



Statement of Basis Released: Public Comment Period Open

Radio Materials Corporation

Attica, Indiana

October 2022

Public Meeting

EPA encourages you to access the proposed remedy details and the Site records available at

[Hazardous Waste Cleanup: Radio Materials Corporation Facility - Attica, Indiana | US EPA](#)

For More Information

If you have questions or comments on the Statement of Basis, contact:

For general questions:

Francisco Arcaute
EPA Community
Involvement Coordinator
arcaute.Francisco@epa.gov
312-886-7613

EPA's Role

In 1998, EPA and RMC entered an Administrative Order on Consent (Order) requiring that RMC investigate and clean up contamination released at its property and establishing EPA oversight of the remedial process. The Order was issued under the authority of Section 3008(h) of the Solid Waste Disposal Act (commonly referred to as the Resource Conservation and Recovery Act of 1976, "RCRA"), as amended by the Hazardous and Solid Waste Amendments of 1984, 42 U.S.C. § 6928(h).

U.S. Environmental Protection Agency (EPA) is seeking public comment on the proposed cleanup for the Radio Materials Corporation (Site or RMC) in Attica, Indiana. During a prior investigation, EPA determined that former owners and operators of the Site released chlorinated volatile organic compounds, or cVOCs, and other chemicals into the environment. These contaminants then migrated outside of property boundaries.

After issuing the consent Order in 1999, a multi-media investigation was initiated at the Site to determine what was released and where contaminants may have traveled, as well as to determine the potential health risks and environmental effects of the identified contamination. Based on the potential risks associated with the exposure to these cVOCs, interim measures were taken at and near the Site to abate the imminent exposures: (1) treatment was included in the City's drinking water system; (2) vapor mitigation systems were installed in homes located over the contaminated southern plume; (3) contaminated soil and waste materials were managed through treatment or disposal; and (4) A hydraulic containment and treatment system prevented the contaminated southern plume groundwater from moving beyond the Site boundary (*this system is currently being replaced by a permeable reactive barrier system to optimize containment and treatment efficiency). The existing exposure and migration controls implemented and operating since 2008 serve to meet the EPA's short-term goal of protecting human health and controlling the migration of contaminated groundwater beyond the Site boundary. EPA continues to oversee the performance of these cleanup measures. The additional remediation actions outlined in the Statement of Basis document are necessary to reduce on-site and off-site cVOCs in groundwater and soil to safe levels.

Public Review and Comment

EPA has issued the Statement of Basis document to share with the public the details of the Site's history, the studies that have been completed, and a detailed description of the cleanup items proposed above. That document, along with the Site's legal Administrative Record, is available online at [Hazardous Waste Cleanup: Radio Materials Corporation Facility - Attica, Indiana | US EPA](#)



Radio Materials Corporation, Attica, Indiana

Background

The RMC site is located in west central Indiana at 1095 East Summit Street in the northeastern portion of the City of Attica, Fountain County. Located in a residential-agricultural area, the Site occupies approximately 19.5 acres and is bordered on the northwest, north, and northeast by undeveloped land, to the south and southeast by residences, and to the south by Ravine Park. RMC began operating at its Attica location in 1948. Processes conducted at the Site included the manufacture of television tubes and ceramic components such as capacitors and resonators for the electronics industry. Manufacturing operations released cVOCs such as trichloroethene (TCE) and tetrachloroethene (PCE) to soils at the Site. Some of these contaminants reached groundwater and moved off the RMC property to the north and northwest. Based on the extensive investigation of contaminated soil and groundwater, interim measures were implemented to address the released cVOCs with EPA's oversight.

How to Comment

EPA project contacts will be available in-person to answer your questions on Wednesday, November 2, from 5-7 pm at Attica City Hall, located at 305 E. Main St. in Attica, IN. COVID protocols will be followed during the open house, which are subject to change.

EPA will receive and document all comments sent between October 25 and November 24, 2022.

There are several different ways to submit comments on the proposed Statement of Basis:

- **By confidential voicemail** at 312-886-7613
- **By website**, directly at:
<https://www.epa.gov/publicnotices/public-comment-proposed-cleanup-plan-radio-materials-corporation-rmc-attica-indiana>
- **By email** to Arcaute.Francisco@epa.gov
- **By mail** to Francisco Arcaute
U.S. EPA Region 5
External Communications Office
77 W. Jackson Blvd. EC-19J
Chicago, IL 60604-3590

Proposed Cleanup

A low level of groundwater and surface soil contamination remains within the property boundary and in some off-site areas after implementing the interim measures. EPA's final remedy objective is to ensure that conditions remain protective in current and future exposure conditions. Additionally, any remaining contamination should be removed, reduced, or contained. These objectives are to be achieved by implementing and/or maintaining a combination of engineering and enforceable institutional controls to meet the above conditions.

EPA is proposing the following to address the remaining risk associated with work direct contact with soil, residential drinking water, and soil vapor inhalation exposure pathways. Some of the existing remedies will be continued until the environmental standards are met. EPA proposes these remedies after carefully considering all the available remedy options or alternatives provided to meet the remedial objectives.

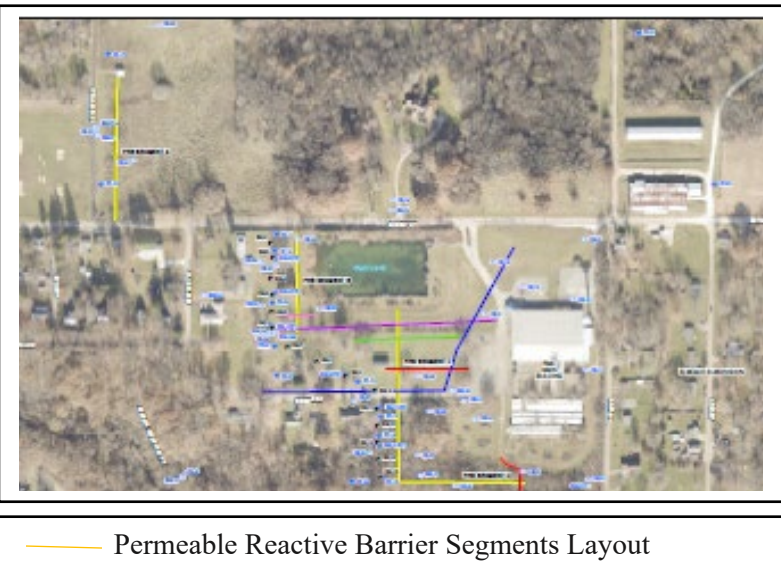
- Treat cVOC-impacted soil using In-Situ Chemical Oxidation technology; operate and maintain city water treatment system and vapor mitigation solutions; maintain the PRB after evaluating the performance efficiency associated with groundwater migration control and reduction of contaminant levels beyond the Site boundary.
- Utilize Monitored Natural Attenuation, or MNA, to ensure groundwater cleanup goals are reached; and
- Enforce institutional controls or ICs, and long-term stewardship to ensure the property remains safe for workers and restricts use of the Site to industrial purposes in the future. Maintain the City's groundwater ordinance that prohibits the use of groundwater.

Summary of Cleanup Methods

Land Use Controls

Land Use Controls include engineering and physical barriers, such as fences, as well as ICs. ICs are administrative/legal tools that do not involve construction or physically changing a site.

The proposed on-site ICs are: (1) an Environmental Restrictive Covenant (ERC) to limit land, soil, groundwater and building use and (2) a governmental control, which is the current City of Attica Environmental Restrictive Ordinance (ERO) that prohibits the installation and use of private wells within the City Limits.



The proposed off-site ICs are two government controls: (1) the current City of Attica Environmental Restrictive Ordinance (ERO) that prohibits the installation and use of private wells within the City Limits and (2) a mechanism will be developed in cooperation with the City of Attica to provide notifications to residents within the Vapor Intrusion Study (VIS) Area that these systems must be monitored and maintained, and that any new construction within the VIS Area must include the installation of a vapor intrusion mitigation system (such a notification could be implemented through an ERO or a local building permit requirement).

Soil Components

Passive venting technology will be used in contaminated soil areas using existing soil vapor extraction (SVE) infrastructure. This technology will remove VOCs and introduce oxygen to promote degradation of cVOCs. The chemical oxidation treatment is anticipated to reduce the remaining deep soil contamination in isolated locations within the waste disposal area south of Summit Street. Pavement cover will be retained in the former degreaser area where the existing RMC concrete building footprint is present.

Groundwater Components

Groundwater monitoring will be used to ensure that natural attenuation mechanisms remain effective, and the plume remains within the Site boundaries. Plume behavior will be monitored using a higher monitoring frequency during the first 5 years to assess the characteristics of the Northern Plume.

The permeable reactive barrier (PRB) which is currently being installed as an interim measure is expected to be more effective than the previously operated groundwater extraction and treatment and air sparging and SVE systems at preventing the downgradient migration of cVOCs in the southern groundwater plume beyond the Site boundary. Following the completion of PRB construction, a series of groundwater performance sampling events will be conducted at existing groundwater monitoring locations. Continued use of the PRB as a final remedy measure to control the migration of contaminated groundwater is contingent upon the performance evaluation of this interim remedy.

Long-Term Stewardship/Five Year Remedy Review

EPA will require RMC to establish a long-term stewardship plan, including monitoring and reporting, for the duration of time contamination remains on-Site above unrestricted industrial use levels. Within the first three years of the final remedy decision, remedy optimization and monitoring frequency decisions will be made based on the performance efficiency of the engineering controls and monitored data. After this period, as part of the long-term stewardship plan, every five years from the date of the EPA's final remedy decision, RMC will review the efficacy of all the above remedial and monitoring components.

You're invited to view an online presentation about...

EPA's Statement of Basis for the Radio Materials Corporation Site Public Comments Accepted from October 25 to November 24, 2022

The Statement of Basis documents describe the process EPA uses under RCRA to select measures for containing or cleaning up a hazardous waste management facility. Specific information in the documents include description and environmental setting of the facility, names and concentrations of contaminants detected at the facility, associated exposure pathways, selected remedy, and innovative technologies considered in determining the remedy, and public involvement requirements under the corrective action.

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