVITIES

A 77-day public comment period was held from January 4, 2016 through March 21, 2016. A public notice announcing the availability for public review of the Statement of Basis and the associated Administrative Record documents was published in Waterloo-Cedar Falls *Courier* on January 4, 2016. Fact sheets were mailed to congressional contacts and persons having previously expressed interest in environmental issues at the Facility as well as residents and property owners near the Facility. The Statement of Basis and Administrative Record were available throughout the public comment period at the Waterloo Public Library, 415 Commercial Street, Waterloo, Iowa and the EPA Regional Records Center, 11201 Renner Boulevard, Lenexa, Kansas. The Statement of Basis was also made available on the EPA Region 7 website.

The EPA received a citizen request for a public hearing via US Mail on January 11, 2016. After clarifying the type of meeting the requestor wanted, the EPA scheduled a public meeting for March 14, 2016, in the city of Waterloo. The EPA published a notice in the *Courier* on February 4, 2016, notifying the public that this meeting would be held and extending the public comment period to March 21, 2016.

PUBLIC COMMENTS AND THE AGENCY'S RESPONSE

The public meeting was well attended and the EPA responded to numerous oral questions and comments from the public, but no written comments were received during the meeting.

The following summarizes written comments on the proposed remedy that were received from the public during the comment period, and provides the EPA's responses to these comments.

COMMENT 1: One commenter expressed concern about contaminants that would be released to the air by the proposed dual-phase vacuum extraction system and potential health risks to the community from those releases.

RESPONSE 1: Vacuum extraction and venting of extracted vapors to outside air is a standard practice for remediation systems that allows vapors to dissipate safely and prevent their build-up in enclosed spaces. However, the EPA recognizes the commenter's concerns about potential exposure to the contaminants which will be vented from the dual-phase extraction system. Once the system is installed,

the Facility will conduct ambient air testing and start-up testing of the exhaust from the system, with the EPA oversight, to measure the contaminant concentrations and compare them to health-based standards. This data will be shared with the public, and if the system exhaust is found to pose any unacceptable risks to the public, modifications to the system's design and/or operation will be made to mitigate these risks.

The following summarizes general categories of verbal questions received during the public meeting on March 14, 2016, and the EPA's verbal responses to those questions.

Several questions were asked about possible impacts to surface water, including the nearby Cedar River, and about possible impacts to off-site groundwater. The EPA responded that the extent of groundwater contamination was well-defined, and that off-site monitoring wells installed specifically to check for off-site contamination had not detected any contaminants. The EPA also noted that the contaminated groundwater was not discharging to surface water. The EPA pointed out that residents' drinking water is not at risk, since the City's water supply is separate from the contaminated groundwater at the Facility.

Several questions were asked about the proposed dual-phase extraction system, how it would be installed and operated, and particularly how the exhaust from the system would be monitored. The EPA responded that the system had not yet been designed so specific answers could not be given, but that in general the vapors extracted from beneath the building slab would be exhausted through a pipe above the roofline of the former Waterloo Industries building, so that they could dissipate before they could pose any unacceptable risks to the public. The EPA acknowledged residents' concerns about releasing contaminants to the air and committed to including sampling of ambient air and the vented vapors as necessary during startup in the design plans for the system, to assess any potential risks to the public.

Several questions were asked about the potential health effects of exposure to the types of contaminants found at the Facility, and if there were health risks associated with items stored at the self-storage Facility located in the former Waterloo Industries building. An EPA toxicologist at the meeting discussed the potential health effects of exposure to the contaminant vapors, both for current workers at the Facility and for local residents, and explained that at the low concentrations found in the former Waterloo Industries building no health effects were expected. The EPA also explained that these contaminant vapors would not somehow contaminate or damage items stored in the building at the low concentrations found there. [The EPA also received a written question on potential health risks associated with items stored at the Facility and responded in writing with the same answer.]

A member of the public who works at a company that currently occupies the former Waterloo Industries building indicated that workers had not been directly notified of the EPA's public meeting and didn't know about the contamination at the Facility. The EPA described the contamination at the Facility and noted that this information had been shared with the building's current owner. The EPA added the employee to its mailing list for future Facility-related notices and provided contact information to all meeting attendees so they could call or email the EPA with questions at any time.

The EPA was asked who would be paying for the remedy, and how long it would take to complete. The EPA responded that the successor corporation to Waterloo Industries, Fortune Brands, had been paying for the investigation work and would pay for the cleanup as well. The EPA stated that it was impossible to predict how long it would take to fully clean up the Facility, but that one of the goals of installing the proposed remedy is to protect workers in the building from exposure to the contaminants beneath the building slab while the contamination in soil and groundwater at the Facility is being cleaned up.

DECLARATIONS

Based on information contained in the Facility files, the EPA Region 7 has determined that the selected final remedy for the Former Waterloo Industries Facility is appropriate and will be protective of human health and the environment.

Becky Weber 6/14/16

Becky Weber, Director Date
Air and Waste Management Division
EPA Region 7