



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
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Dear Mr. Mowrey and Mr. Zygmunt:

This is the response to your September 30, 2015, Information Quality Guidelines (IQG) Request for Correction (RFC), #15004, submitted on behalf of Walter Coke, Inc. (Walter Coke). In the RFC, you requested that the U.S. Environmental Protection Agency correct information that has been disseminated to the public regarding the EPA's sampling and cleanup decisions at the 35th Avenue Superfund Site (Site) located in Birmingham, Jefferson County, Alabama. It is important to note that the EPA has addressed similar claims made by Walter Coke on two prior occasions through EPA response letters dated February 7, 2014, and April 11, 2014. These response letters are enclosed for your review. Further, the EPA has offered Walter Coke the opportunity to conduct the sampling investigation and removal actions at the Site on multiple occasions. Each time, Walter Coke has declined to do so. The EPA addresses the claims made in this RFC below.

### **Summary of the RFC**

The RFC petitions the EPA, under the Information Quality Act, "to promptly correct inaccurate and misleading data and cleanup decisions" that the EPA has disseminated to the public regarding its ongoing removal action at approximately 1,100 properties surrounding the Walter Coke facility located at 3500 35th Avenue, Birmingham, Alabama, 35207, making up the Site. The RFC primarily focuses on the EPA's use of x-ray fluorescence (XRF) as a screening tool for the detection of arsenic and lead in soils and the decision to conduct removal actions at 321 of the sampled properties. Specifically, the RFC makes the following claims:

- The EPA relied solely on XRF data in 86 percent of the soil samples taken when making decisions for removal actions.
- The statistical comparison of the laboratory and the XRF results for the remaining 14 percent of soil samples indicates that the XRF results are meaningless because they are so weakly related to actual soil concentrations.
- The EPA data and resulting cleanup decisions lack objectivity and utility because they are:
  - Inaccurate and unreliable by comparing the XRF data and the laboratory results;
  - Unclear and incomplete because the EPA withheld the XRF data and the resulting cleanup decisions; and
  - Biased in favor of cleaning up properties regardless of need.
- Lastly, the EPA did not follow the EPA Region 4 Superfund Division's Technical Services Section's (TSS) recommendations that were made in a Site-specific Memorandum entitled

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“Recommendations for Use of XRF and Sieving of Soils,” that is dated February 12, 2013 (TSS Memo).

The RFC makes the following allegations and requests that the EPA communicate the following as corrections to the public:

- The EPA’s XFR data is flawed.
- The XRF data is the exclusive source of metals data for 86 percent of samples.
- The EPA incorrectly disseminated the XRF data for many yards for which laboratory data was also available.
- The XRF data is so flawed that it cannot be used for making cleanup decisions or relied upon for any purposes, including for an Agency for Toxic Substances and Disease Registry (ATSDR) Health Consultation.
- It is likely that many of the cleanup decisions that the EPA has made based on the XRF data are wrong, and therefore, the EPA is withdrawing all such cleanup decisions for reevaluation.

### **EPA Response to the RFC**

The EPA takes its responsibility of ensuring data of known and documented quality very seriously when making cleanup decisions at Superfund sites. Despite the RFC’s claims of inaccurate and misleading data leading to unsupported cleanup decisions at the Site, the data used for all cleanup decisions have been accurate, reliable, and unbiased. For all but two properties that have been remediated by the EPA to date at the Site, laboratory data and/or the recommendations in the TSS Memo were used to support the need for the removal actions. Further, despite the RFC’s claim that residents have been misled based on inaccurate XRF readings, the EPA’s sampling efforts at the Site have correctly taken into account possible interferences that the presence of lead may cause arsenic results and followed the TSS Memo for analyzing such arsenic and lead samples accordingly.

The EPA’s sampling methodology at the Site is detailed in the Quality Assurance Project Plan (QAPP) that has been publicly available since October 2012 on the EPA On-Scene Coordinator (OSC) website (<http://www.epaosc.org/35Ave>). The sampling protocol laid out in the QAPP is the same protocol that the EPA worked with Walter Coke to develop during negotiations, before Walter Coke decided not to participate in the removal assessment. A copy of the QAPP was also provided to Walter Coke in a Freedom of Information Act (FOIA) response on January 8, 2014. As stated in the QAPP under Decision Inputs, the results from both the XRF and laboratory were used to make cleanup decisions. As stated in the QAPP under Decision Rule, EPA submitted 10 percent of the field screened data to the laboratory and all but two cleanup decisions were confirmed with laboratory data. As stated in the QAPP, the EPA followed the Field XRF Measurement protocol SESDPROC-107-R2 when using the XRF in the field. This protocol recommends that 10 percent of the field screening data go to the laboratory.

In addition, as referenced above, the EPA has responded to similar claims made by Walter Coke in this RFC on two prior occasions. Walter Coke previously claimed that the EPA was using bad data, misleading the residents, and making wrong decisions to clean up residential properties. The EPA’s responses were dated February 7, 2014, and April 11, 2014, and are enclosed with this response.

As of January 2016, the EPA has sampled approximately 1,300 properties and collected over 5,000 soil samples. These samples have been analyzed by a combination of XRF and laboratory analysis (gas

chromatography/mass spectrometry for polynuclear aromatic hydrocarbons (PAHs) and inductively coupled plasma for metals). The EPA specifically followed sections 4.1, 4.2, and 4.3 of the Field XRF Measurement protocol mentioned above. The EPA used the XRF “to supplement laboratory analysis to allow for the collection of large numbers of samples to provide detailed characterization of a site.” The limiting factors of this data were considered and addressed in the TSS Memo. The results from these analysis have identified approximately 400 properties that have exceeded the Regional Removal Management Levels (RMLs<sup>1</sup>) for lead, arsenic, and/or PAHs. To date, 160 properties have been remediated by the EPA. For 158 of the 160 properties, laboratory data and/or the recommendations in the TSS Memo were used to support the need for the removal action. For the remaining two properties,<sup>2</sup> XRF data for one of the properties indicated levels of arsenic at 61 ppm, which was at or above the RML (61 ppm), and the laboratory data indicated arsenic levels of 44 ppm, which was below the RML. Based on the data combined with the presence of young children residing at the property, the EPA determined that a removal action was necessary to protect children’s health and was not inconsistent with the National Contingency Plan (NCP). For the remaining property, lead was detected at a concentration of 524 ppm, above the RML (400 ppm), and no laboratory analysis was performed. As a result, only XRF data for this property was used as the basis for the removal action. Therefore, only two properties of the total 160 properties to date where a removal action has been conducted used XRF data alone as the basis for the removal action. While these two actions did not follow established protocols for the Site, both actions were protective of human health and not inconsistent with the NCP.

In addition to the validity of the EPA’s cleanup decisions at the Site, the EPA disagrees with the RFC’s claim that residents have been misled based on inaccurate XRF readings. The EPA’s sampling methodology correctly takes into account possible interferences that the presence of lead can cause with arsenic results. The TSS Memo, prepared by the EPA’s Technical Services Section analyzed the need for laboratory analysis for all arsenic and lead samples. A statistical analysis revealed positive correlation between the XRF readings and laboratory data within +/- 200 mg/kg of the lead RML of 400 mg/kg. As a result, XRF readings for lead below 200 mg/kg and above 600 mg/kg did not need laboratory analysis. However, for quality assurance purposes, when XRF readings for lead measured between 200 mg/kg to 600 mg/kg, these samples were sent to the laboratory for analysis. For arsenic, any XRF readings above 40 mg/Kg were sent to the laboratory for analysis. The only exception to this protocol for arsenic was in the event the XRF reading for lead exceeded 600 mg/kg where lead sampling alone warranted a removal action at the property. For every property, excluding the two property examples described above, the EPA collected laboratory data and followed the above protocols before a removal action was taken.

The RFC states the XRF data is so flawed that ATSDR should not use it in their Health Consultation. The decision of which data is appropriate for use in Health Consultations is made by ATSDR and not the EPA. ATSDR decided to use the EPA’s data in their Health Consultation for this Site and drew the same conclusions as the EPA.

For purposes of this RFC, the EPA has reviewed the totality of environmental data collected to date and determined that all cleanup decisions resulted in removal actions that are protective of human health and not inconsistent with the NCP, including the two actions described above that did not completely follow the established protocols. Thus, the EPA continues to follow the recommendations from the TSS Memo

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<sup>1</sup> RMLs are values used by the EPA to identify areas, contaminants, and conditions where an action may be necessary to protect human health and/or the environment. <http://www.epa.gov/risk/regional-removal-management-levels-chemicals-rmls>

<sup>2</sup> For these two remaining properties, the removal actions based on XRF data remediated only the top six inches of soil.

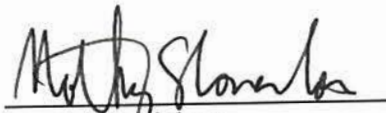
before taking any removal action on any property and the data used for decision making at the Site is accurate, reliable, and unbiased.

If you are dissatisfied with this response, you may submit a Request for Reconsideration (RFR). The EPA requests that any such RFR be submitted within 90 days of the date of EPA's response. If you choose to submit an RFR, please send a written request referencing the number assigned to the original Request for Correction (RFC #15004) to the EPA IQG Processing Staff via mail (Information Quality Guidelines Processing Staff, Mail Code 2811A, U.S. EPA, 1200 Pennsylvania Ave., N.W., Washington, D.C. 20460) or electronic mail ([quality@epa.gov](mailto:quality@epa.gov)). Additional information about how to submit a RFR can be found on the EPA IQG website (<http://www.epa.gov/quality/guidelines-ensuring-and-maximizing-quality-objectivity-utility-and-integrity-information>).

Sincerely,



Heather McTeer Toney  
Regional Administrator  
U.S. EPA Region 4



Mathy Stanislaus  
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