

# LUCKEY SITE - Formerly Utilized Sites Remedial Action Program (FUSRAP)

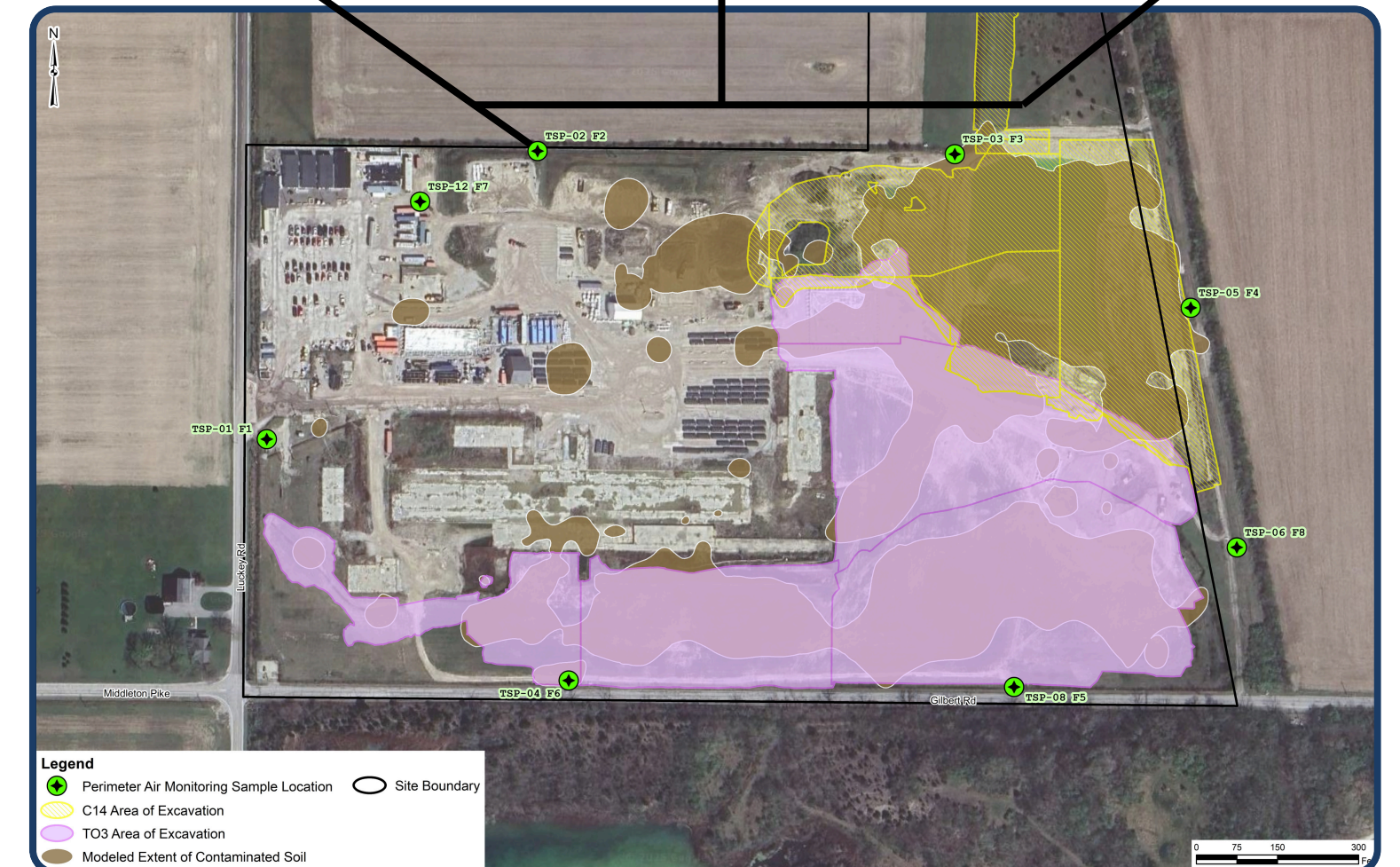
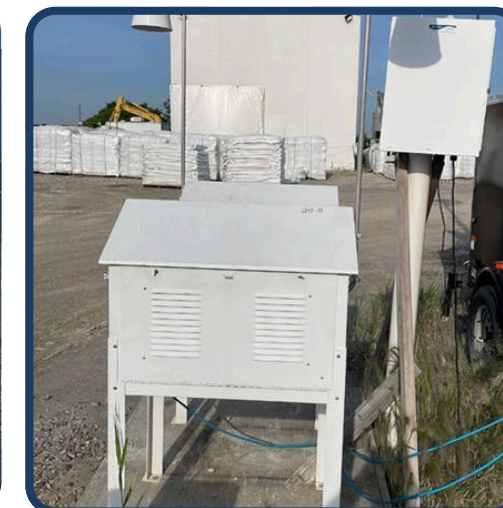
## Air Monitoring Information

### Why is the U.S. Army Corps of Engineers (USACE) Monitoring?

- Remediation of soil and removal of buildings can release dust with contaminants into the air.
- Engineering controls are used during excavation and waste handling to reduce airborne contaminants.
- Continuous air monitoring for site contaminants ensures effectiveness of safety controls.
- These efforts protect both on-site workers and the surrounding community.

### USACE Approach to Air Monitoring: What and How?

- **Personal Breathing Zone:** Select on-site workers wear individual monitors that are analyzed daily for lead and beryllium.
- **Work Zone:** Mobile monitors are positioned near active work areas during operations.
- **Perimeter:** Eight stationary air monitors that can detect dust and radiological particulates operate 24/7 along the site boundaries, ensuring real-time radiation control.
- **Monitoring Scope:** Work zone and perimeter locations are monitored for total suspended particulates (TSP), gross alpha and beta, lead, and beryllium. All samples are analyzed at our on-site accredited lab.
- **Additional Monitoring:** Air quality is also monitored in work trailers and site access areas.



All surface and air monitoring data show that there has been no spread of FUSRAP materials off-site above regulatory limits.



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### FUSRAP

- The Formerly Utilized Sites Remedial Action Program (FUSRAP) addresses contamination resulting from the nation's early atomic energy program.
- The program was established in 1974 because of activities by the Manhattan Engineer District and the prior Atomic Energy Commission, both predecessors of the U.S. Department of Energy (DOE).
- In 1997, Congress transferred FUSRAP responsibilities from DOE to USACE.

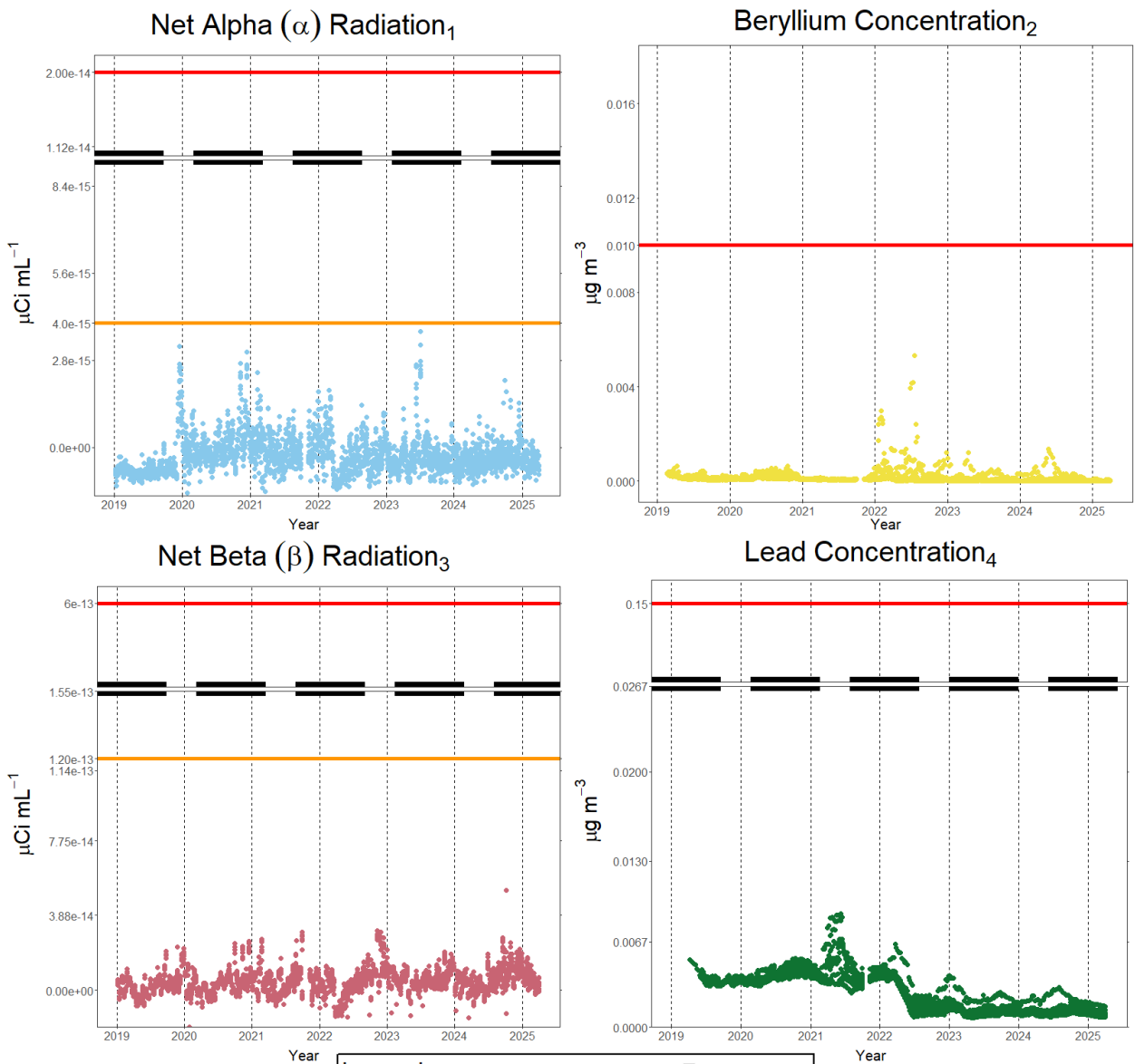
### FUSRAP Objective

- To safely, effectively, and efficiently:
- Identify and evaluate sites where authority and the need for a response action exist.
  - Cleanup/control FUSRAP sites to ensure protection of human health and environment.
  - Dispose of or stabilize FUSRAP eligible material in a way that is safe for the public and the environment.
  - Perform work in compliance with federal, state, and local environmental laws and regulations.
  - Return sites for appropriate future use.



A dedicated USACE team (including industrial hygienists, health physicists, chemists, safety and health officers, and engineers) coordinates closely with on-site workers to maintain safety during FUSRAP material cleanup activities.

### Monthly Concentration (Filters Changed Weekly)



#### Regulatory Limits and Action Levels

Legend: Regulatory Limit (Red line), Action Level (Yellow line), Y-Scale Break (Black dashed line)

1- Regulatory Limit 2.0E-14 uCi/mL; Site Action Level\* 4.0E-15 uCi/mL; 10 CFR 20, Appendix B, Values for Th-230, Class W used as most conservative surrogate for alpha activity. Derived Air Concentration, occupational value for inhalation, assumes exposure limited to 2000 hours/year. Most conservative inhalation properties assumed of radionuclide, controls dose to the public, annual average.

2- Regulatory Limit 0.01 ug/m3; 40 CFR 61 Part C, National Emission Standard for Beryllium. NESHAPS ambient air standard for beryllium production facilities, 30-day average.

3- Regulatory Limit 6E-13 uCi/mL; Site Action Level\* 1.2E-13 uCi/mL; 10 CFR 20, Appendix B, Value for Pb-210 Class D because it is the long-lived beta-emitting radionuclide with the most restrictive occupational and effluent limits. Derived Air Concentration, occupational value for inhalation, assumes exposure limited to 2000 hours/year. Most conservative inhalation properties assumed of radionuclide, controls dose to the public, annual average.

4- Regulatory Limit 0.15 ug/m3; Ohio Administrative Code 3745-25-02 (F), Ohio Ambient Air Quality Standard for lead, arithmetic mean concentration over 3-month period.

\*- Action levels are 20% of the Regulatory Limit (As Low As Reasonably Achievable [ALARA] requirement) and require on-site activities to be paused in order to evaluate controls, activities, and the need to implement corrective measures.

### Best Management Practices & Safety Measures

We implement engineering control best management practices to prevent the spread of contamination off-site. Key measures include:

- Comprehensive air monitoring in personal, work zone, and perimeter areas.
- Decontamination of equipment and materials moved between site zones.
- Routine sampling of work areas, trailers, equipment, vehicles, personnel, and offices with analysis in our accredited on-site lab to ensure contamination does not leave the work areas.
- Regular cleaning of trailers and offices to ensure contamination-free environments.
- Dust control using water trucks and misters during building deconstruction and concrete slab removal.
- Applying biodegradable stabilizers on exposed soil, debris piles, surfaces, and high-traffic areas to protect over weekends and against unfavorable weather conditions.
- Installing geosynthetic fabric and clean stone for site stabilization.
- Tarping of on-site haul trucks to contain dust and debris during transport.

### Contact Us

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