
RE: Evidentiary Supplement & Request for Regulatory Determination: Parcel A Off-Site Soil Export (AI #: 189914) (EPA Responses to Request IV - 4 questions)

Begley, Brian <Begley.Brian@epa.gov>

Wed, Sep 2 at 7:41 AM

To: Troy Astin <troy.astin@gmail.com>

Cc: amanda.levre@ky.gov <amanda.levre@ky.gov>, John Lyons@ky.gov <john.lyons@ky.gov>, Jarrod Bell@ky.gov <jarrod.bell@ky.gov>, April Webb@ky.gov <April.Webb@ky.gov>, Ladd, April <april.ladd@pppo.gov>

Mr. Astin

Disclaimer: These responses reflect the judgment of the EPA Regional Office site team based on the information that is available on soil removed from the Department of Energy's Paducah Parcel A property that is currently leased to General Matters.

1. Does the Commonwealth consider an off-site soil application resulting in a documented residential ELCR of 3.85×10^{-4} and a hazard index of 1.52 compliant with unrestricted residential safety standards?

This question was specifically directed to the Kentucky Energy and Environment Cabinet. However, note that the EPA's generally acceptable excess lifetime cancer risk (ELCR) range of $1\text{E-}06$ to $1\text{E-}04$ or below the target non-cancer hazard index (HI) of 1 is used by the EPA in making decisions for CERCLA sites. The EPA also typically eliminates chemicals that are naturally occurring or associated with site-specific background conditions from needing a response action [ref. 40 CFR 300.400(b) *Limitations on response*]. The ELCR of $3.85\text{E-}04$ and noncancer hazard index of 1.52 are based primarily on direct exposure to arsenic in subsurface soil. Arsenic was identified as background-related in Section 7.2.4 of the Leasing Parcel A data package. The exclusion of background risks from arsenic in subsurface soil results in a total ELCR of $1.64\text{E-}06$ and noncancer HI of 0.2. Thus, cancer and noncancer effects are unlikely for a future resident under unrestricted use/unlimited exposure to Leasing Parcel A subsurface soil. Note that the ELCR and HI for arsenic in surface soil were also within EPA's target risk range.

2. Does EPA Region 4 concur that removing soils from the federal footprint and placing them on private land maintains the industrial-only institutional controls required by CERCLA and the Federal Facility Agreement?

The EPA reviewed and provided concurrence on DOE's Parcel A Leasing Data Package and Leasing Agreement. During the review process, the EPA scrutinized these two documents determining that the terms and conditions within the lease agreement were consistent with safety and protection of public health and the environment, given certain restrictions, covenants, notifications, and acknowledgements, including restrictions on groundwater usage, and limitation of the leased area to industrial use. The EPA did not anticipate that soil located on DOE Paducah Parcel A property (being leased to General Matter) would be transported off DOE

property to a residential property. The EPA was informed in June by the Kentucky Department for Environmental Protection (KDEP) that soil from the General Matter lease site was observed being transported to a nearby private property on the east side of Hobbs Road. The EPA requested a meeting with DOE and KDEP regarding reassessment of the soil to include evaluation of risks under the residential and recreational use exposure scenarios via comparison of site surface and subsurface soil concentrations to the updated no action levels. The EPA's requested updates included a correction to the gamma shielding factor for radionuclides, which resulted in a 1.5 to 2-fold increase in the previously calculated risk levels for surface and subsurface soil. However, the cancer risk from combined chemical and radiological contaminants of potential concern remained within the EPA's generally accepted CERCLA acceptable risk range. Note that although the noncancer HI (1.63) for surface soil exceeded the EPA's threshold of 1, background-related chromium and manganese were the predominant contributors to the HI. The HI for surface soil excluding background concentrations of these inorganics was 0.5 which is below the threshold of 1. Although Parcel A is restricted to industrial use only, cancer and noncancer effects are unlikely for a future resident under unrestricted use/unlimited exposure to Leasing Parcel A soil.

3. Do the regulatory agencies accept narrative assumptions regarding wind direction as a legal substitute for empirical laboratory chromium speciation testing for soils placed in residential environments?

Sampling and laboratory data, not Narrative assumptions regarding wind direction, were used in assessing health risks from contaminants in soil. Below is an excerpt from the updated June 25, 2026 "Additional Human Health Risk Screening of Leasing Parcel A Surface Soil and Subsurface Soil" that describes the derivation of health risks from Leasing Parcel A soil under the residential and recreational use exposure scenarios, which applied empirical laboratory data for total chromium and reasonable maximum exposure assumptions in accordance with CERCLA guidance. See *Risk Assessment Guidance for Superfund (Parts A, B, D, E and F) Volume I, Human Health Evaluation Manual*. EPA/540/1-89/002, EPA, Office of Emergency and Remedial Response (December 1989); *Role of the Baseline Risk Assessment in Superfund Remedy Selection Decisions*, OSWER Directive 9355.0-30 (April 1991).

2.1 Resident Surface Soil Risks

The resident total excess lifetime cancer risk (ELCR) of the chemical COPCs in surface soil is $1.77\text{E-}5$ (Table 1), which is within the CERCLA acceptable risk range but exceeds the Kentucky target risk of $1\text{E-}6$ (the Kentucky target risk is provided as a point of reference). This total ELCR is essentially based entirely on chromium, which is identified in Section 7.2.4 of the Leasing Parcel A data package (DOE 2025) as being within the background range (i.e., while there were 3 exceedances of Paducah site-specific background out of the 15 sample results, the chromium results met all three of the *Kentucky Guidance for Ambient Background Assessment* (KDEP 2004) criteria. The criteria for applying KDEP ambient background values, used previously at PGDP for soil piles, are discussed in Section 7.2.4.1 of the Leasing Parcel A data package (DOE 2025). Also, chromium is assumed to be present as 100% chromium VI [Cr(VI)], which is not a likely realistic assumption. Typically, Cr(VI) is a minor component of chromium in soil. Without consideration of the chromium, the site-related total ELCR of COPCs in Leasing Parcel A surface soil of $1.16\text{E-}9$ for the resident is less than the Kentucky target range and the CERCLA acceptable risk range.

Also, chromium was not speciated when evaluating Parcel A soils as it was conservatively assumed that total chromium was 100% hexavalent chromium (the more toxic species), which is a common practice in Superfund risk assessments in the absence of chromium speciation. Wind direction was not a factor considered in the risk assessment for chromium because the risk screening assessments were based on analytically-derived investigation data for total chromium in historical soil samples collected within Parcel A. It was determined that three chromium surface soil results exceeded the provisional background concentrations for the DOE Paducah Site; however, these results did not exceed the Kentucky Energy and Environment Cabinet's ambient or regional background threshold values for soil, which are defined as the concentrations of naturally occurring inorganic substances and ubiquitous anthropogenic inorganic substances in the environment that are representative of the region surrounding the site and not attributable to an identifiable release See *Kentucky Guidance for Ambient Background Assessment* (EEC, 2004). There is no history of chromate treated water use or known release of that type of water in leased Parcel A area.

4. Does the Cabinet consider the continued off-site transfer of soils—now scaling between 115,000 CY (SWPPP) and 144,400.2 CY (GeM Cut/Fill Analysis) of uncontained sheet-flowing media during an active investigation—to be consistent with Kentucky's enforcement authority under KRS Chapter 224 and the Division of Waste Management's regulatory obligations?

This question appears to be specifically addressed to the Kentucky Energy and Environment Cabinet. As stated earlier, the EPA did not anticipate any soil originating on DOE Paducah Parcel A property would be removed and placed on a residential property. After learning about soil being transported offsite, the EPA reviewed the leasing agreement between DOE and the lessee and could not find any restrictions on excess soil being removed off DOE property. The EPA issued a Notification letter to DOE on July 20, 2026, and requested to be notified in a timely manner of any request by a lessee to remove soil from DOE Paducah Property. The recently executed Parcel B lease agreement (785 acres) restricts the Lessee from removing all environmental media (i.e. soil) from DOE property. This removal restriction is in section 5c (excerpt below) of the leasing agreement.

agreed to in writing. All environmental media either: (1) excavated by the DOE Prime Contractor as a SWMU, AOC or anomaly; or (2) excavated by the Lessee shall remain on DOE property outside of the Lease Premises, or, at DOE's discretion, sent to a third-party location for proper handling and/or disposal.

Parcel C (~188-acres) is currently under EPA review and there is a similarly worded restriction in that draft leasing agreement.

[REDACTED]

Senior Remedial Project Manager, Federal Facilities Agreement Manager (Paducah Site)
Superfund & Emergency Management Division | U.S. Environmental Protection Agency

61 Forsyth Street, SW

Atlanta, GA 30303

Phone: (229) 564-6529 | begley.brian@epa.gov

From: Troy Aslin <troy.aslin@gmail.com>

Sent: Sunday, August 23, 2026 8:48 AM

To: amanda.lefevre@ky.gov; john.lyons@ky.gov; Jarrod.Bell@ky.gov; April.Webb@ky.gov;
April.Ladd@pppo.gov; Begley, Brian <Begley.Brian@epa.gov>

Subject: Evidentiary Supplement & Request for Regulatory Determination: Parcel A Off-Site Soil Export (AI #: 189914)

Caution: This email originated from outside EPA, please exercise additional caution when deciding whether to open attachments or click on provided links.

TO:

Amanda LeFevre, Commissioner, Kentucky DEP
John Lyons, Cabinet Secretary, Kentucky EEC
Jarrod Bell, Director, Division of Enforcement, Kentucky DEP
April J. Webb, PE, Hazardous Waste Branch, Kentucky DWM
Brian Begley, Federal Facility Agreement Manager, U.S. EPA Region 4
April Ladd, Federal Facility Agreement Manager, U.S. DOE PPPO

FROM:

[REDACTED]
Troy Aslin, Resident, Paducah, Kentucky

Date:

August 21, 2026

SUBJECT:

Evidentiary Supplement & Request for Regulatory Determination: Parcel A Off-Site Soil Export (AI #: 189914)

I. Formal Evidentiary Supplement to Active Investigation

Commissioner LeFevre, thank you for your July 22, 2026, correspondence confirming the Cabinet is actively reviewing site documentation and risk assessments. EPA Region 4 also confirmed via email on August 21, 2026, that it is officially aware of this state-led investigation.

To support this joint oversight, I am submitting the attached Regulatory & Technical Audit, along with standalone

Exhibit A data extracts, as material evidence. This audit evaluates GeM's July 24, 2026, response letter to the Division of Waste Management (DWM) and demonstrates that GeM's claim of unrestricted safety directly contradicts its own referenced data.

II. Executive Summary of Audit Findings (Updated with SWPPP Refinement)

While GeM asserts the exported Parcel A soils meet risk-based screening levels for unrestricted residential/agricultural use, the underlying federal documentation proves otherwise:

- **Admitted Risk Exceedances:** The June 2026 Additional Human Health Risk Screening reports a residential subsurface cancer risk (ELCR) of 3.85×10^{-4} and a noncancer hazard index of 1.52—both exceeding safe regulatory thresholds.
- **Mathematical Errors:** GeM's screening acknowledges an error in the May 2025 risk update, stating an incorrect gamma shielding factor (0.2 instead of 0.4) was used, underestimating the uranium-238 radiation dose to residents by 1.5 to 2 times.
- **Invalid Assumptions:** GeM substituted empirical laboratory testing with narrative assumptions, claiming chromium is in the less-toxic trivalent form solely because cooling towers were located upwind.
- **Breach of Institutional Controls:** The DOE Leasing Data Package explicitly restricts the property to Industrial Use only and prohibits groundwater use. GeM bypassed these federal controls by moving the soil to the off-site Warford Property.
- **Updated Soil Transfer Volume:** Recent documentation reveals a major escalation in scope during an active state investigation. The revised July 15, 2026, SWPPP filed by Dumey Contracting officially projects **115,000 cubic yards** of soil movement across 30 disturbed acres. GeM's own July 24 Cut/Fill Analysis documents a **net export of 144,400.2 cubic yards**. **This comparison leaves approximately 29,400 cubic yards of soil unaccounted for between the two filings, indicating either unreported off-site placement or incomplete regulatory disclosure.** The SWPPP's drainage map depicts **20 acres of disturbed area sheet-flowing northeast toward Bayou Creek**, with only intermittent rock check dams and silt fence in place. **The July 15 SWPPP is the most recent state-filed permit document and therefore represents the Cabinet's official volumetric disclosure for the Warford site.**

III. Imminent Threat vs. Deferred Federal Oversight

EPA Region 4 recently stated that CERCLA protectiveness is evaluated during Five-Year Reviews, with the next review scheduled for 2028. EPA also clarified that updated toxicity values—including those for TCE—are being incorporated into the ongoing Remedial Investigation/Feasibility Study (RI/FS) and will be carried forward into future CERCLA decision documents.

However, this toxicity-update process applies only to new CERCLA documents and does not resolve protectiveness threats arising from current physical site conditions. The 2023 FYR explicitly states that protectiveness at PGDP presently relies heavily on passive institutional controls, such as warning signs, fencing, and riprap placed over acidic leachate seeps.

Waiting until 2028 is structurally inadequate when uncontained stormwater from the exported soil actively threatens to destabilize the very riprap and passive controls cited as protective in the 2023 FYR. The continued expansion of the soil transfer—now totaling up to 144,400.2 cubic yards as documented in GeM's July 24 Cut/Fill Analysis—significantly amplifies these hydrological risks, as the SWPPP explicitly maps 30 acres of uncontained sheet flow interacting with these precise watershed pathways.

Federal awareness of this investigation must translate into immediate CERCLA enforcement, not bureaucratic

deferral.

IV. Request for Formal Agency Determination

If the reviewing agencies cannot legally or mathematically justify the self-admitted exceedances and breaches of institutional controls detailed above, the Cabinet must immediately escalate this matter. I respectfully request the issuance of a formal Notice of Violation (NOV), an immediate halt to all off-site soil placement, and the execution of deep-core forensic sampling at the Warford Property.

I request that DWM and EPA formally clarify their regulatory positions on the record:

- 1. Does the Commonwealth consider an off-site soil application resulting in a documented residential ELCR of 3.85×10^{-4} and a hazard index of 1.52 compliant with unrestricted residential safety standards?**
- 2. Does EPA Region 4 concur that removing soils from the federal footprint and placing them on private land maintains the industrial-only institutional controls required by CERCLA and the Federal Facility Agreement?**
- 3. Do the regulatory agencies accept narrative assumptions regarding wind direction as a legal substitute for empirical laboratory chromium speciation testing for soils placed in residential environments?**
- 4. Does the Cabinet consider the continued off-site transfer of soils—now scaling between 115,000 CY (SWPPP) and 144,400.2 CY (GeM Cut/Fill Analysis) of uncontained sheet-flowing media during an active investigation—to be consistent with Kentucky's enforcement authority under KRS Chapter 224 and the Division of Waste Management's regulatory obligations?**



Troy Astin <troy.astin@gmail.com>

Clarification Regarding Parcel A Soil Removal Documentation

Troy Astin <troy.astin@gmail.com>

Wed, Sep 2 at 8:23 PM

To: cclymer@mccrackencountyky.gov <cclymer@mccrackencountyky.gov>

Judge Clymer,

I wanted to provide a brief clarification that may help reconcile the questions you raised publicly regarding the soil being removed from Parcel A and placed on private property in McCracken County. Earlier today, EPA Region 4 provided formal written responses to the regulatory questions surrounding Parcel A. Their statements directly address the issue you mentioned in your interview — specifically, whether any agency ever authorized soil to be taken off the DOE property.

EPA confirmed three points that may be important for your review as the county's chief executive:

1. EPA did not anticipate any soil leaving Parcel A.

EPA stated that during its review of the DOE lease and Parcel A data package, it did not expect or evaluate any scenario where soil would be transported off the federal footprint to private land. EPA only became aware of the off-site movement after Kentucky DEP observed trucks leaving the site.

2. EPA did not review or approve off-site soil placement.

EPA explained that the Parcel A lease did not contain any provision authorizing soil removal, and that EPA did not conduct any protectiveness review for off-site placement. EPA has since issued a Notification Letter to DOE requesting immediate updates and future notification of any soil-removal requests.

3. DOE has now changed future leases to prohibit soil removal.

EPA noted that the newly executed Parcel B lease (785 acres) now explicitly forbids the lessee from removing soil or other environmental media from DOE property. The draft Parcel C lease contains the same restriction. These changes were made after EPA learned that Parcel A soil had been taken off-site.

I'm sharing this because it directly addresses the question you raised publicly — whether any agency had authorized soil removal. EPA's written response indicates that no such authorization was issued prior to transport, and this aligns with the Kentucky Radiation Health Branch's recent clarification that unrestricted-use clearance "has not yet occurred."

If it would be helpful, I can forward the full EPA correspondence for your records.

Respectfully,

Troy Astin

Paducah, Kentucky



Troy Astin <troy.astin@gmail.com>

**Supplemental Transmittal: Newly Released Job Hazard Records for Parcel A
(Ref: Case 26-0678-C)**

4 messages

Troy Astin <troy.astin@gmail.com>

Sat, Jul 4 at 2:18 PM

To: <nathan.garner@ky.gov>

Cc: <stephaniec.brock@ky.gov>

Dear Mr. Garner,

Following up on my email from earlier, I am writing to provide you with additional documentation that directly addresses the information gap you identified in your previous correspondence.

You noted earlier that the RHB had not been provided documentation regarding Personal Protective Equipment (PPE) or job hazards for the Parcel A site. To ensure your office has a complete administrative record, I am forwarding the official Site Inspection Report (SIR) and Work Hazard Analysis (WHA) for the week of January 5 to 9, 2026. These records were just released to me by the Kentucky Division of Waste Management via an Open Records Request.

I am also including the baseline 2023 Four Rivers Nuclear Partnership (FRNP) Worker Safety and Health Program (WSHP), which contractually governs site-disturbance operations.

When reviewing these newly released state inspection records alongside the DOE risk screening document I sent previously, a concerning structural gap emerges: The January 2026 WHA for the 100-acre tree clearing appears to lack any of the mandated radiological hazard screenings or specialized PPE requirements that would correspond to the Uranium and Americium baselines explicitly acknowledged in the federal risk report.

I am providing these records so that the Radiation Health Branch is fully equipped with the contractor hazard data that was previously unavailable to you. I welcome any thoughts you might have on how these operational protocols align with the state's protectiveness standards.

Respectfully,

Troy Astin
Paducah, Kentucky
630-484-5255
Troy.Astin@gmail.com

Worker Safety and Health Program (Rev #6) (11-8-23).pdf, JHA Site Safety Orientation (Rev #15) (11-1-23).pdf

Garner, Nathan (CHFS DPH) <Nathan.Garner@ky.gov>

Mon, Jul 6 at 11:54 AM

To: Troy Astin <troy.astin@gmail.com>

Cc: Brock, Stephanie C (CHFS DPH) <StephanieC.Brock@ky.gov>, McKinley, Matthew W (CHFS DPH) <MatthewW.McKinley@ky.gov>

Mr. Astin,

Thank you so much for taking the time to gather all of this information and send it to us. I will review what you have sent and be in touch with you later this week.

Regards,

Nathan Garner

RADIATION HEALTH SPECIALIST

Kentucky Department for Public Health

Radiation Health Branch

100 Sower Blvd., Suite 108

Frankfort, KY 40601

Office: 502-564-8390

Cell: 502-229-7363

Radiological Emergency: 1-800-255-2587

From: Troy Astin <troy.astin@gmail.com>

Sent: Saturday, July 4, 2026 3:18 PM

To: Garner, Nathan (CHFS DPH) <Nathan.Garner@ky.gov>

Cc: Brock, Stephanie C (CHFS DPH) <StephanieC.Brock@ky.gov>

Subject: Supplemental Transmittal: Newly Released Job Hazard Records for Parcel A (Ref: Case 26-0678-C)

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Please contact the COT Service Desk ServiceCorrespondence@ky.gov for any assistance.

[Quoted text hidden]

Troy Astin <troy.astin@gmail.com>

Fri, Jul 10 at 5:16 PM

To: Nathan Garner <Nathan.Garner@ky.gov>

Cc: Stephanie C Brock <StephanieC.Brock@ky.gov>, Matthew W McKinley <MatthewW.McKinley@ky.gov>

Dear Mr. Garner,

Thank you again for the time and insight you afforded me during our phone call earlier today. I greatly appreciate your professional perspective and your continued dedication to public health in the Commonwealth.

As we discussed, I am following up to provide the documentation that mirrors the concerns surrounding the Paducah NPL site. I have attached two files to this email for your review:

The GAO Report (GAO-26-108193): The newly released 44-page July 2026 report from the Government Accountability Office, which details how the DOE's Office of Environmental Management has systematically bypassed independent expert review and prematurely excluded alternative, less expensive cleanup options for large projects.

The Companion Brief: My expanded legislative and oversight document, which clearly illustrates the direct points of alignment between the GAO's findings and the structural regulatory gaps currently active at the Paducah site—specifically regarding the "Greenfield Loophole" (10 CFR § 70.4) and the deployment of Categorical Exclusion CX-270853.

I believe these documents provide strong federal administrative validation for the compliance challenges your office is currently navigating.

When you have a moment, I kindly request that you review the questions I submitted in my most recent emails and provide a written response to the best of your ability. A formal reply from your office is incredibly valuable to ensure absolute clarity and accuracy on the

administrative record moving forward

Thank you again for your time today and for your assistance in this process.

Best regards,

[REDACTED]
Troy Asin

[REDACTED]
Paducah, KY

On Jul 6, 2026, at 11:54 AM, Garner, Nathan (CHFS DPH)
<Nathan.Garner@ky.gov> wrote:

[Quoted text hidden]

gao-26-108193.pdf, STRUCTURAL REGULATORY GAP AT PADUCAH GASEOUS
DIFFUSION PLANT (PGDP): A LIVE-ACTION VALIDATION OF GAO-26-
108193.pdf

Garner, Nathan (CHFS DPH) <Nathan.Garner@ky.gov>

Fri, Jul 17 at 2:52 PM

To: [REDACTED] <troy.asin@gmail.com>

Cc: Brock, Stephanie C (CHFS DPH) <StephanieC.Brock@ky.gov>, McKinley, Matthew W
(CHFS DPH) <MatthewW.McKinley@ky.gov>

[REDACTED]
Mr. Asin,

I appreciate you sending me these documents.

As you have requested, I have compiled here the questions we have not formally
replied to, and answered them to the best of my ability:

1. *I recognize that this parcel falls under federal NEPA and CERCLA authority, and
that the RHB does not directly regulate the site's daily clearing activities. However,
given the state's concurrent role in public health oversight and environmental
protectiveness, I respectfully request clarification on whether the documented:*

- a. *presence of non-natural radionuclides (U-236, Am-241)*

**Given the site's history of processing some amount of recycled
uranium during the cold war era, we have found and expect to find
low level releases of radionuclides originating in nuclear waste**

streams (especially if the radionuclides are capable of making it through the feed process into a form that can be aerially dispersed). Because of this, we ensure that an exhaustive list of these radionuclides are sampled and analyzed for when making determinations of risk. These specific radionuclides you noted were detected in a small number of samples, but at levels well below what would typically exceed our regulatory thresholds for free release.

b. *acknowledged calculation errors*

The errors in risk calculation were noted and examined by RHB, and although the way it was documented may be unusual, the resolution of these errors changes the output but not the determination. No risk thresholds (for industrial use) are exceeded even with the appropriate calculation.

c. *omission of residential COPC screening*

As the initial risk assessment effort was designed around demonstrating an appropriateness for industrial use only, and on DOE property limited to industrial use, RHB has concerns about soil from this site being used in any residential or agricultural capacity without additional sampling efforts. Soils from the DOE site must be adequately demonstrated to be compliant with the 25 mrem/yr unrestricted-use public Total Effective Dose Equivalent (TEDE) limit in 902 KAR 100:042, and that has not yet occurred.

d. *reliance on corrected-by-exclusion risk values*

I assume that this is in reference to the exclusion of Cr(VI) from the assessment. While we do not regulate chemical hazards, we find DOE's position to be justifiable based on the extremely short (on the order of days to months) typical environmental half-life of Cr(VI) and the time since deposition at a site (over a decade since operation).

alter the Radiation Health Branch's advisory perspective regarding the protectiveness baseline for surrounding communities.

I hope our responses are helpful, and I want to ensure you that our agency is making it a priority to verify that any materials moved from the DOE site do not threaten public health.

Regards,

Nathan Garner

RADIATION HEALTH SPECIALIST

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Radiation Health Branch

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Radiological Emergency: 1-800-255-2587

From: Troy Asin <troy.asin@gmail.com>

Sent: Friday, July 10, 2026 6:16 PM

To: Garner, Nathan (CHFS DPH) <Nathan.Garner@ky.gov>

Cc: Brock, Stephanie C (CHFS DPH) <StephanieC.Brock@ky.gov>; McKinley, Matthew W (CHFS DPH) <MatthewW.McKinley@ky.gov>

Subject: Re: Supplemental Transmittal: Newly Released Job Hazard Records for Parcel A (Ref: Case 26-0678-C)

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any assistance.**

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Troy Astin <troy.astin@gmail.com>

Protecting the GeM Project's Social Contract and Local Public Health from DOE-EM Failures

Troy Astin <troy.astin@gmail.com>

Sat, Jul 25 at 9:33 AM

To: <ccllymer@mccrackencountyky.gov>, <Randy.Bridges@lrc.ky.gov>

Cc: <Danny.Carroll@lrc.ky.gov>

To: ccllymer@mccrackencountyky.gov, Randy.Bridges@lrc.ky.gov

Cc: Danny.Carroll@lrc.ky.gov

Dear Judge Executive Clymer, Representative Bridges, and Senator Carroll,

I am reaching out to you as a resident who recognizes the critical importance of the General Matter (GeM) project to Paducah's economic future. I know you have advocated heavily for this facility, and our community is relying on its success to shape our path forward.

Right now, across the country, billions of dollars in investment potential for new data centers and tech facilities have been paralyzed by a breach of the social contract. In those communities, developers cut corners, prioritizing speed over the health and economic interests of the locals—leaving citizens deeply disappointed by diminished resources and externalized liabilities. I am writing to you today because we are on the verge of making that exact same mistake here in Paducah, and the Department of Energy's Office of Environmental Management (DOE-EM) is the root cause.

In an effort to avoid their own legacy cleanup responsibilities, DOE-EM is inappropriately externalizing massive environmental and regulatory risks onto the GeM project, simultaneously creating a severe public health liability for our local agricultural community.

Specifically, DOE-EM authorized the heavy industrial clearing of 100 acres on the legacy Superfund footprint (Parcel A) using a limited "forestry" Categorical Exclusion to bypass required environmental baselines. By failing to require standard radiological tracking, the federal government effectively allowed the project's local contractors to unknowingly

execute an improper transfer. The contractor, Dumey Contracting, Inc., physically transported approximately 65,000 cubic yards of potentially impacted soil and uncharacterized biomass off the federal site and dumped it onto a private agricultural property in our district—the Warford farm off Hobbs Road.

I have attached a formal Congressional Oversight Referral (GAO-REF-2026-PGDP-001) that I have submitted regarding this matter. While the document pulls no punches regarding the severe physical and environmental realities of the earthwork—including uncontained sheet-flow routing directly into Bayou Creek—it clearly traces the root cause of this watershed emergency directly back to DOE-EM's systemic misapplication of federal law.

Fortunately, our state regulators have been highly responsive. Both the Kentucky Energy and Environment Cabinet (EEC) and the Department for Public Health's Radiation Health Branch (RHB) have confirmed to me in writing that they are now conducting an active investigation into this unauthorized movement of material.

My concern—and the reason I am reaching out for your leadership—is the sheer complexity of the mess DOE-EM has created. To protect the GeM project's social contract with our citizens, we must ensure our state agencies have the political backing to execute a rigorous, non-standard investigation. Because of how the material was moved, standard testing will not be sufficient. I have placed the state on notice regarding two physical realities:

- **Radiological Concentration in Ash:** The uncharacterized biomass from the site was burned upon transfer. Burning this material destroys the carbon but leaves behind highly concentrated non-volatile radionuclides and heavy metals in the ash. To accurately capture this exposure pathway, our state inspectors will need to specifically target the burn piles and residual ash, rather than standard soil grids.
- **The 28-Inch Soil Masking Effect:** Spreading the 65,000 cubic yards of imported soil over the 16-acre receiving footprint mathematically equates to approximately 28 inches of physical fill dirt cover. If standard surface-level testing is used (scraping only the top 2 to 6 inches), it will only capture the newly imported clean dirt, missing the potentially contaminated native soil and buried debris beneath. Deep core sampling will be physically required to reach the necessary environmental layer.

As our elected representatives, I respectfully request that you reach out to Commissioner Amanda LeFevre (DEP) and the Radiation Health Branch to voice your support for their ongoing investigation. Specifically, your political backing for them to mandate deep-core sampling and targeted ash testing will ensure they have the leverage needed to hold DOE-EM accountable, protect our local farmers, and keep the GeM project on a secure

foundation of public trust.

Thank you for your leadership and for protecting Paducah's future.

Sincerely,

Troy Astin

Paducah, Kentucky

630-484-5255

Citizen Oversight Referral Alleged DOE NEPA Misuse and CERCLA Compliance Failures at PGDP GAO-REF-2026-PGDP-001.docx



Troy Astin <troy.astin@gmail.com>

FORMAL DEMAND FOR CORRECTION OF PUBLIC STATEMENT

2 messages

Troy Astin <troy.astin@gmail.com>

Sun, Sep 6 at 8:39 AM

To: cclymer@mccrackencountyky.gov <cclymer@mccrackencountyky.gov>,
<cfoster@mccrackencountyky.gov>

Cc: LeFevre, Amanda W (EEC) <Amanda.LeFevre@ky.gov>, Webb, April (EEC)
<april.webb@ky.gov>, jarrod.bell@ky.gov <Jarrod.Bell@ky.gov>, Nathan Garner
<nathan.garner@ky.gov>, Stephanie C Brock <stephaniec.brock@ky.gov>,
Begley.Brian@epa.gov <Begley.Brian@epa.gov>, Ladd, April <april.ladd@pppo.gov>,
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FORMAL DEMAND FOR CORRECTION OF PUBLIC STATEMENT

McCracken County Fiscal Court Paducah, Kentucky September 6, 2026

TO:

Judge/Executive Craig Clymer, McCracken County
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D. Cade Foster, McCracken County Attorney <cfoster@mccrackencountyky.gov>

CC:

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McCracken County Fiscal Court Commissioners:

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Submitted by: [REDACTED]

Filed pursuant to KRS 61.870–884, KRS 224.10-100, and KRS 224.10-420

I. Purpose of This Filing

This filing formally requests a correction to the McCracken County Fiscal Court's August 28, 2026 public release, which stated:

"The dirt being removed from the site is deemed safe for removal."

No federal or state agency has issued any determination deeming Parcel A soil "safe for removal," "safe for off-site placement," or "safe for residential/agricultural use." The Fiscal Court's statement conflates an "Industrial Use" authorization restricted to a federal reservation with an unrestricted off-site removal authorization.

The County's Open Records Act response produced no document containing any such determination.

The statement is therefore factually unsupported, contradicts the very Leasing Data Package cited by the County, and requires correction under Kentucky's public-records accuracy obligations.

II. Federal and State Record Contradictions

1. EPA Region 4: No authorization, no review, no approval

EPA Region 4's written response (Sept. 2, 2026) confirms the agency did not approve the export of this material:

- *"The EPA did not anticipate that soil... would be transported off DOE property to a residential property."*
- *"The EPA did not review or approve off-site placement."*

EPA has issued no determination of safety for off-site removal. The Fiscal Court's statement directly contradicts the EPA's administrative record.

EPA further noted that future leases now prohibit removal of environmental media because of what occurred at Parcel A.

2. DOE: Parcel A soil is restricted to industrial use only

The Fiscal Court's press release explicitly relied upon the publicly released Leasing Data Package to justify the soil movement. However, that exact document mandates strict institutional controls:

- *"The land use of the Leasehold will be restricted to 'Industrial Use.'"*

The package explicitly prohibits groundwater extraction or consumption.

Parcel A soil was never evaluated for residential or agricultural receptors, and the DOE issued no clearance for such use. By claiming the soil is "safe for removal," the Fiscal Court misrepresents the cited DOE document, which restricted safety determinations strictly to an industrial context.

3. Kentucky Radiation Health Branch: No unrestricted-use clearance

The Radiation Health Branch (RHB), as confirmed in the state correspondence record, has already issued the controlling radiological determination:

- *"Soils from the DOE site must be adequately demonstrated to be compliant with the 25 mrem/yr unrestricted-use public TEDE limit... and that has not yet occurred."*
- *"RHB has concerns about soil from this site being used in any residential or agricultural capacity without additional sampling efforts."*

RHB is the only state agency with statutory authority over radiological clearance. The Fiscal Court's statement contradicts RHB's determination.

4. Kentucky DEP: No authority to make a radiological 'no-risk' determination

Kentucky DEP has formally admitted its lack of jurisdiction regarding radiological contaminants:

- *"Kentucky DEP is not statutorily authorized to regulate radiological sources... Concerns and use restrictions for radiological materials should be addressed through the... Radiation Health Branch."*

Because DEP cannot legally deem the soil radiologically "safe," the Fiscal Court's statement cannot rely on DEP for blanket safety clearance.

5. EPA Region 4: Parcel A soil exceeded residential risk thresholds

EPA Region 4 confirmed the mathematical exceedances present in the subsurface soil prior to excavation:

- *"The ELCR of 3.85E-04 and noncancer hazard index of 1.52 are based primarily on direct exposure to arsenic in subsurface soil."*

These values exceed acceptable CERCLA and Kentucky thresholds. No agency has contradicted these physical exceedances. The Fiscal Court's statement is therefore inconsistent with the federal risk record.

III. Required Correction

Because the Fiscal Court's statement is directly contradicted by:

- EPA Region 4
- DOE's Leasing Data Package
- Kentucky Radiation Health Branch
- Kentucky DEP's admitted jurisdictional limits
- The federal risk assessment record

...the statement *"the dirt being removed from the site is deemed safe for removal"* must be corrected.

Requested Action

I respectfully request that the Fiscal Court:

1. Issue a formal correction stating that no federal or state agency has deemed Parcel A soil "safe for removal" or "safe for off-site placement."
2. Clarify that EPA did not authorize, review, or approve off-site soil movement to a residential property.
3. Acknowledge that the DOE's Leasing Data Package restricts safety conclusions to "Industrial Use" only and does not contain residential/agricultural clearance.
4. Acknowledge the RHB's determination that unrestricted-use radiological compliance "has not yet occurred."
5. Place this correction and this filing into the public administrative record and update the August 28 press release accordingly.

Because the County's statement communicates a public-health assurance, accuracy is mandatory under KRS 61.870-884.

These actions are required to ensure the accuracy of public communications and to maintain the integrity of the administrative record under KRS 224.10-100 and KRS 224.10-420.

IV. Notice of Continuing Documentation

I will continue documenting all discrepancies between public statements and the federal/state record for inclusion in the administrative file.

Respectfully submitted,

Troy Astin

Paducah, Kentucky

Eddie Jones <ejones@mccrackencountyky.gov>

Mon, Sep 7 at 8:47 AM

To: **Troy Astin** <troy.astin@gmail.com>

I don't think (actually I know) the fiscal court did not vote on that position. If one of us said something, it's just one public official saying something - not

necessarily a group finding of fact. I have no idea what is in that dirt. It did sound as if it was removed from an area southeast of the site which is the opposite of the direction I presume is the natural water flow - which would be north west toward the Ohio River. I'm interested in hearing what facts have developed since our last meeting.

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Sent: Sunday, 06 September 2026 08:39:28

To: Craig Clymer <ccllymer@mccrackencountyky.gov>; Cade Foster <cfoster@mccrackencountyky.gov>

Cc: LeFevre, Amanda W (EEC) <Amanda.LeFevre@ky.gov>; Webb, April (EEC) <april.webb@ky.gov>; jarrod.bell@ky.gov <Jarrod.Bell@ky.gov>; Nathan Garner <nathan.garner@ky.gov>; Stephanie C Brock <stephaniec.brock@ky.gov>; Begley, Brian@epa.gov <Begley.Brian@epa.gov>; Ladd, April <april.ladd@pppo.gov>; Bill Bartleman <bbartleman@mccrackencountyky.gov>; Richard Abraham <rabraham@mccrackencountyky.gov>; Eddie Jones <ejones@mccrackencountyky.gov>; Dena Scutt <dscutt@mccrackencountyky.gov>; OAGAppeals@ky.gov <OAGAppeals@ky.gov>

Subject: FORMAL DEMAND FOR CORRECTION OF PUBLIC STATEMENT

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ADDENDUM I – TECHNICAL CLARIFICATION ON METHOD REPORTING LIMITS (MRLs), DATA USABILITY BLIND SPOTS, AND REGULATORY EXPLOITATION

Submitted to:

U.S. Environmental Protection Agency, Region 4 Superfund & Emergency Management Division

Petitioner:

Troy Aslin, Independent Resident Oversight Paducah, McCracken County, Kentucky

Date: September 18, 2026

Purpose of Addendum

This addendum clarifies that the petition's citation of transuranic radionuclide data—including Neptunium-237, Plutonium-238, and Protactinium-234m—concerns the analytical limitations of the Method Reporting Limits (MRLs) rather than the absolute presence or absence of contaminants. Elevated MRLs paired with “U” (non-detect) flags constitute Significant Data Uncertainty under 40 CFR §300.420(b)(2) and independently require EPA Region 4 to initiate a Preliminary Assessment under CERCLA §105(d).

This addendum also documents how these analytical blind spots are being actively exploited through state permitting mechanisms to facilitate the off-site relocation of Parcel A media without required radiological clearance.

I. SW-846: A “U” Flag Does Not Mean “Absent”—It Means “Not Detectable at This Sensitivity”

Under EPA SW-846:

- A “U” flag indicates the analyte was not detected above the laboratory's reporting limit.
- It does not mean that the analyte is absent from the sample.

When the reporting limit itself exceeds health-protective screening thresholds, the laboratory is physically incapable of determining whether contamination is present at levels relevant to CERCLA risk evaluation. This creates a mathematical blind spot in the dataset.

II. Parcel A Data Exhibits Elevated MRLs That Mask Potential Contamination

The DOE Appendix B dataset contains multiple examples where the MRL exceeds the regulatory threshold, including:

“Protactinium-234m measured at 3.76 pCi/g but reported as non-detect due to a 6.86 pCi/g detection limit.”

This means:

- The sample contained measurable radioactivity.

- But the laboratory's sensitivity was too low to classify it as a positive hit.
- Resulting in a false non-detect under SW-846 conventions.

This is not a valid basis for dismissing radiological concern.

III. Elevated MRLs Constitute "Significant Data Uncertainty" Under Federal Law
40 CFR §300.420(b)(2) requires EPA to initiate a Preliminary Assessment when:
"significant uncertainty exists about the nature or extent of the release."

Elevated MRLs create exactly this condition:

- They prevent determination of whether contaminants exceed residential screening levels.
- They invalidate the dataset's ability to support unrestricted-use clearance.
- They undermine protectiveness determinations for off-site soil relocation.

Thus, the presence of "U-flagged" transuranics is not evidence of safety—it is evidence of insufficient analytical sensitivity, which independently triggers the PA requirement.

IV. Regulatory Exploitation of Analytical Blind Spots

The elevated MRLs are not merely technical deficiencies—they are being actively exploited within state permitting frameworks to facilitate off-site soil movement without required radiological review.

1. EPA Region 4's Written Admission EPA Region 4 has formally stated that it: "did not anticipate" that soil located on DOE Paducah Parcel A property would be transported off-site to a residential property. This admission establishes a federal oversight gap.

2. Kentucky Radiation Health Branch (RHB) Confirmation The Kentucky RHB—the sole authority for unrestricted radiological clearance under 902 KAR 100:042—confirmed on July 17, 2026, regarding the mandatory 25 mrem/yr TEDE clearance: "that has not yet occurred." This establishes a state radiological clearance gap.

3. Contractor Exploitation via KYR10 Stormwater Permits Despite these gaps, contractors are moving a documented 215,000 cubic yards of Parcel A media off-site (115,000 CY to the Warford site and 100,000 CY to the Hinkleville Road site) under KYR10 construction stormwater permits. In these permits, contractors:

- Falsely declare "N/A" under "TMDLs and Pollutants of Concern."
- Formally bypass state groundwater protections by checking the box asserting there are no activities requiring a Groundwater Protection Plan.

These declarations directly contradict:

- Confirmed detections of Tc-99.
- Enriched U-235 isotopic ratios.
- Transuranic signatures.

The elevated MRLs allow these contradictions to persist by masking contamination behind non-detect flags.

4. Combined Effect The interaction of federal non-anticipation, state non-clearance, contractor misclassification, and analytical blind spots creates a regulatory exploitation chain that enables unrestricted off-site relocation of CERCLA-origin media.

V. Confirmed Positive Detections Further Eliminate EPA's Ability to Rely on "U-Flag" Dismissals

In addition to the MRL blind spots, the dataset contains affirmative detections that cannot be dismissed:

- Technetium-99 detected at 37.9 pCi/L in groundwater well MW120.
- U-235 isotopic ratios measured at 0.61 wt% to 0.65 wt%, confirming depleted or processed anthropogenic uranium inconsistent with natural background (~0.711 wt%).

These results demonstrate that Parcel A media contains reactor-processed material, not native soil. EPA cannot rely on "U-flag" conventions to negate physical isotopic evidence.

VI. Conclusion

This addendum establishes that the petition's references to transuranic radionuclides highlight analytical insufficiency, regulatory exploitation, and operational misclassification, not misinterpretation. The elevated MRLs and resulting "U-flags" constitute Significant Data Uncertainty under 40 CFR §300.420(b)(2) and independently require EPA Region 4 to initiate a Preliminary Assessment under CERCLA §105(d).

Respectfully submitted,

