

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5

_____))
IN THE MATTER OF:))
)) CERCLA Docket No. V-W-22-C-011
Lindsay Light II, Operable Unit 27))
218 East Grand Avenue,))
Chicago, Illinois))
))
))
Respondent))
SC Grand Development LLC))
Proceeding Under Sections 104, 106(a),)) **ADMINISTRATIVE SETTLEMENT**
107 and 122 of the Comprehensive)) **AGREEMENT AND ORDER ON**
Environmental Response, Compensation,)) **CONSENT FOR REMOVAL ACTIONS**
and Liability Act, 42 U.S.C. §§ 9604,))
9606(a), 9607 and 9622))
_____))

**ADMINISTRATIVE SETTLEMENT AGREEMENT AND ORDER ON CONSENT FOR
REMOVAL ACTIONS**

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I. JURISDICTION AND GENERAL PROVISIONS

1. This Administrative Settlement Agreement and Order on Consent (“Settlement Agreement”) is entered into voluntarily by the United States Environmental Protection Agency (EPA) and SC Grand Development LLC (“Respondent”). This Settlement Agreement provides for the performance of a removal action by Respondent as set forth in the Work Plan, including recording deed restrictions on portions of the Site where soil, fill, or other solid material that exceeds the Removal Action Level may be present and the reimbursement of certain response costs incurred by the United States at or in connection with the following property identified as by parcel number and Cook County Parcel Identification Number (PIN):17-10-209-022-0000, located within the Lindsay Light II, Operable Unit (“OU”) 27, Superfund Site, bounded by commercial property and a condominium to the East, North St. Clair Street to the West, Grand Avenue to the South, and commercial property to the North, and located at 218 East Grand Avenue in Chicago, Cook County, Illinois, and depicted generally on the map attached as Exhibit A and described in the legal description attached as Exhibit B and known as the “Site.”

2. This Settlement Agreement is issued under the authority vested in the President of the United States by Sections 104, 106(a), 107, and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§ 9604, 9606(a), 9607 and 9622 (CERCLA). This authority was delegated to the Administrator of EPA on January 23, 1987, by Executive Order 12580, 52 Fed. Reg. 2923 (Jan. 29, 1987), and further delegated to Regional Administrators by EPA Delegation Nos. 14-14-A (Determinations of Imminent and Substantial Endangerment, Jan. 31, 2017), 14-14-C (Administrative Actions Through Consent Orders, Jan. 18, 2017) and 14-14-D (Cost Recovery Non-Judicial Agreements and Administrative Consent Orders, Jan. 18, 2017). This authority was further redelegated by the Regional Administrator of EPA Region 5 to the Director, Superfund Division, Region 5, by the Regional Delegation Nos. 14-14-A (August 24, 2015), 14-14-C (May 2, 1996) and 14-14-D (May 2, 1996).

3. EPA has notified the State of Illinois (the “State”) of this action pursuant to Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

4. EPA and Respondent recognize that this Settlement Agreement has been negotiated in good faith and that the actions undertaken by Respondent in accordance with this Settlement Agreement do not constitute an admission of any liability. Respondent does not admit, and retains the right to controvert in any subsequent proceedings other than proceedings to implement or enforce this Settlement Agreement, the validity of the findings of facts, conclusions of law, and determinations in Sections IV (Findings of Fact) and V (Conclusions of Law and Determinations) of this Settlement Agreement. Respondent agrees to comply with and be bound by the terms of this Settlement Agreement and further agrees that it will not contest the basis or validity of this Settlement Agreement or its terms.

5. Section 122(b)(3) of CERCLA, 42 U.S.C. § 9622(b)(3), authorizes EPA to retain and use funds received in settlement to address CERCLA response actions contemplated in a settlement agreement. EPA established the Lindsay Light II Special Account pursuant to Section 122(b)(3) of CERCLA which was then funded by the by the Tronox bankruptcy and Anadarko fraud settlements. See *In Re: Tronox Inc.*, Case No. 09-10156 (Bankr. SDNY) (ALG)

Bankruptcy Consent Decree and Environmental Settlement Agreement (2011) and *In Re: Tronox Inc.*, Adversary Proceeding No. 09-01198 (Bankr. SDNY) (ALG) Fraudulent Conveyance Settlement Agreement (2014). To encourage cooperation, compliance, investigation, and removal of Radioactive Material in excess of the Removal Action Level throughout the Site, this Settlement Agreement provides for EPA, in its discretion, to reimburse the Respondent from the Lindsay Light II Special Account for the costs incurred for the investigation, management, transportation and disposal of that Radioactive Material in compliance with this Settlement Agreement. The primary purpose of this reimbursement provision is to encourage investigation of 100% of the Site and clean-up of 100% of the Site to avoid the need for any future monitoring at the Site. As a result, not only will the threat of exposure to Radioactive Material decline, but in the future, EPA will incur fewer administrative and enforcement costs associated with monitoring for that material.

II. PARTIES BOUND

6. This Settlement Agreement is binding upon EPA and upon Respondent and its beneficiaries, heirs, successors, and assigns. Any change in ownership or corporate status of Respondent including, but not limited to, any transfer of assets or real or personal property shall not alter Respondent's responsibilities under this Settlement Agreement.

7. Respondent is jointly and severally liable for carrying out all activities required by this Settlement Agreement.

8. Each undersigned representative of Respondent certifies that he or she is fully authorized to enter into the terms and conditions of this Settlement Agreement and to execute and legally bind Respondent to this Settlement Agreement.

9. Respondent shall provide a copy of this Settlement Agreement to each contractor hired to perform the Work required by this Settlement Agreement and to each person representing Respondent with respect to the Site or the Work, and shall condition all contracts entered into hereunder upon performance of the Work in conformity with the terms of this Settlement Agreement. Respondent or its contractors shall provide written notice of the Settlement Agreement to all subcontractors hired to perform any portion of the Work required by this Settlement Agreement. Respondent shall nonetheless be responsible for ensuring that its contractors and subcontractors perform the Work in accordance with the terms of this Settlement Agreement.

III. DEFINITIONS

10. Unless otherwise expressly provided in this Settlement Agreement, terms used in this Settlement Agreement that are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Settlement Agreement or its attached exhibits, the following definitions shall apply:

“Action Memorandum-Enforcement” shall mean the EPA Action Memorandum relating to the Site signed on September 14, 2022, by the Director of EPA Region 5,

Superfund and Emergency Management Division or his/her delegate and all attachments thereto. The “Action Memorandum-Enforcement” is attached as Exhibit E (hereinafter, the “Action Memorandum”).

“CERCLA” shall mean the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601-9675.

“Day” or “day” shall mean a calendar day. In computing any period of time under this Settlement Agreement, where the last day would fall on a Saturday, Sunday, or federal or State holiday, the period shall run until the close of business of the next working day.

“Effective Date” shall mean the effective date of this Settlement Agreement as provided in Section XXX.

“Environmental Covenant” shall mean the environmental covenant approved by both EPA and the Illinois Environmental Protection Agency (IEPA) and consistent with the Illinois Uniform Environmental Covenants Act, 765 Illinois Compiled Statutes (ILCS) § 122 *et seq.* (UECA).

“EPA” shall mean the United States Environmental Protection Agency and its successor departments, agencies, or instrumentalities.

“EPA Hazardous Substance Superfund” shall mean the Hazardous Substance Superfund established by the Internal Revenue Code, 26 U.S.C. § 9507.

“Fill” shall mean man-made deposits of natural soils, rock products and/or waste materials (ASTM D653-14 Standard Terminology Relating to Soil, Rock, and Contained Fluids). Fill components may include a variety of identifiable materials including brick, cement, wood, wood ash, coal, coal ash, boiler ash, clunkers, other ash, asphalt, glass, plastic, metal, inert demolition debris, and roadside ditch materials. For the Lindsay Light Removal Sites in the Thorium Monitoring Area, “fill” and “urban fill” may be used interchangeably since all of the fill within the Thorium Monitoring Area is considered “urban.”

“General Construction or Demolition Debris” as set forth in Section 3.160 of the Illinois Environmental Protection Act, 415 ILCS 5/3.160, shall mean non-hazardous, uncontaminated materials resulting from the construction, remodeling, repair, and demolition of utilities, structures, and roads, limited to the following: bricks, concrete, and other masonry materials; soil; rock; wood, including non-hazardous painted, treated, and coated wood and wood products; wall coverings; plaster; drywall; plumbing fixtures; non-asbestos insulation; roofing shingles and other roof coverings; reclaimed or other asphalt pavement; glass; plastics that are not sealed in a manner that conceals waste; electrical wiring and components containing no hazardous substances; and corrugated cardboard, piping or metals incidental to any of those materials.

General construction or demolition debris does not include uncontaminated soil generated during construction, remodeling, repair, and demolition of utilities, structures, and

roads provided the uncontaminated soil is not commingled with any general construction or demolition debris or other waste.

To the extent allowed by federal law, uncontaminated concrete with protruding rebar shall be considered clean construction or demolition debris and shall not be considered "waste" if it is separated or processed and returned to the economic mainstream in the form of raw materials or products within 4 years of its generation, if it is not speculatively accumulated and, if used as a fill material, it is used in accordance with item (i) in subsection (b) of Section 3.160 of the Illinois Environmental Protection Act, 415 ILCS 5/3.160.

“Institutional Controls” or “ICs” shall mean Proprietary Controls, environmental covenants and easements, and state or local laws, regulations, ordinances, zoning restrictions, or other governmental controls or notices that: (a) limit land, water, or other resource use to minimize the potential for human exposure to Waste Material at or in connection with the Site; (b) limit land, water, or other resource use to implement, ensure non-interference with, or ensure the integrity of the removal action; and/or (c) provide information intended to modify or guide human behavior at or in connection with the Site.

“Interest” shall mean interest at the rate specified for interest on investments of the EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, compounded annually on October 1 of each year, in accordance with 42 U.S.C. § 9607(a). The applicable rate of interest shall be the rate in effect at the time the interest accrues. The rate of interest is subject to change on October 1 of each year. Rates are available online at <https://www.epa.gov/superfund/superfund-interest-rates>.

“Lindsay Light Removal Sites” shall collectively refer to the Lindsay Light I (161 E. Grand Ave.), Lindsay Light II (multiple addresses), and Lindsay Light III (22 W. Hubbard St.) CERCLA removal actions.

“Lindsay Light II Special Account” shall mean the special account within the EPA Hazardous Substance Superfund, established pursuant to Section 122(b)(3) of CERCLA, 42 U.S.C. § 9622(b)(3), and funded by the Tronox bankruptcy and Anadarko fraud settlements. See *In Re: Tronox Inc.*, Case No. 09-10156 (Bankr. SDNY) (ALG) Bankruptcy Consent Decree and Environmental Settlement Agreement (2011) and *In Re: Tronox Inc.*, Adversary Proceeding No. 09-01198 (Bankr. SDNY) (ALG) Fraudulent Conveyance Settlement Agreement (2014). It is the account established to be retained and used to conduct or finance response actions at or in connection with the Lindsay Light Removal Sites or to be transferred by EPA to the EPA Hazardous Substance Superfund.

“National Contingency Plan” or “NCP” shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.

“Native Materials” shall mean soil, sand, or rock that was present prior to the placement of fill. This refers to in-place (undisturbed) native materials.

“Off-Site Work” shall mean Work performed by Respondent pursuant to this Settlement Agreement within the rights-of-way located adjacent to the Site.

“On-Site Work” shall mean Work performed by Respondent pursuant to this Settlement Agreement at the Site.

“Paragraph” shall mean a portion of this Settlement Agreement identified by an Arabic numeral or an upper or lower case letter.

“Parties” shall mean EPA and Respondent.

“Post-Removal Site Control” shall mean actions necessary to ensure the effectiveness and integrity of the removal action to be performed pursuant to this Settlement Agreement consistent with Sections 300.415(*l*) and 300.5 of the NCP and “Policy on Management of Post-Removal Site Control” (OSWER Directive No. 9360.2-02, Dec. 3, 1990).

“Proprietary Controls” shall mean easements or covenants running with the land that: (a) limit land use and/or provide access rights and (b) are created pursuant to common law or statutory law by an instrument recorded by the owner in the appropriate land records office.

“Radioactive Material” shall mean any material that spontaneously emits ionizing radiation (e.g., X- or gamma rays, alpha or beta particles, neutrons). For the Lindsay Light Removal Sites this term is generally applicable to radioactive materials that exceed the Removal Action Level.

“RCRA” shall mean the Solid Waste Disposal Act, 42 U.S.C. §§ 6901-6992 (also known as the Resource Conservation and Recovery Act).

“Removal Action Level” for the Lindsay Light Removal Sites is 7.1 pCi/g for total radium (radium-228 and radium-226) in soil, fill, and other solid materials.

“Respondent” shall mean SC Grand Development LLC.

“Response Costs” shall mean all costs, including but not limited to, direct and indirect costs, that the United States has incurred or incurs on or after May 9, 2022 reviewing or developing deliverables, plans, reports and other items pursuant to this Settlement Agreement, verifying the Work, or otherwise implementing, overseeing, or enforcing this Settlement Agreement. Response costs shall also include, but not be limited to, payroll costs, contractor costs, travel costs, laboratory costs, the cost incurred pursuant to Section IX (Property Requirements) (including, but not limited to, costs and attorneys' fees and any monies paid to secure or enforce access or land, water, or other use restrictions, and/or to secure, implement, monitor, maintain, or enforce ICs, including, but not limited to, the amount of just compensation), Section XIII (Emergency Response and Notification of Releases), Paragraph 74 (Work Takeover), Section XV (Dispute Resolution), and all

litigation costs. Response Costs shall also include Agency for Toxic Substances and Disease Registry (ATSDR) costs regarding the Site.

“Section” shall mean a portion of this Settlement Agreement identified by a Roman numeral.

“Settlement Agreement” shall mean this Administrative Settlement Agreement and Order on Consent and all exhibits attached hereto (listed in Section XXIX (Severability/Integration/Exhibits)). In the event of conflict between this Settlement Agreement and any appendix, this Settlement Agreement shall control.

“Soil (earth)” shall mean sediments or other unconsolidated accumulations of solid particles produced by the physical and chemical disintegration of rocks, and which may or may not contain organic matter (ASTM D653-14 Standard Terminology Relating to Soil, Rock, and Contained Fluids).

“Site” shall mean Lindsay Light II OU 27, Superfund Site that includes the Parcel identified by parcel number and Cook County Parcel Identification Number (PIN) set forth below, bounded by commercial property and a condominium to the East, Grand Avenue to the South, North St. Clair Street to the West and commercial property to the North, and located at 218 East Grand Avenue in Chicago, Cook County, Illinois and depicted generally on the map attached as Exhibit A and described in the legal description attached as Exhibit B. The Site shall include both On-Site portions within the legal description of the property parcel number and Cook County Parcel Identification Number (PIN):17-10-209-022-0000, presently owned by Respondent and Off-Site portions of any adjacent surrounding rights-of-ways.

“State” shall mean the State of Illinois.

“Transfer” shall mean to sell, assign, convey, lease, mortgage, or grant a security interest in, or where used as a noun, a sale, assignment, conveyance, or other disposition of any interest by operation of law or otherwise.

“Tronox Bankruptcy Settlement Agreement” shall mean In Re: Tronox Inc., Case No. 09-10156 (Bankr. SDNY) (ALG) Consent Decree and Environmental Settlement Agreement, lodged November 23, 2010, as amended by the First Amendment to the Consent Decree as approved by the Bankruptcy Court on February 14, 2011, together with the U.S. District Court-approved Anadarko Settlement Agreement, In Re: Tronox Inc., Civil Action No. 14-05495 (SDNY Nov. 11, 2014).

“Uninvestigated Site Area” shall mean any portion of the Site depicted on the Map required by Paragraph 18.1 which is not radiologically surveyed in 18-inch lifts down to Native Material or any portion of the Site where any known material that exceeds the Removal Action Level will remain after completion of the Work.

“United States” shall mean the United States of America and each department, agency, and instrumentality of the United States, including EPA.

“Waste Material” shall mean (a) any solid waste under Section 1004(27) of RCRA, 42 U.S.C. § 6903(27) (including but not limited to urban fill, construction or demolition debris or material); (b) any hazardous substance under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14); (c) any pollutant or contaminant under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33); or (d) any hazardous material under Section 3.215 of the Illinois Environmental Protection Act, 415 ILCS 5/3.215 (2002).

“Work” shall mean all activities and obligations Respondent is required to perform under this Settlement Agreement except those required by Section XI (Record Retention).

“Work Plan” shall mean the EPA-approved work plan (as set forth in Exhibit D) including the schedule described in Section VIII (Work to be Performed), and any written modifications made to the Work Plan or schedules in accordance with this Settlement Agreement.

IV. FINDINGS OF FACT

11. Based on available information, including the Administrative Record in this matter, EPA hereby finds that:

a. The Site is located at 218 East Grand Avenue, formerly known as 535 North St. Clair Avenue, in Chicago, Illinois.

b. Beginning in approximately 1902, the Lindsay Light Company aka Lindsay Light & Chemical Co. (“Lindsay Light”), manufactured gas lights and thorium gas mantles for residential and commercial use at several locations in the Streeterville area of Chicago. Lindsay Light manufactured thorium-containing mantles by soaking a webbed fabric (or stocking) in a solution containing thorium nitrate and other metals. The mantles often included an asbestos-containing mantle tie that was also soaked in thorium nitrate as part of the manufacturing process. Lindsay Light’s production of thorium nitrate for its gas mantles resulted in a sandy waste known as mill tailings that was used as fill material in the Streeterville and vicinity areas. Other Lindsay Light thorium and asbestos process related wastes are also present in fill material. The Lindsay Light corporate records indicate that the company planned to move all of its Streeterville operations to the City of West Chicago by September 1936.

c. Historical news reports and Lindsay Light board of director’s minutes indicated, that in addition to thorium, Lindsay Light also processed or handled other radioactive rare earths and radioactive materials at its Streeterville facilities.

d. The Lindsay Light mill tailings contain thorium-232 which is a radionuclide that is a hazardous substance under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

e. EPA designated the initial thorium removal action at 316 East Illinois Street which was the former location of Lindsay Light’s ore processing plant as the Lindsay Light II Removal Site. Following that initial removal action during which approximately 24,000 cubic yards of material that exceeded the Removal Action Level were removed, EPA has

identified at least 24 other Lindsay Light II removal action operable units. Material that exceeded the Removal Action Level was also identified and removed from several other nearby Lindsay Light II OUs, including, but not limited to OU 00 (316 E. Illinois) and OU 3 (341 E. Ohio) as well as the Lindsay Light I Site and the Lindsay Light III Site.

f. To date, under EPA's oversight of Lindsay Light CERCLA removal actions, more than 55,000 cubic yards of material that exceeded the Removal Action Level associated with the Lindsay Light facility have been removed from the Streeterville area and the New East Side neighborhood combined.

g. For Lindsay Light Removal Sites, EPA requires the removal of radioactive material that exceeds the Removal Action Level.

h. Lantern mantle strings containing thorium and asbestos have also been found mixed with subsurface soil and fill in Streeterville.

i. Respondent will begin excavation at the Site in September 2022.

j. Construction laborers, utility workers and the public may be exposed to elevated levels of radiation if the Site is excavated without proper radiation monitoring, management, and disposal of materials in excess of the Removal Action Level.

k. If Respondent, in accordance with the EPA-approved Work Plan, radiologically surveys the Site in 18-inch lifts down to Native Material and excavates and disposes of identified materials that exceed the Removal Action Level, then Respondent may be eligible for reimbursement and/or disbursement of certain costs from the Lindsay Light II Special Account pursuant to Exhibit C to this Settlement Agreement.

V. CONCLUSIONS OF LAW AND DETERMINATIONS

12. Based on the Findings of Fact set forth above, and the administrative record, EPA has determined that:

a. The Site is a "facility" as defined by Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

b. The contamination found at the Site, as identified in the Findings of Fact above, includes a "hazardous substance" as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

c. Respondent is a "person" as defined by Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

d. Respondent is a responsible party under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), and is jointly and severally liable for performance of response action and for response costs incurred and to be incurred at the Site. Respondent is the "owner" and/or

“operator” of the Site, as defined by Section 101(20) of CERCLA, 42 U.S.C. § 9601(20), and within the meaning of Section 107(a)(1) of CERCLA, 42 U.S.C. § 9607(a)(1).

e. The conditions described in the Findings of Fact above constitute an actual or threatened “release” of a hazardous substance from the facility as defined by Section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

f. The conditions described in the Findings of Fact above may constitute an imminent and substantial endangerment to the public health or welfare or the environment because of an actual or threatened release of a hazardous substance from the facility within the meaning of Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

g. The conditions present at the facility may constitute a threat to public health, welfare, or the environment based upon the factors set forth in Section 300.415(b)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan, as amended ("NCP"), 40 C.F.R. § 300.415(b)(2). These factors include, but are not limited to, the following:

(1) Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances, pollutants or contaminants; this factor is present at the Site due to the existence of elevated levels of thorium found in subsurface soils that will be exposed by the removal of overburden and excavation.

(2) High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate; this factor is present at the facility due to the existence of elevated levels of thorium in subsurface soils that will be exposed by the removal of overburden and excavation.

(3) Other situations or factors that may pose threats to public health or welfare or the environment; this factor is present at the facility due to the existence of elevated levels of thorium in subsurface soils that may be exposed during construction activities that may expose construction laborers, utility workers and the public to excessive levels of thorium.

h. The removal action required by this Settlement Agreement, including Proprietary Controls, environmental covenants, and/or Institutional Controls, is necessary to protect the public health, welfare, or the environment and, if carried out in compliance with the terms of this Settlement, will be consistent with the NCP, as provided in Section 300.700(c)(3)(ii) of the NCP.

VI. SETTLEMENT AGREEMENT AND ORDER

13. Based upon the Findings of Fact, Conclusions of Law, and Determinations set forth above, and the administrative record for this Site, it is hereby Ordered and Agreed that Respondent shall comply with all provisions of this Settlement Agreement, including, but not limited to, all exhibits to this Settlement Agreement and all documents incorporated by reference into this Settlement Agreement.

VII. DESIGNATION OF CONTRACTOR, PROJECT COORDINATOR, AND ON-SCENE COORDINATOR

14. Respondent has selected a supervising contractor known as Ronald W. Schrack to perform the Work. Respondent has provided EPA with the qualifications of Ronald W. Schrack. Respondent has selected Precision Excavation and Demolition as the subcontractor(s) retained to perform some of the Work. Respondent has provided EPA with the qualifications of Precision Excavation and Demolition. If Respondent contracts with any other contractor(s) or subcontractor(s) to perform Work, Respondent must provide notice of the name(s) and qualification(s) of such person(s) at least 5 business days prior to commencement of such Work. EPA retains the right to disapprove of any or all of the contractors and/or subcontractors retained by Respondent. If EPA disapproves of a selected contractor or subcontractor, Respondent shall retain a different contractor or subcontractor and shall notify EPA of that contractor's or subcontractor's name and qualifications within 3 business days after EPA's disapproval. With respect to the selected contractor or any proposed contractor, Respondent shall demonstrate that the selected contractor or any proposed contractor demonstrates compliance with ASQ/ANSI E4:2014 "Quality management systems for environmental information and technology programs – Requirements with guidance for use" (American Society for Quality, February 2014), by submitting a copy of the proposed contractor's Quality Management Plan (QMP). The QMP should be prepared in accordance with "EPA Requirements for Quality Management Plans (QA/R-2)" (EPA/240/B-01/002, Reissued May 2006) or equivalent documentation as determined by EPA. The qualifications of the persons undertaking the Work for Respondent shall be subject to EPA's review for verification that such persons meet minimum technical background and experience requirements.

15. Respondent has designated [will designate], the following individual as Project Coordinator, Christopher Hume, Executive Vice President Cullen Construction Management, 564 West Randolph Street, Suite 200, Chicago, IL 60661 (312) 656-3404, chris@cullencm.com, who shall be responsible for administration of all actions by Respondent required by this Settlement Agreement. To the greatest extent possible, the Project Coordinator shall be present on Site or readily available during Site Work. EPA retains the right to disapprove of any future designated Project Coordinator who does not meet the requirements of Paragraph 14. If EPA disapproves of the designated Project Coordinator, Respondent shall retain a different Project Coordinator and shall notify EPA of that person's name, title, contact information, and qualifications within 4 business days following EPA's disapproval. Notice or communication relating to this Settlement Agreement from EPA to Respondent's Project Coordinator shall constitute notice or communication to Respondent.

16. EPA has designated Verneta Simon of the Emergency Response Branch, Region 5, as its On-Scene Coordinator ("OSC") and Gene Jablonowski, Health Physicist, of the Remedial Response Branch, as alternate project manager to the OSCs. EPA and Respondent shall have the right, subject to Paragraph 15, to change their respective designated OSC or Project Coordinator. Respondent shall notify EPA 3 days before such a change is made. The initial notification by Respondent may be made orally, but shall be promptly followed by a written notice. All deliverables, notices, notifications, proposals, reports, and requests specified in this Settlement Agreement must be in writing, unless otherwise specified, and be submitted by

email to Verneta Simon at simon.verneta@epa.gov and Eugene Jablonowski at Jablonowski.eugene@epa.gov. If any deliverable is too large for email delivery, Respondent shall contact Verneta Simon and Gene Jablonowski for instructions on uploading large documents to an EPA drive.

17. The OSCs shall be responsible for overseeing Respondent's implementation of this Settlement Agreement. The OSCs shall have the authority vested in an OSC by the NCP, including the authority to halt, conduct, or direct any Work required by this Settlement Agreement, or to direct any other removal action undertaken at the Site. Absence of the OSC from the Site shall not be cause for stoppage of work unless specifically directed by the OSC.

VIII. WORK TO BE PERFORMED

18. Respondent shall perform, at a minimum, the following removal activities:
- a. Implement the Work Plan set forth in Exhibit D for the radiological assessment of the Site.
 - b. Implement the site health and safety plan submitted before Work begins.
 - c. Develop and implement an air monitoring plan.
 - d. Develop and implement site security measures.
 - e. Conduct land surveying to the extent necessary to establish a grid system to locate all property boundaries, special features (pipes, storage tanks, etc.), and sample locations.
 - f. Conduct radiation surveillance and sampling in compliance with the EPA-approved Work Plan.
 - g. Collect soil samples from the borings and analyze for radionuclide content and RCRA characteristics. These results will then be used by the Respondent to correlate subsurface radiation levels and radionuclide content, and to determine the disposal facility.
 - h. Conduct off-site radiological surveying and sampling as necessary should contamination be discovered within the rights-of-ways surrounding the Site and, at a minimum implement 40 C.F.R. Part 192 if deemed necessary.
 - i. Based upon soil results, remove, transport and dispose of all characterized or identified hazardous substances, pollutants, wastes or contaminants at a RCRA/CERCLA approved disposal facility in accordance with the EPA off-site rule.
 - j. If other contaminants, hazardous substances, pollutants or wastes (including radionuclides other than thorium) are present in addition to material that exceeds the Removal Action Level, then EPA will establish a removal action level for each of those other

substances which shall not exceed the levels specified as contamination limits in other applicable State or federal regulations.

k. Material that exceeds the Removal Action Level shall be removed as follows:

(1) The concentration of radium-226 and radium-228 in land or excavations averaged over any area of 100 square meters, in any 15 centimeter depth, shall not exceed 7.1 pCi/g, based upon Section 332.150(b) of the Illinois Administrative Code; excavations with an area less than 100 square meters will have averaging applied to the area of that excavation;

(2) Outdoor gamma exposure or dose rates shall not statistically exceed background at a distance of 100 centimeters from the surface, based upon the Illinois Administrative Code, Section 332.150(b)(2). For purposes of the gamma survey, the background gamma radiation level may be defined as 10 +/- 5 μ R/hr (or μ rem/hr) as a range not to exceed;

(3) Every reasonable effort shall be made to maintain radiation exposures, and the amount of radioactive materials in unrestricted areas, to levels that are as low as is reasonably achievable (ALARA); and

(4) In addition to the above criteria, it will be necessary throughout the remediation project to release equipment from work sites and it may be necessary to assess whether materials or surfaces are suitable for unrestricted use. Requirements for such situations are found in the Illinois Administrative Code, Section 340, Appendix A(a), Decontamination Guidelines. Similar requirements also are found in the American National Standard ANSI/HPS N13.12-2013, Surface and Volume Radioactivity Standards for Clearance, Table 1 "Screening levels for clearance," May 6, 2013. For a given situation, the most restrictive value from either the Illinois Administrative Code or the ANSI/HPS standard shall apply.

l. If any portion of the Site is not radiologically surveyed in 18-inch lifts down to Native Material or if any known material that exceeds the Removal Action Level will remain after completion of the Work, then, using a scaled Site map with survey grade coordinates and elevations, Respondent shall depict all locations at the Site that were not radiologically surveyed in 18-inch lifts down to Native Material and/or where any known material that exceeds the Removal Action Level will remain after completion of the Work, and shall implement an Environmental Covenant. Respondent shall submit this Site map to EPA with the Final Report required by Paragraph 25.

m. If any portion of the Site is not radiologically surveyed in 18-inch lifts down to Native Material or if any known material that exceeds the Removal Action Level will remain after completion of the Work, then, Respondent shall record an Environmental Covenant. The Environmental Covenant shall:

- (1) run with the land;
- (2) require radiation monitoring whenever subsurface soils at the Uninvestigated Site Area are exposed, excavated or intruded upon; and
- (3) require proper management and disposal of any material that exceeds the Removal Action Level encountered in the Uninvestigated Site Area.

19. For any regulation or guidance referenced in the Settlement Agreement, the reference will be read to include any subsequent modification, amendment, or replacement of such regulation or guidance. Such modifications, amendments, or replacements apply to the Work only after Respondent receives notification from EPA of the modification, amendment, or replacement.

20. **Work Plan and Implementation**

a. By correspondence dated August 1, 2022, EPA approved a Work Plan titled Thorium Investigation Work Plan for 218 E. Grand Avenue, Chicago, Illinois and dated July 15, 2022 and attached as Exhibit D. The Work Plan does not currently include a schedule and Quality Assurance Project Plan (QAPP) because the OSC has determined that the circumstances involve non-complex removal work for performing the removal action generally described in Section VIII (Work To Be Performed) above. In the future, if EPA determines that a QAPP is necessary and requests such a plan, Respondent shall prepare the QAPP in accordance with “EPA requirements for Quality Assurance Project Plans (QA/-5)” (EPA/240/B-01/003, March 2001, reissued May 2006), “Guidance for Quality Assurance Project Plans (QA/G-5)” and “Uniform Federal Policy for Quality Assurance Project Plans,” Parts 1-3, EPA/505/B-04/900A-900C (March 2005).

b. Respondent shall implement the Work Plan as approved in writing by EPA. The Work Plan, the schedule, and any subsequent modifications shall be incorporated into and become fully enforceable under this Settlement Agreement.

c. Respondent shall not commence or perform any Work except in conformance with the terms of this Settlement Agreement.

d. Unless otherwise provided in this Settlement Agreement, any additional deliverables that require EPA approval under the Work Plan shall be reviewed and approved by EPA in accordance with this Paragraph.

21. **Submission of Deliverables**

a. **General Requirements for Deliverables**

(1) Except as otherwise provided in this Settlement Agreement, Respondent shall direct all submissions required by this Settlement Agreement to OSC Verneta Simon, P.E. at U.S. EPA (SE-5J), 77 W. Jackson Blvd., Chicago, Illinois 60604, 312-886-3601, simon.verneta@epa.gov. Respondent shall submit

all deliverables required by this Settlement Agreement, or any approved work plan to EPA in accordance with the schedule set forth in such plan.

(2) Respondent shall submit all deliverables in electronic form. Technical specifications for sampling and monitoring data and spatial data are addressed in Paragraph 21.b. All other deliverables shall be submitted to EPA in the form specified by the OSC. If any deliverable includes maps, drawings, or other exhibits that are larger than 8.5 x 11 inches, Respondent shall also provide EPA with paper copies of such exhibits. Respondent is encouraged to make hard copy submissions to EPA on recycled paper (which includes significant postconsumer waste paper content where possible) and using two-sided copies.

b. Technical Specifications for Deliverables

(1) Sampling and monitoring data that is in an electronic format should be submitted in a SCRIBE compatible format. SCRIBE is an EPA database (based on commercial, over the shelf Access software). Other delivery methods may be allowed if electronic direct submission presents a significant burden or as technology changes. If another delivery method is requested, it must be approved in advance by the OSC.

(2) Spatial data, including spatially-referenced data and geospatial data, should be submitted: (a) in the ESRI File Geodatabase format and (b) as unprojected geographic coordinates in decimal degree format using North American Datum 1983 (NAD83) or World Geodetic System 1984 (WGS84) as the datum. If applicable, submissions should include the collection method(s). Projected coordinates may optionally be included but must be documented. Spatial data should be accompanied by metadata, and such metadata should be compliant with the Federal Geographic Data Committee (FGDC) Content Standard for Digital Geospatial Metadata and its EPA profile, the EPA Geospatial Metadata Technical Specification. An add-on metadata editor for ESRI software, the EPA Metadata Editor (EME), complies with these FGDC and EPA metadata requirements and is available at <https://www.epa.gov/geospatial/epa-metadata-editor>.

(3) Each file must include an attribute name for each site unit or sub-unit submitted. Consult <https://www.epa.gov/geospatial/geospatial-policies-and-standards> for any further available guidance on attribute identification and naming.

(4) Spatial data submitted by Respondent does not, and is not intended to, define the boundaries of the Site.

22. **Health and Safety Plan.** Respondent is responsible for preparing a health and safety plan (HASP) in accordance with “OSWER Integrated Health and Safety Program Operating Practices for OSWER Field Activities,” Pub. 9285.0-OIC (Nov. 2002), available on the NSCEP database at <https://www.epa.gov/nscep>, and “EPA’s Emergency Responder Health

and Safety Manual,” OSWER Directive 9285.3-12 (July 2005 and updates), available at https://www.epaossc.org/_HealthSafetyManual/manual-index.htm. In addition, the plan shall comply with all currently applicable Occupational Safety and Health Administration (OSHA) regulations found at 29 C.F.R. Part 1910. If EPA determines that it is appropriate, the plan shall also include contingency planning. Respondent shall incorporate all changes to the plan recommended by EPA and shall implement the plan during the pendency of the removal action. Respondent shall submit the HASP to EPA at least two (2) weeks prior to commencement of Work.

23. Quality Assurance, Sampling, and Data Analysis

a. Respondent shall use quality assurance, quality control, and other technical activities and chain of custody procedures for all samples consistent with “EPA Requirements for Quality Assurance Project Plans (QA/R5)” EPA/240/B-01/003 (March 2001, reissued May 2006), “Guidance for Quality Assurance Project Plans (QA/G-5)” EPA/240/R-02/009 (December 2002), and “Uniform Federal Policy for Quality Assurance Project Plans,” Parts 1-3, EPA/505/B-04/900A-900C (March 2005).

b. Sampling and Analysis Plan. If Respondent encounters material that exceeds the Removal Action Level, Respondent shall submit a Sampling and Analysis Plan to EPA for review and approval within 3 days of encountering that material. This plan shall consist of a Field Sampling Plan (FSP) and a Quality Assurance Project Plan (QAPP) that is consistent with the Work Plan, the NCP, including, but not limited to, “Guidance for Quality Assurance Project Plans (QA/G-5)” EPA/240/R-02/009 (December 2002), “EPA Requirements for Quality Assurance Project Plans (QA/R-5)” EPA 240/B-01/003 (March 2001, reissued May 2006), and “Uniform Federal Policy for Quality Assurance Project Plans,” Parts 1-3, EPA/505/B-04/900A-900C (March 2005). Upon its approval by EPA, the Sampling and Analysis Plan shall be incorporated into and become enforceable under this Settlement Agreement.

c. Respondent shall ensure that EPA personnel and its authorized representatives are allowed access at reasonable times to all laboratories utilized by Respondent in implementing this Settlement Agreement. In addition, Respondent shall ensure that such laboratories shall analyze all samples submitted by EPA pursuant to the QAPP for quality assurance, quality control, and technical activities that will satisfy the stated performance criteria as specified in the QAPP and that sampling and field activities are conducted in accordance with the Agency’s “EPA QA Field Activities Procedure,” CIO 2105-P-02.1 (9/23/2014) available at <http://www.epa.gov/irmpoli8/epa-qa-field-activities-procedures>. Respondents shall ensure that the laboratories they utilize for the analysis of samples taken pursuant to this Settlement Agreement meet the competency requirements set forth in EPA’s “Policy to Assure Competency of Laboratories, Field Sampling, and Other Organizations Generating Environmental Measurement Data under Agency-Funded Acquisitions” available at <http://www.epa.gov/measurements/documents-about-measurement-competency-under-acquisition-agreements> and that the laboratories perform all analyses according to accepted EPA methods. Accepted EPA methods consist of, but are not limited to, methods that are documented in the EPA’s Contract Laboratory Program (<http://www.epa.gov/clp>), SW 846 “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods” (<https://www.epa.gov/hw-sw846>),

“Standard Methods for the Examination of Water and Wastewater” (<http://www.standardmethods.org/>), and 40 C.F.R. Part 136, “Air Toxics - Monitoring Methods” (<https://www.epa.gov/amtic/air-toxics-ambient-monitoring#methods>).

d. However, upon approval by EPA, Respondent may use other appropriate analytical method(s), as long as (i) quality assurance/quality control (QA/QC) criteria are contained in the method(s) and the method(s) are included in the QAPP, (ii) the analytical method(s) are at least as stringent as the methods listed above, and (iii) the method(s) have been approved for use by a nationally recognized organization responsible for verification and publication of analytical methods, e.g., EPA, ASTM, NIOSH, OSHA, etc. Respondent shall ensure that all laboratories they use for analysis of samples taken pursuant to this Settlement Agreement have a documented Quality System that complies with ASQ/ANSI E4:2014 “Quality management systems for environmental information and technology programs - Requirements with guidance for use” (American Society for Quality, February 2014), and “EPA Requirements for Quality Management Plans (QA/R-2)” EPA/240/B-01/002 (March 2001, reissued May 2006), or equivalent documentation as determined by EPA. EPA may consider Environmental Response Laboratory Network (ERLN) laboratories, laboratories accredited under the National Environmental Laboratory Accreditation Program (NELAP), or laboratories that meet International Standardization Organization (ISO 17025) standards or other nationally recognized programs as meeting the Quality System requirements. Respondent shall ensure that all field methodologies utilized in collecting samples for subsequent analysis pursuant to this Settlement Agreement are conducted in accordance with the procedures set forth in the QAPP approved by EPA.

e. Respondent shall notify EPA not less than 7 days in advance of any sample collection activity unless shorter notice is agreed to by EPA. Upon request, Respondent shall provide split or duplicate samples to EPA or its authorized representatives. In addition, EPA shall have the right to perform any radiation and hazardous materials measurements, surveying, monitoring, or sample collection that EPA deems necessary. Upon request, EPA shall provide to Respondent split or duplicate samples of any samples it takes as part of EPA’s oversight of Respondent’s implementation of the Work.

f. Upon receipt, Respondent shall submit to EPA the results of all sampling and/or tests or other data obtained or generated by or on behalf of Respondent with respect to the Site and/or the implementation of this Settlement Agreement.

g. Respondent waives any objections to any data gathered, generated, or evaluated by EPA, the State or Respondent in the performance or oversight of the Work that has been verified according to the QA/QC procedures required by the Settlement Agreement or any EPA-approved Work Plans or Sampling and Analysis Plans. If Respondent objects to any other data relating to the Work, Respondent shall submit to EPA a report that specifically identifies and explains its objections, describes the acceptable uses of the data, if any, and identifies any limitations to the use of the data. The report must be submitted to EPA within 15 days after the monthly progress report containing the data.

24. **Progress Reports.** Respondent shall submit a written progress report to EPA concerning actions undertaken pursuant to this Settlement Agreement every 30th day after the date of receipt of EPA's approval of the Work Plan until issuance of Notice of Completion of Work pursuant to Section XXVII, unless otherwise directed in writing by the OSC. These reports shall describe all significant developments during the preceding period, including the actions performed and any problems encountered, analytical data received during the reporting period, and the developments anticipated during the next reporting period, including a schedule of actions to be performed, anticipated problems, and planned resolutions of past or anticipated problems.

25. **Final Report.** Within 60 calendar days after completion of all Work required by this Settlement Agreement, other than continuing obligations listed in Section XXVII (Notice of Completion of Work), Respondent shall submit for EPA review and approval a final report summarizing the actions taken to comply with this Settlement Agreement. The final report shall conform, at a minimum, with the requirements set forth in Section 300.165 of the NCP entitled "OSC Reports" and with the guidance set forth in "Superfund Removal Procedures: Removal Response Reporting – POLREPS and OSC Reports" (OSWER Directive No. 9360.3-03, June 1, 1994). The final report shall include a good faith estimate of total costs or a statement of actual costs incurred in complying with the Settlement Agreement, a listing of quantities and types of materials removed off-Site or handled on-Site, a discussion of removal and disposal options considered for those materials, a listing of the ultimate destination(s) of those materials, a presentation of the analytical results of all sampling and analyses performed, and accompanying appendices containing all relevant documentation generated during the removal action (e.g., manifests, invoices, bills, contracts, and permits). The final report shall also include the following certification signed by a responsible corporate official of Respondent or Respondent's Project Coordinator: "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

26. **Off-Site Shipments and On-Site Disposal.**

a. Requirements for all Waste Material management including off-site disposal or on-site disposal:

(1) Respondent shall make a determination of whether or not a Waste Material is a CERCLA waste as defined in CERCLA Sections 101(14) and 101(33), (CERCLA Waste Material is any hazardous substance under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14) or any pollutant or contaminant under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33)), by either providing EPA

with written sampling analysis results or documentation in support of its defensible professional judgment.

- i. If any Waste Material is radioactively-contaminated, then Respondent shall dispose of the radioactive Waste Material only at a disposal facility licensed to accept radioactive Waste Material from the Site.
- ii. Prior to the shipment of any CERCLA Waste Material for off-site disposal, Respondent must obtain EPA's certification that the proposed facility receiving any CERCLA Waste Material is operating in compliance with the requirements of CERCLA Section 121(d)(3), 42 U.S.C. § 9621(d)(3), and 40 C.F.R. § 300.440.
- iii. Respondent may ship Investigation Derived Waste (IDW) from the Site to an off-Site facility only if Respondent complies with Section 121(d)(3) of CERCLA, 42 U.S.C. § 9621(d)(3), 40 C.F.R. § 300.440, EPA's "Guide to Management of Investigation Derived Waste," OSWER 9345.3-03FS (Jan. 1992), and any IDW-specific requirements contained in the Action Memorandum. Wastes shipped off-Site to a laboratory for characterization, and RCRA hazardous wastes that meet the requirements for an exemption from RCRA under 40 C.F.R. § 261.4(e) shipped off-Site for treatability studies, are not subject to 40 C.F.R. § 300.440.

(2) Respondent shall notify the OSCs in writing of the results of any CERCLA waste determination as soon as practicable but no later than 14 days before any Waste Material is actually shipped off-site.

(3) As soon as practicable after Respondent enters into a contract for disposal of any Waste Material, but no later than 14 days prior to the initial shipment of any Waste Material originating from the Site, Respondent shall provide written notice to the appropriate state environmental official and to the OSCs containing the following information: (a) the name and location of the facility to which any Waste Material is to be shipped; (b) the type and quantity of any Waste Material to be shipped; (c) the expected schedule for the shipment of any Waste Material and (d) the method of transportation.

(4) Respondent shall notify the state in which the planned receiving facility is located of major changes in the shipment plan, such as a decision to ship any Waste Material to another facility within the same state, or to a facility in another state as soon as practicable but no later than 14 days before any Waste Material is actually shipped off-site.

(5) Respondent shall notify the OSC no later than 5 business days before disposal takes place if any non-CERCLA Waste Material will be disposed of on-site.

(6) The notification requirements in Paragraph 26.a(3) or Paragraph 26.a(5) above shall not apply to any off-site shipments of non-radioactive Waste Material when the total volume of all such non-radioactive Waste Material off-site shipments or on-site disposal will not exceed 10 cubic yards.

IX. PROPERTY REQUIREMENTS

27. **Agreements Regarding Access and Non-Interference.** If access is needed to the Site to implement this Settlement Agreement, and is owned or controlled by the Respondent, Respondent shall, commencing on the Effective Date, (i) provide EPA, the State, and their representatives, including contractors, with access at all reasonable times to the Site, or such other property, to conduct any activity regarding the Settlement Agreement, including those listed in Paragraph 27.a (Access Requirements); and (ii) refrain from using such Site in any manner that EPA determines will pose an unacceptable risk to human health or to the environment due to exposure to Waste Material, or interfere with or adversely affect the implementation, integrity, or protectiveness of the removal action.

a. **Access Requirements.** The following is a list of activities for which access is required regarding the Site:

- (1) Monitoring the Work;
- (2) Verifying any data or information submitted to the United States;
- (3) Conducting investigations regarding contamination at or near the Site;
- (4) Obtaining or collecting radioactive and hazardous material samples and measurements;
- (5) Obtaining or collecting geo-spatial data on the locations of known or suspected radioactive or hazardous material contamination, and the boundaries and depths of any excavations and radiological survey units;
- (6) Assessing the need for, planning, implementing, or monitoring response actions;
- (7) Assessing implementation of quality assurance and quality control practices as defined in the approved quality assurance quality control plan as defined in the approved QAPP;
- (8) Implementing the Work pursuant to the conditions set forth in Paragraph 74 (Work Takeover);

(9) Inspecting and copying records, operating logs, contracts, or other documents maintained or generated by Respondent or its agents, consistent with Section X (Access to Information);

(10) Assessing Respondent's compliance with the Settlement Agreement;

(11) Determining whether the Site is being used in a manner that is prohibited or restricted, or that may need to be prohibited or restricted under the Settlement Agreement; and

(12) Implementing, monitoring, maintaining, reporting on, and enforcing any land use restrictions and any Institutional Controls regarding the Site.

b. Land Use Restrictions.

(1) Respondent is prohibited from activities which could result in exposure to contaminants in subsurface soils including any disturbance, exposure, intrusion, or excavation of the soils in any portion of the Site that has not been radiologically surveyed in 18-inch lifts down to Native Material or where any material that exceeds the Removal Action Level remain.

28. **Proprietary Controls.** Respondent shall, with respect to the Site, execute and record, in accordance with the procedures of this Paragraph 28, Proprietary Controls that: (i) grant a right of access to conduct any activity regarding the Settlement Agreement, including those activities listed in Paragraph 27.a (Access Requirements); and (ii) grant the right to enforce the land use restrictions set forth in Paragraph 27.b (Land Use Restrictions).

a. **Grantees.** The Proprietary Controls must be granted to one or more of the following persons and their representatives, as determined by EPA: the United States, the State, and other appropriate grantees. Proprietary Controls in the nature of a Uniform Environmental Covenants Act document granted to persons other than the United States must include a designation that: EPA (and/or the State as appropriate) is either an "agency" or a party expressly granted the right of access and the right to enforce the covenants allowing EPA and/or the State to maintain the right to enforce the Proprietary Controls without acquiring an interest in real property.

b. **Initial Title Evidence.** Respondent shall, within 45 days after the Effective Date:

(1) **Record Title Evidence.** Submit to EPA a title insurance commitment or other title evidence acceptable to EPA that: (i) names the proposed insured or the party in whose favor the title evidence runs, or the party who will hold the real estate interest, or if that party is uncertain, names EPA, the State, the Respondent, or "To Be Determined;" (ii) covers the Site that is to be encumbered; (iii) demonstrates that the person or entity that will execute and

record the Proprietary Controls is the owner of such Site; (iv) identifies all record matters that affect title to the Site, including all prior liens, claims, rights (such as easements), mortgages, and other encumbrances (collectively, "Prior Encumbrances"); and (v) includes complete, legible copies of such Prior Encumbrances; and

(2) Non-Record Title Evidence. Submit to EPA a report of the results of an investigation, including a physical inspection of the Site, which identifies non-record matters that could affect the title, such as unrecorded leases or encroachments.

c. Release or Subordination of Prior Liens, Claims, and Encumbrances

(1) Respondent shall secure the release, subordination, modification, or relocation of all Prior Encumbrances on the title to the Site revealed by the title evidence or otherwise known to Respondent, unless EPA waives this requirement as provided under Paragraphs 28.c(2)-(4).

(2) Respondent may, by the deadline under Paragraph 28.b (Initial Title Evidence), submit an initial request for waiver of the requirements of Paragraph 28.c(1) regarding one or more Prior Encumbrances, on the grounds that such Prior Encumbrances cannot defeat or adversely affect the rights to be granted by the Proprietary Controls and cannot interfere with the removal action or result in unacceptable exposure to Waste Material.

(3) Respondent may, within 90 days after the Effective Date, or if an initial waiver request has been filed, within 45 days after EPA's determination on the initial waiver request, submit a final request for a waiver of the requirements of Paragraph 28.c(1) regarding any particular Prior Encumbrance on the grounds that Respondents could not obtain the release, subordination, modification, or relocation of such Prior Encumbrance despite best efforts.

(4) The initial and final waiver requests must include supporting evidence including descriptions of and copies of the Prior Encumbrances and maps showing areas affected by the Prior Encumbrances. The final waiver request also must include evidence of efforts made to secure release, subordination, modification, or relocation of the Prior Encumbrances.

d. Update to Title Evidence and Recording of Proprietary Controls

(1) Consistent with Section 300.415(l) of the NCP and OSWER Directive No. 9360.2-02, upon completion of all Work required by Section VIII of this Settlement Agreement (Work To Be Performed), if any portion of the Site is not radiologically surveyed in 18-inch lifts down to Native Material or if any known material that exceeds the Removal Action Level will remain after completion of the Work then:

- i. In accordance with Paragraph 18.1, Respondent shall submit to EPA a scaled map of the Site with survey grade coordinates and elevations, showing the locations of any known material that exceeds the Removal Action Level or areas of the Site that have not been screened in 18-inch lifts down to Native Material; and
- ii. If Respondent, its contractors, representatives or agents disturb, expose or intrude upon the soils in the Uninvestigated Site Area, Respondent, its contractors, representatives and agents shall notify EPA both by telephone and in writing of plans to work in the Uninvestigated Site Area at least 72 hours prior to (but no more than 21 calendar days in advance of) commencing such activities. If material that exceeds the Removal Action Level is identified, Respondent shall provide a letter report to EPA explaining how the work was conducted in accordance with the Work Plan within 60 days of completion of the work.
- iii. Respondent shall submit all draft Proprietary Controls and draft instruments addressing Prior Encumbrances to EPA and IEPA for review and approval within 180 days after the Effective Date; or if an initial waiver request has been filed, within 135 days after EPA's determination on the initial waiver request; or if a final waiver request has been filed, within 90 days after EPA's determination on the final waiver request.
- iv. Upon EPA's approval of the proposed Proprietary Controls and instruments addressing Prior Encumbrances, Respondent shall, within 15 days, update the original title insurance commitment (or other evidence of title acceptable to EPA) under Paragraph 28.b (Initial Title Evidence). If the updated title examination indicates that no liens, claims, rights, or encumbrances have been recorded since the effective date of the original commitment (or other title evidence), Respondent shall secure the immediate recordation of the Proprietary Controls and instruments addressing Prior Encumbrances in the appropriate land records. Otherwise, Respondent shall secure the release, subordination, modification, or relocation under Paragraph 28.c(1), or the waiver under Paragraph 28.c(2)-(4), regarding any newly-discovered liens, claims, rights, and encumbrances, prior to recording

the Proprietary Controls and instruments addressing Prior Encumbrances.

- v. If Respondent submitted a title insurance commitment under Paragraph 28.b(1) (Record Title Evidence), then upon the recording of the Proprietary Controls and instruments addressing Prior Encumbrances, Respondent shall obtain a title insurance policy that: (i) is consistent with the original title insurance commitment; (ii) is for \$100,000 or other amount approved by EPA; (iii) is issued to EPA, Respondent, or other person approved by EPA; and (iv) is issued on a current American Land Title Association (ALTA) form or other form approved by EPA.
- vi. Respondent shall, within 30 days after recording the Proprietary Controls and instruments addressing Prior Encumbrances, or such other deadline approved by EPA, provide to EPA and to all grantees of the Proprietary Controls: (i) certified copies of the recorded Proprietary Controls and instruments addressing Prior Encumbrances showing the clerk's recording stamps; and (ii) the title insurance policy(ies) or other approved form of updated title evidence dated as of the date of recording of the Proprietary Controls and instruments.

(2) Respondent agrees that every subsequent deed or conveyance or Transfer of any property interest instrument will be subject to the recorded Proprietary Controls and instruments addressing Prior Encumbrances. The Respondent further agrees that the language in the recorded Proprietary Controls and instruments addressing Prior Encumbrances shall not be modified or removed from the recorded Proprietary Controls and instruments addressing Prior Encumbrances without pre-approval from EPA, as described in Paragraph 28.d(5).

(3) In the event of a conveyance or Transfer of the Site or any property interest in the Site, Respondent's obligations under this Settlement Agreement, including, but not limited to, its obligation to provide secure access and Institutional Controls, as well as to abide by such Institutional Controls pursuant to this Paragraph 28 (Proprietary Controls), shall continue to be met by Respondent unless otherwise agreed to by the EPA and IEPA in writing. In no event shall the conveyance or Transfer of a property interest release or otherwise affect the liability of Respondent to comply with all provisions of this Settlement Agreement unless otherwise agreed to among the Parties and IEPA hereto in writing.

(4) The intent of Respondent is to record Proprietary Controls and instruments addressing Prior Encumbrances that are applicable to each subsequent owner of the Site. The Proprietary Controls and Prior Encumbrances will apply to any portion of the Site that is not radiologically surveyed in 18-inch lifts down to Native Material or where any known material that exceeds the Removal Action Level will remain after completion of the Work. The Proprietary Controls shall provide the following:

- i. subject to Paragraph 28.d(5), a restriction that "runs with the land" regulating on the disturbance of, exposure of or intrusion upon any portion of the Uninvestigated Site Area;
- ii. the right to enforce said restrictions;
- iii. a right of access to the Site;
- iv. prior notice to EPA of disturbance, exposure, intrusion, or excavation of the soils in any portion of the Uninvestigated Site Area; and
- v. an agreement that when soils are disturbed, exposed, intruded or excavated in the Uninvestigated Site Area, those activities are conducted in accordance with the Work Plan.

(5) EPA and IEPA may terminate the restrictions in Paragraph 28, in whole or in part, in writing, as authorized by law. If requested by the EPA and IEPA, such writing will be executed by Respondent in recordable form and recorded with the Recorder of Deeds, Cook County, Illinois. Respondent may modify or terminate the above restrictions in whole or in part, in writing, with the prior written approval of EPA and IEPA. Respondent may seek to modify or terminate, in whole or in part, the restrictions by submitting to EPA and IEPA, for approval, a written application that identifies each such restriction to be terminated or modified, describes the terms of each proposed modification and includes proposed revision(s) to the Proprietary Controls and Institutional Control documents described in this Paragraph 28 (Proprietary Controls). Each application for termination or modification of any restriction shall include a demonstration that the requested termination or modification will not interfere with, impair or reduce protection of human health and the environment. If EPA, together with the IEPA, determines that an application satisfies the requirements of this Paragraph, including the criteria specified above, EPA will notify Respondent in writing. If EPA does not respond in writing to a request to change land use within 90 days of its receipt of that request, unless Respondent agrees to extend this period beyond 90 days, EPA and IEPA will be deemed to have denied the request. If a modification to or termination of restriction is approved,

Respondent shall record the revised Proprietary Control as approved by EPA and IEPA, with the Recorder of Deeds, Cook County, Illinois.

e. Respondent shall monitor, maintain, enforce, and annually report on all Proprietary Controls required under this Settlement Agreement.

29. **Best Efforts.** Where any action under this Settlement Agreement is to be performed in the Site owned by or in possession of someone other than Respondent, Respondent shall use its best efforts to obtain all necessary access agreements within 10 business days after the Effective Date, or as otherwise specified in writing by the OSC. Respondent shall immediately notify EPA if, after using their best efforts, Respondent is unable to obtain such agreements. As used in this Section, “best efforts” means the efforts that a reasonable person in the position of Respondent would use so as to achieve the goal in a timely manner, including the cost of employing professional assistance and the payment of reasonable sums of money to secure access and/or use restriction agreements, releases, subordinations, modifications or relocations of prior encumbrances that affect the title to the Site, as applicable. If Respondent is unable to accomplish what is required through “best efforts” in a timely manner, they shall notify EPA, and include a description of the steps taken to comply with the requirements. If EPA deems it appropriate, it may assist Respondent, or take independent action, in obtaining such access and/or use restrictions, releases, subordinations, modifications or relocations of prior encumbrances that affect the title to the Site, as applicable. All costs incurred by the United States in providing such assistance or taking such action, including the cost of attorney time and the amount of monetary consideration or just compensation paid, constitute Response Costs to be reimbursed under Section XIV (Payment of Response Costs).

30. Notwithstanding any provision of the Settlement Agreement, EPA and IEPA retain all of their access authorities and rights, as well as all of their rights to require land, water, or other resource use restrictions, Proprietary Controls and Institutional Controls, including enforcement authorities related thereto under CERCLA, RCRA, and any other applicable statute or regulations.

31. Respondent shall not Transfer the Site unless it has executed and recorded all Proprietary Controls and instruments addressing Prior Encumbrances regarding the Site in accordance with Paragraph 28 (Proprietary Controls).

32. In the event of any Transfer of the Site, unless EPA otherwise consents in writing, Respondent shall continue to comply with its obligations under this Settlement Agreement, including its obligation to secure access and ensure compliance with any land, water, or other resource use restrictions regarding the Site, and to implement, maintain, monitor, and report on Institutional Controls.

33. **Notice to Successors-in-Title**

a. Respondent shall, prior to entering into a contract to Transfer any portion of its Site that is located in an Uninvestigated Site Area, or 60 days prior to Transferring any portion of its Site located in an Uninvestigated Site Area, whichever is earlier:

(1) Notify the proposed transferee in writing that EPA has selected a removal action regarding the Uninvestigated Site Area, that potentially responsible parties have entered into an Administrative Settlement Agreement and Order on Consent requiring implementation of such removal action, (identifying the name, docket number, and the effective date of this Settlement Agreement);

(2) Notify the proposed transferee in writing and provide a copy of the EPA and IEPA-approved Environmental Covenant that Respondent has recorded as required by Paragraph 28.d(1)iv; and

(3) Notify EPA and IEPA in accordance with Section XXVIII (Notices and Submissions) in writing of the name and address of the proposed transferee, the legal description of the portion of the Site Respondent is Transferring and provide EPA and IEPA with a copy of the above notice that it provided to the proposed transferee.

X. ACCESS TO INFORMATION

34. Respondent shall provide to EPA, upon request, copies of all records, reports, documents, and other information (including records, reports, documents, and other information in electronic form) (hereinafter referred to as "Records") within Respondent's possession or control or that of their contractors or agents relating to activities at the Site or to the implementation of this Settlement Agreement, including, but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information regarding the Work. Respondent shall also make available to EPA, for purposes of investigation, information gathering, or testimony, its employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work.

35. Privileged and Protected Claims

a. Respondent may assert all or part of a Record requested by EPA is privileged or protected as provided under federal law, in lieu of providing the Record, provided Respondent complies with Paragraph 35.b, and except as provided in Paragraph 35.c.

b. If Respondent asserts such a privilege or protection, it shall provide EPA with the following information regarding such Record: its title; its date; the name, title, affiliation (e.g., company or firm), and address of the author, of each addressee, and of each recipient; a description of the Record's contents; and the privilege or protection asserted. If a claim of privilege or protection applies only to a portion of a Record, Respondent shall provide the Record to EPA in redacted form to mask the privileged or protected portion only. Respondent shall retain all Records that it claims to be privileged or protected until EPA has had a reasonable opportunity to dispute the privilege or protection claim and any such dispute has been resolved in Respondent's favor.

c. Respondent may make no claim of privilege or protection regarding:
(1) any data regarding the Site, including, but not limited to, all sampling, analytical, monitoring,

hydrogeologic, scientific, chemical, radiological, or engineering data, or the portion of any other Record that evidences conditions at or around the Site; or (2) the portion of any Record that Respondent is required to create or generate pursuant to this Settlement Agreement.

36. **Business Confidential Claims.** Respondent may assert that all or part of a Record provided to EPA under this Section or Section XI (Record Retention) is business confidential to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). Respondent shall segregate and clearly identify all Records or parts thereof submitted under this Settlement Agreement for which Respondent asserts business confidentiality claims. Records that Respondent claims to be confidential business information will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies Records when they are submitted to EPA, or if EPA has notified Respondent that the Records are not confidential under the standards of Section 104(e)(7) of CERCLA or 40 C.F.R. Part 2, Subpart B, the public may be given access to such Records without further notice to Respondent.

37. Notwithstanding any provision of this Settlement Agreement, EPA retains all of its information gathering and inspection authorities and rights, including enforcement actions related thereto, under CERCLA, RCRA, and any other applicable statutes or regulations.

XI. RECORD RETENTION

38. Until six (6) years after EPA provides Respondent with notice, pursuant to Section XXVII (Notice of Completion of Work), that all Work has been fully performed in accordance with this Settlement Agreement, Respondent shall preserve and retain all non-identical copies of Records (including Records in electronic form) now in their possession or control, or that come into their possession or control, that relate in any manner to their liability under CERCLA with regard to the Site, provided, however, that Respondent who is potentially liable as owner or operator of the Site must retain, in addition, all Records that relate to the liability of any other person under CERCLA with respect to the Site. Respondent must also retain, and instruct its contractors and agents to preserve, for the same period of time specified above all non-identical copies of the last draft or final version of any Records (including Records in electronic form) now in their possession or control or that come into their possession or control that relate in any manner to the performance of the Work, provided, however, that Respondent (and its contractors and agents) must retain, in addition, copies of all data generated during the performance of the Work and not contained in the aforementioned Records required to be retained. Each of the above record retention requirements shall apply regardless of any corporate retention policy to the contrary.

39. At the conclusion of the document retention period, Respondent shall notify EPA at least 90 days prior to the destruction of any such Records, and, upon request by EPA, and except as provided in Paragraph 35 (Privileged and Protected Claims), Respondent shall deliver any such Records to EPA.

40. Respondent certifies individually that, to the best of its knowledge and belief, after thorough inquiry, it has not altered, mutilated, discarded, destroyed, or otherwise disposed

of any Records (other than identical copies) relating to its potential liability regarding the Site since notification of potential liability by EPA or the State and that it has fully complied with any and all EPA and State requests for information regarding the Site pursuant to Sections 104(e) and 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e), and Section 3007 of RCRA, 42 U.S.C. § 6927, and state law.

XII. COMPLIANCE WITH OTHER LAWS

41. Nothing in this Settlement Agreement limits Respondent's obligations to comply with the requirements of all applicable state and federal laws and regulations, except as provided in Section 121(e) of CERCLA, 42 U.S.C. § 9621(e), and 40 C.F.R. §§ 300.400(e) and 300.415(j). In accordance with 40 C.F.R. § 300.415(j), all on-site actions required pursuant to this Settlement Agreement shall, to the extent practicable, as determined by EPA, considering the exigencies of the situation, attain applicable or relevant and appropriate requirements (ARARs) under federal environmental or state environmental or facility siting laws.

42. No local, state, or federal permit shall be required for any portion of the Work conducted entirely on-site (i.e., within the areal extent of contamination or in very close proximity to the contamination and necessary for implementation of the Work), including studies, if the action is selected and carried out in compliance with Section 121 of CERCLA, 42 U.S.C. § 9621. Where any portion of the Work that is not on-site requires a federal or state permit or approval, Respondent shall submit timely and complete applications and take all other actions necessary to obtain and to comply with all such permits or approvals. Respondent may seek relief under the provisions of Section XVII (Force Majeure) for any delay in the performance of the Work resulting from a failure to obtain, or a delay in obtaining, any permit or approval required for the Work, provided that they have submitted timely and complete applications and taken all other actions necessary to obtain all such permits or approvals. This Settlement Agreement is not, and shall not be construed to be, a permit issued pursuant to any federal or state statute or regulation.

XIII. EMERGENCY RESPONSE AND NOTIFICATION OF RELEASES

43. **Emergency Response.** If any event occurs during performance of the Work that causes or threatens to cause a release of Waste Material on, at, or from the Site that either constitutes an emergency situation or that may present an immediate threat to public health or welfare or the environment, Respondent shall immediately take all appropriate action to prevent, abate, or minimize such release or threat of release. Respondent shall take these actions in accordance with all applicable provisions of this Settlement Agreement, including, but not limited to, the Health and Safety Plan. Respondent shall also immediately notify the OSC or, in the event of his/her unavailability, the Regional Duty Officer, Emergency Response Branch Region 5 at (312) 353-2318 and the National Response Center at (800) 424-8802 of the incident or Site conditions. In the event that Respondent fails to take appropriate response action as required by this Paragraph, and EPA takes such action instead, Respondent shall reimburse EPA for all costs of such response action not inconsistent with the NCP pursuant to Section XIV (Payment of Response Costs).

44. **Release Reporting.** Upon the occurrence of any event during performance of the Work that Respondent is required to report pursuant to Section 103 of CERCLA, 42 U.S.C. § 9603, or Section 304 of the Emergency Planning and Community Right-to-know Act (EPCRA), 42 U.S.C. § 11004, Respondent shall immediately orally notify the OSC or, in the event of his/her unavailability, the Regional Duty Emergency Response Branch Region 5 at (312) 353-2318, and the National Response Center at (800) 424-8802. This reporting requirement is in addition to, and not in lieu of, reporting under Section 103(c) of CERCLA, 42 U.S.C. § 9603(c), and Section 304 of the Emergency Planning and Community Right-To-Know Act of 1986, 42 U.S.C. § 11004.

45. For any event covered under this Section, Respondent shall submit a written report to EPA within 7 days after the onset of such event, setting forth the action or event that occurred and the measures taken, and to be taken, to mitigate any release or threat of release or endangerment caused or threatened by the release and to prevent the reoccurrence of such a release or threat of release.

XIV. PAYMENT OF RESPONSE COSTS

46. **Payments for Response Costs.** Respondent shall pay to EPA all Response Costs not inconsistent with the NCP.

a. **Periodic Bills.** On a periodic basis, EPA will send Respondent a bill requiring payment that includes an Itemized Cost Summary, which includes direct and indirect costs incurred by EPA, its contractors, subcontractors, and the United States Department of Justice. Respondent shall make all payments within 30 days after Respondents' receipt of each bill requiring payment, except as otherwise provided in Paragraph 48 (Contesting Response Costs). Respondents shall make all payments at <https://www.pay.gov> in accordance with the following instructions: enter "sfo 1.1" in the search field to access EPA's Miscellaneous Payment Form – Cincinnati Finance Center. Complete the form including the site name Lindsay Light II Site OU 27, docket number, and Site/Spill ID Number 05YT. At the time of payment, Respondent shall send notice that payment has been made including these references to: Director, Superfund and Emergency Management Division, U.S. EPA Region 5, 77 West Jackson Blvd., S-6J, Chicago, Illinois, 60604-3590; to Cathleen Martwick, Associate Regional Counsel, Martwick.cathleen@epa.gov, Padmavati Bending, Associate Regional Counsel, bending.padmavati@epa.gov, and James Bridges, Associate Regional Counsel, bonar-bridges.james@epa.gov, 77 West Jackson Boulevard, C-14J, Chicago, Illinois, 60604-3590; and to the EPA Cincinnati Finance Office by email at cinwd_acctsreceivable@epa.gov.

b. **Deposit of Response Costs Payments.** The total amount to be paid by Respondent pursuant to Paragraph 46.a shall be deposited by EPA in the Lindsay Light II Special Account to be retained and used to conduct or finance response actions at or in connection with the Lindsay Light II Site, or to be transferred by EPA to the EPA Hazardous Substance Superfund.

47. **Interest.** In the event that any payment for Response Costs is not made within 30 days of Respondent's receipt of a bill, Respondent shall pay Interest on the unpaid balance. The

Interest on Response Costs shall begin to accrue on the date of the bill and shall continue to accrue through the date of Respondent's payment. Payments of Interest made under this Paragraph shall be in addition to such other remedies or sanctions available to the United States by virtue of Respondent's failure to make timely payments under this Section, including but not limited to, payment of stipulated penalties pursuant to Section XVIII (Stipulated Penalties).

48. **Contesting Response Costs.** Respondent may initiate the procedures of Section XVI (Dispute Resolution) regarding payment of any Response Costs billed under Paragraph 46 (Payments for Response Costs) if it determines that EPA has made a mathematical error or included a cost item that is not within the definition of Response Costs, or if it believes EPA incurred excess costs as a direct result of an EPA action that was inconsistent with a specific provision or provisions of the NCP. To initiate such dispute, Respondent shall submit a Notice of Dispute in writing to the OSC within 30 days after receipt of the bill. Any such Notice of Dispute shall specifically identify the contested Response Costs and the basis for objection. If Respondent submits a Notice of Dispute, Respondent shall within the 30-day period, also as a requirement for initiating the dispute, (a) pay all uncontested Response Costs to EPA in the manner described in Paragraph 46 (Payments for Response Costs), and (b) establish, in a duly chartered bank or trust company, an interest-bearing escrow account that is insured by the Federal Deposit Insurance Corporation (FDIC) and remit to that escrow account funds equivalent to the amount of the contested Future Response Costs. Respondent shall send to the OSC a copy of the transmittal letter and check paying the uncontested Response Costs, and a copy of the correspondence that establishes and funds the escrow account, including, but not limited to, information containing the identity of the bank and bank account under which the escrow account is established as well as a bank statement showing the initial balance of the escrow account. If EPA prevails in the dispute, within 5 days after the resolution of the dispute, Respondent shall pay the sums due (with accrued interest) to EPA in the manner described in Paragraph 46 (Payments for Response Costs). If Respondent prevails concerning any aspect of the contested costs, Respondent shall pay that portion of the costs (plus associated accrued interest) for which they did not prevail to EPA in the manner described in Paragraph 46 (Payments for Response Costs). Respondent shall be disbursed any balance of the escrow account. The dispute resolution procedures set forth in this Paragraph in conjunction with the procedures set forth in Section XVI (Dispute Resolution) shall be the exclusive mechanisms for resolving disputes regarding Respondent's obligation to reimburse EPA for its Response Costs.

XV. DISBURSEMENT OF SPECIAL ACCOUNT FUNDS, COST SUMMARY AND CERTIFICATION

49. Respondent shall conduct the Work described by this Settlement Agreement to identify and remove radioactive contamination and asbestos associated with the Lindsay Light Site pursuant to an EPA-approved Work Plan. The costs of Respondent's investigation, cleanup, and transportation and disposal may be eligible for reimbursement, at the discretion of EPA, from the Lindsay Light II Special Account partially funded pursuant to the Tronox Bankruptcy Settlement Agreement.

50. Respondent's eligibility for reimbursement is predicated upon compliance with this Settlement Agreement and the EPA-approved Work Plan and all attachments thereto. If

Respondent, in accordance with the EPA-approved Work Plan, radiologically surveys the Site in accordance with the EPA-approved Work Plan, excavates and disposes of identified material that exceeds the Removal Action Level, and complies with this Settlement Agreement, then Respondent may be eligible for reimbursement and/or disbursement of certain costs, consistent with Exhibit C, attached hereto.

51. If Respondent requests such reimbursement from the Lindsay Light II Special Account provided by the Tronox Bankruptcy Settlement agreement, Respondent must comply fully with the Disbursement of Lindsay Light II Special Account Funds terms and conditions included in Exhibit C.

XVI. DISPUTE RESOLUTION

52. Unless otherwise expressly provided for in this Settlement Agreement, the dispute resolution procedures of this Section shall be the exclusive mechanism for resolving disputes arising under this Settlement Agreement. The Parties shall attempt to resolve any disagreements concerning this Settlement Agreement expeditiously and informally.

53. **Informal Dispute Resolution.** If Respondent objects to any EPA action taken pursuant to this Settlement Agreement, including billings for Response Costs, it shall send EPA a written Notice of Dispute describing the objection(s) within 10 business days after such action. EPA and Respondent shall have 15 days from EPA's receipt of Respondent's Notice of Dispute to resolve the dispute through informal negotiations (the "Negotiation Period"). The Negotiation Period may be extended at the sole discretion of EPA. Any agreement reached by the Parties pursuant to this Section shall be in writing and shall, upon signature by the Parties, be incorporated into and become an enforceable part of this Settlement Agreement.

54. **Formal Dispute Resolution.** If the Parties are unable to reach an agreement within the Negotiation Period, Respondent shall, within 20 days after the end of the Negotiation Period, submit a statement of position to the OSC. EPA may, within 20 days thereafter, submit a statement of position. Thereafter, an EPA management official at the Director of Superfund and Emergency Management Division, Region 5 level or higher will issue a written decision on the dispute to Respondent. EPA's decision shall be incorporated into and become an enforceable part of this Settlement Agreement. Respondent shall fulfill the requirement that was the subject of the dispute in accordance with the agreement reached or with EPA's decision, whichever occurs.

55. Except as provided in Paragraph 48 (Contesting Response Costs) or as agreed by EPA, the invocation of formal dispute resolution procedures under this Section does not extend, postpone, or affect in any way any obligation of Respondent under this Settlement Agreement. Except as provided in Paragraph 64, stipulated penalties with respect to the disputed matter shall continue to accrue, but payment shall be stayed pending resolution of the dispute. Notwithstanding the stay of payment, stipulated penalties shall accrue from the first day of noncompliance with any applicable provision of this Settlement Agreement. In the event that Respondent does not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section XVIII (Stipulated Penalties).

XVII. FORCE MAJEURE

56. “Force Majeure” for purposes of this Settlement Agreement, is defined as any event arising from causes beyond the control of Respondent, of any entity controlled by Respondent, or of Respondent’s contractors that delays or prevents the performance of any obligation under this Settlement Agreement despite Respondent’s best efforts to fulfill the obligation. The requirement that Respondent exercise “best efforts to fulfill the obligation” includes using best efforts to anticipate any potential force majeure and best efforts to address the effects of any potential force majeure (a) as it is occurring and (b) following the potential force majeure such that the delay and any adverse effects of the delay are minimized to the greatest extent possible. “Force majeure” does not include financial inability to complete the Work or increased cost of performance.

57. If any event occurs or has occurred that may delay the performance of any obligation under this Settlement Agreement for which Respondent intends or may intend to assert a claim of force majeure, Respondent shall notify EPA’s OSC orally or, in his or her absence, the alternate EPA OSC, or, in the event both of EPA’s designated representatives are unavailable, the Director of the and Emergency Management Division, EPA Region 5, within 24 hours of when Respondent first knew that the event might cause a delay. Within 7 calendar days thereafter, Respondent shall provide in writing to EPA an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; Respondent’s rationale for attributing such delay to a force majeure; and a statement as to whether, in the opinion of Respondent, such event may cause or contribute to an endangerment to public health or welfare, or the environment. Respondent shall include with any notice all available documentation supporting its claim that the delay was attributable to a force majeure. Respondent shall be deemed to know of any circumstance of which Respondent, any entity controlled by Respondent, or Respondent’s contractors knew or should have known. Failure to comply with the above requirements regarding an event shall preclude Respondent from asserting any claim of force majeure regarding that event, provided, however, that if EPA, despite the late or incomplete notice, is able to assess to its satisfaction whether the event is a force majeure under Paragraph 56 and whether Respondent has exercised its best efforts under Paragraph 56, EPA may, in its unreviewable discretion, excuse in writing Respondent’s failure to submit timely or complete notices under this Paragraph.

58. If EPA agrees that the delay or anticipated delay is attributable to a force majeure, the time for performance of the obligations under this Settlement Agreement that are affected by the force majeure will be extended by EPA for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the force majeure shall not, of itself, extend the time for performance of any other obligation. If EPA does not agree that the delay or anticipated delay has been or will be caused by a force majeure, EPA will notify Respondent in writing of its decision. If EPA agrees that the delay is attributable to a force majeure, EPA will notify Respondent in writing of the length of the extension, if any, for performance of the obligations affected by the force majeure.

59. If Respondent elects to invoke the dispute resolution procedures set forth in Section XVI (Dispute Resolution), it shall do so no later than 15 days after receipt of EPA's notice. In any such proceeding, Respondent shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a force majeure, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that Respondent complied with the requirements of Paragraphs 56 and 57. If Respondent carries this burden, the delay at issue shall be deemed not to be a violation by Respondent of the affected obligation of this Settlement Agreement identified to EPA.

60. The failure by EPA to timely complete any obligation under the Settlement Agreement is not a violation of the Settlement Agreement, provided, however, that if such failure prevents Respondent from meeting one or more deadlines under the Settlement Agreement, Respondent may seek relief under this Section.

XVIII. STIPULATED PENALTIES

61. Respondent shall be liable to EPA for stipulated penalties in the amounts set forth in Paragraphs 62 and 63 for failure to comply with the obligations in this Settlement Agreement specified below, unless excused under Section XVII (Force Majeure). "Comply" as used in the previous sentence includes compliance by Respondent with all applicable requirements of this Settlement Agreement, within the deadlines established under this Settlement Agreement.

62. Stipulated Penalty Amounts – Compliance Milestones, Deliverables, Notice and Payments.

a. Compliance Milestones, Deliverables, Notice and Payments.

(1) Payment of Response Costs due 30 days after the Respondent's receipt of EPA's billing statement.

(2) Recording the Environmental Covenant and instruments addressing Prior Encumbrances in accordance with Paragraph 28.d.

(3) Timely submit to EPA a final revised map of the Uninvestigated Site Area in accordance with Paragraph 18.1.

(4) Notice required by Paragraphs 26.a(2), 26.a(3), 26.a(4) and 26.a(5) (Off-Site Shipments and On-Site Disposal).

(5) Provide a minimum of 72-hours advance notice prior to intrusive work in Uninvestigated Site Area as required in Paragraph 28.d(1)ii.

(6) Failure to comply with the recorded Proprietary Controls described in Paragraph 28.

b. Stipulated Penalty Amounts – Milestones, Deliverable and Payments. The following stipulated penalties shall accrue per violation per day for any noncompliance identified in Paragraphs 62.a(1), 62.a(2), or 62.a(3):

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$500.00	1st through 14th day
\$2,000.00	15th through 30th day
\$5,000.00	31st day and beyond

c. Stipulated Penalty Amounts - Compliance and Notice. The following stipulated penalties shall accrue per violation per day for any noncompliance identified in Paragraphs 33, 62.a(4), 62.a(5), or 62.a(6):

<u>1st Violation - Per Day Penalty</u>	<u>Period of Noncompliance</u>
\$500.00	1st day
\$1,000.00	2nd day
\$1,500.00	3rd through 5th day
\$3,500.00	6th through 15th day
\$7,500.00	16th day and beyond

<u>2nd Violation - Per Day Penalty</u>	<u>Period of Noncompliance</u>
\$1,500.00	1st day
\$2,500.00	2nd day
\$3,500.00	3rd through 5th day
\$5,000.00	6th through 15th day
\$10,000.00	16th day and beyond

<u>3rd Violation or more - Per Day Penalty</u>	<u>Period of Noncompliance</u>
\$2,500.00	1st day
\$4,000.00	2nd day
\$7,500.00	3rd through 5th day
\$12,500.00	6th through 15th day
\$20,000.00	16th day and beyond

d. Stipulated Penalty Amounts – Reports and Deliverables. The following stipulated penalties shall accrue per violation per day for failure to submit timely or adequate reports or other written documents not addressed in Paragraph 62:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$250.00	1st through 14th day
\$500.00	15th through 30th day
\$3,000.00	31st day and beyond

63. The following Stipulated Penalties shall accrue per violation per day for Respondent's failure to comply with any requirement in Paragraphs 18 through 45 above of this Settlement Agreement not specifically referenced in Paragraphs 61 through 62 above, including but not limited to, failure to perform any obligation required by any work plan or schedule approved under this Settlement Agreement, within the specified time schedules established or approved under this Settlement Agreement:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$250.00	1st through 14th day
\$500.00	15th through 30th day
\$3,000.00	31st day and beyond

64. All penalties shall begin to accrue on the day after the complete performance is due or the day a violation occurs and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity. Penalties shall continue to accrue during any dispute resolution period, and shall be paid within 15 days after the agreement or the receipt of EPA's decision or order. However, stipulated penalties shall not accrue: (a) with respect to a deficient submission under Paragraph 20 (Work Plan and Implementation), during the period, if any, beginning on the 31st day after EPA's receipt of such submission until the date that EPA notifies Respondent of any deficiency; and (b) with respect to a decision by the EPA Director of Superfund and Emergency Management Division, Region 5 level or higher, under Paragraph 54 (Formal Dispute Resolution), during the period, if any, beginning on the 21st day after the Negotiation Period begins until the date that the EPA Management Official issues a final decision regarding such dispute. Nothing in this Settlement Agreement shall prevent the simultaneous accrual of separate penalties for separate violations of this Settlement Agreement.

65. Following EPA's determination that Respondent has failed to comply with a requirement of this Settlement Agreement, EPA may give Respondent written notification of the failure and describe the noncompliance. EPA may send Respondent a written demand for payment of the penalties. However, penalties shall accrue as provided in the preceding Paragraph regardless of whether EPA has notified Respondent of a violation.

66. All penalties accruing under this Section shall be due and payable to EPA within 30 days after Respondent's receipt from EPA of a demand for payment of the penalties, unless Respondent invokes the Dispute Resolution procedures under Section XVI (Dispute Resolution) within the 30-day period. Respondent shall make all payments at <https://www.pay.gov> using the link for "EPA Miscellaneous Payments Cincinnati Finance Center," including references to the Site Name, docket number, Site/Spill ID Number, and the purpose of the payment. Respondent shall send to EPA, in accordance with Paragraph 46, a notice of this payment including these references.

67. If Respondent fails to pay stipulated penalties when due, Respondent shall pay Interest on the unpaid stipulated penalties as follows: (a) if Respondent has timely invoked dispute resolution such that the obligation to pay stipulated penalties has been stayed pending the outcome of dispute resolution, Interest shall accrue from the date stipulated penalties are due pursuant to Paragraph 64 until the date of payment; and (b) if Respondent fails to timely invoke

dispute resolution, Interest shall accrue from the date of demand under Paragraph 66 until the date of payment. If Respondent fails to pay stipulated penalties and Interest when due, the United States may institute proceedings to collect the penalties and Interest.

68. The payment of penalties and Interest, if any, shall not alter in any way Respondent's obligation to complete the performance of the Work required under this Settlement Agreement.

69. Nothing in this Settlement Agreement shall be construed as prohibiting, altering, or in any way limiting the ability of EPA to seek any other remedies or sanctions available by virtue of Respondent's violation of this Settlement Agreement or of the statutes and regulations upon which it is based, including, but not limited to, penalties pursuant to Sections 106(b) and 122(l) of CERCLA, 42 U.S.C. §§ 9606(b) and 9622(l), and punitive damages pursuant to Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3), provided however, that EPA shall not seek civil penalties pursuant to Section 106(b) or Section 122(l) of CERCLA or punitive damages pursuant to Section 107(c)(3) of CERCLA for any violation for which a stipulated penalty is provided in this Settlement Agreement, except in the case of a willful violation of this Settlement Agreement or in the event that EPA assumes performance of a portion or all of the Work pursuant to Paragraph 74 (Work Takeover).

70. Notwithstanding any other provision of this Section, EPA may, in its unreviewable discretion, waive any portion of stipulated penalties that have accrued pursuant to this Settlement Agreement.

XIX. COVENANTS BY EPA

71. Except as provided in Section XX (Reservations of Rights by EPA), EPA covenants not to sue or to take administrative action against Respondent pursuant to Sections 106 and 107(a) of CERCLA, 42 U.S.C. §§ 9606 and 9607(a), for the Work and Response Costs. These covenants shall take effect upon the Effective Date. These covenants are conditioned upon the complete and satisfactory performance by Respondent of its obligations under this Settlement Agreement. These covenants extend only to Respondent and do not extend to any other person.

XX. RESERVATIONS OF RIGHTS BY EPA

72. Except as specifically provided in this Settlement Agreement, nothing in this Settlement Agreement shall limit the power and authority of EPA or the United States to take, direct, or order all actions necessary to protect public health, welfare, or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants, or contaminants, or hazardous or solid waste on, at, or from the Site. Further, nothing in this Settlement Agreement shall prevent EPA from seeking legal or equitable relief to enforce the terms of this Settlement Agreement, from taking other legal or equitable action as it deems appropriate and necessary, or from requiring Respondent in the future to perform additional activities pursuant to CERCLA or any other applicable law.

73. The covenants set forth in Section XIX (Covenants by EPA) do not pertain to any matters other than those expressly identified therein. EPA reserves, and this Settlement

Agreement is without prejudice to, all rights against Respondent with respect to all other matters, including, but not limited to:

- a. liability for failure by Respondent to meet a requirement of this Settlement Agreement;
- b. liability for costs not included within the definition of Response Costs;
- c. liability for performance of response action other than the Work;
- d. criminal liability;
- e. liability for violations of federal or state law that occur during or after implementation of the Work;
- f. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments; and
- g. liability arising from the past, present, or future disposal, release or threat of release of Waste Materials outside of the Site.

74. Work Takeover

a. In the event EPA determines that Respondent: (1) has ceased implementation of any portion of the Work; (2) is seriously or repeatedly deficient or late in its performance of the Work; or (3) is implementing the Work in a manner that may cause an endangerment to human health or the environment, EPA may issue a written notice (“Work Takeover Notice”) to Respondent. Any Work Takeover Notice issued by EPA (which writing may be electronic) will specify the grounds upon which such notice was issued and will provide Respondent a period of 3 days within which to remedy the circumstances giving rise to EPA’s issuance of such notice.

b. If, after expiration of the 3-day notice period specified in Paragraph 74.a, Respondent has not remedied to EPA’s satisfaction the circumstances giving rise to EPA’s issuance of the relevant Work Takeover Notice, EPA may at any time thereafter assume the performance of all or any portion(s) of the Work as EPA deems necessary (“Work Takeover”). EPA will notify Respondent in writing (which writing may be electronic) if EPA determines that implementation of a Work Takeover is warranted under this Paragraph 74.b.

c. Respondent may invoke the procedures set forth in Paragraph 54 (Formal Dispute Resolution) to dispute EPA’s implementation of a Work Takeover under Paragraph 74.b. However, notwithstanding Respondent’s invocation of such dispute resolution procedures, and during the pendency of any such dispute, EPA may in its sole discretion commence and continue a Work Takeover under Paragraph 74.b until the earlier of (1) the date that Respondent remedies, to EPA’s satisfaction, the circumstances giving rise to EPA’s issuance of the relevant Work Takeover Notice, or (2) the date that a written decision terminating such Work Takeover is rendered in accordance with Paragraph 54 (Formal Dispute Resolution).

d. Notwithstanding any other provision of this Settlement Agreement, EPA retains all authority and reserves all rights to take any and all response actions authorized by law.

XXI. COVENANTS BY RESPONDENT

75. Respondent covenants not to sue and agrees not to assert any claims or causes of action against the United States, or its contractors or employees, with respect to the Work, Response Costs, and this Settlement Agreement, including, but not limited to:

a. any direct or indirect claim for reimbursement from the EPA Hazardous Substance Superfund through Sections 106(b)(2), 107, 111, 112, or 113 of CERCLA, 42 U.S.C. §§ 9606(b)(2), 9607, 9611, 9612, or 9613, or any other provision of law;

b. any claims under Sections 107 and 113 of CERCLA, Section 7002(a) of RCRA, 42 U.S.C. § 6972(a), or state law regarding the Work, Response Costs, and this Settlement Agreement;

c. any claim arising out of response actions at or in connection with the Site, including any claim under the United States Constitution, the Illinois Constitution, the Tucker Act, 28 U.S.C. § 1491, the Equal Access to Justice Act, 28 U.S.C. § 2412, or at common law.

76. Except as provided in Paragraph 79 (Waiver of Claims by Respondent), these covenants not to sue shall not apply in the event the United States brings a cause of action or issues an order pursuant to any of the reservations set forth in Section XX (Reservations of Rights by EPA), other than in Paragraph 73.a (liability for failure to meet a requirement of the Settlement Agreement), 73.d (criminal liability), or 73.e (violations of federal/state law during or after implementation of the Work), but only to the extent that Respondent's claims arise from the same response action, response costs, or damages that the United States is seeking pursuant to the applicable reservation.

77. Nothing in this Settlement Agreement shall be deemed to constitute approval or preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).

78. Respondent reserves, and this Settlement Agreement is without prejudice to, claims against the United States, subject to the provisions of Chapter 171 of Title 28 of the United States Code, and brought pursuant to any statute other than CERCLA or RCRA and for which the waiver of sovereign immunity is found in a statute other than CERCLA or RCRA, for money damages for injury or loss of property or personal injury or death caused by the negligent or wrongful act or omission of any employee of the United States, as that term is defined in 28 U.S.C. § 2671, while acting within the scope of his or her office or employment under circumstances where the United States, if a private person, would be liable to the claimant in accordance with the law of the place where the act or omission occurred. However, the foregoing shall not include any claim based on EPA's selection of response actions, or the oversight or approval of Respondent's deliverables or activities.

79. **Waiver of Claims by Respondent**

a. Respondent agrees not to assert any claims and to waive all claims or causes of action (including but not limited to claims or causes of action under Sections 107(a) and 113 of CERCLA) that they may have:

(1) **De Micromis Waiver.** For all matters relating to the Site against any person where the person's liability to Respondent with respect to the Site is based solely on having arranged for disposal or treatment, or for transport for disposal or treatment, of hazardous substances at the Site, or having accepted for transport for disposal or treatment of hazardous substances at the Site, if all or part of the disposal, treatment, or transport occurred before April 1, 2001, and the total amount of material containing hazardous substances contributed by such person to the Site was less than 110 gallons of liquid materials or 200 pounds of solid materials.

b. **Exceptions to Waiver**

(1) The waiver under this Paragraph 79 shall not apply with respect to any defense, claim, or cause of action that Respondent may have against any person otherwise covered by such waiver if such person asserts a claim or cause of action relating to the Site against Respondent.

XXII. OTHER CLAIMS

80. By issuance of this Settlement Agreement, the United States and EPA assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Respondent. The United States or EPA shall not be deemed a party to any contract entered into by Respondent or its directors, officers, employees, agents, successors, representatives, assigns, contractors, or consultants in carrying out actions pursuant to this Settlement Agreement.

81. Except as expressly provided in Paragraphs 79 (Waiver of Claims by Respondent) and Section XIX (Covenants by EPA), nothing in this Settlement Agreement constitutes a satisfaction of or release from any claim or cause of action against Respondent or any person not a party to this Settlement Agreement, for any liability such person may have under CERCLA, other statutes, or common law, including but not limited to any claims of the United States for costs, damages, and interest under Sections 106 and 107 of CERCLA, 42 U.S.C. §§ 9606 and 9607.

82. No action or decision by EPA pursuant to this Settlement Agreement shall give rise to any right to judicial review, except as set forth in Section 113(h) of CERCLA, 42 U.S.C. § 9613(h).

XXIII. EFFECT OF SETTLEMENT/CONTRIBUTION

83. Except as provided in Paragraphs 79 (Waiver of Claims by Respondent), nothing in this Settlement Agreement shall be construed to create any rights in, or grant any cause of action to, any person not a Party to this Settlement Agreement. Except as provided in Section XXI (Covenants by Respondent), each of the Parties expressly reserves any and all rights (including, but not limited to, pursuant to Section 113 of CERCLA, 42 U.S.C. § 9613), defenses, claims, demands, and causes of action which each Party may have with respect to any matter, transaction, or occurrence relating in any way to the Site against any person not a Party hereto. Nothing in this Settlement Agreement diminishes the right of the United States, pursuant to Section 113(f)(2) and (3) of CERCLA, 42 U.S.C. § 9613(f)(2)-(3), to pursue any such persons to obtain additional response costs or response action and to enter into settlements that give rise to contribution protection pursuant to Section 113(f)(2).

84. The Parties agree that this Settlement Agreement constitutes an administrative settlement pursuant to which Respondent has, as of the Effective Date, resolved liability to the United States within the meaning of Sections 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C. §§ 9613(f)(2) and 9622(h)(4), and is entitled, as of the Effective Date, to protection from contribution actions or claims as provided by Sections 113(f)(2) and 122(h)(4) of CERCLA, or as may be otherwise provided by law, for the “matters addressed” in this Settlement Agreement. The “matters addressed” in this Settlement Agreement are the Work and Response Costs.

85. The Parties further agree that this Settlement Agreement constitutes an administrative settlement pursuant to which Respondent has, as of the Effective Date, resolved liability to the United States within the meaning of Section 113(f)(3)(B) of CERCLA, 42 U.S.C. § 9613(f)(3)(B).

86. Respondent shall, with respect to any suit or claim brought by it for matters related to this Settlement Agreement, notify EPA in writing no later than 60 days prior to the initiation of such suit or claim. Respondent also shall, with respect to any suit or claim brought against it for matters related to this Settlement Agreement, notify EPA in writing within 10 days after service of the complaint or claim upon it. In addition, Respondent shall notify EPA within 10 days after service or receipt of any Motion for Summary Judgment and within 10 days after receipt of any order from a court setting a case for trial, for matters related to this Settlement Agreement.

87. In any subsequent administrative or judicial proceeding initiated by EPA, or by the United States on behalf of EPA, for injunctive relief, recovery of response costs, or other relief relating to the Site, Respondent shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim-splitting, or other defenses based upon any contention that the claims raised in the subsequent proceeding were or should have been brought in the instant case; provided, however, that nothing in this Paragraph affects the enforceability of the covenant by EPA set forth in Section XIX (Covenants by EPA).

88. Effective upon signature of this Settlement Agreement by Respondent, Respondent agrees that the time period commencing on the date of its signature and ending on the date EPA receives from Respondent the payment(s) required by Paragraph 46 (Payments for Response Costs) and, if any, Section XVIII (Stipulated Penalties) shall not be included in computing the running of any statute of limitations potentially applicable to any action brought by the United States related to the “matters addressed” as defined in Paragraph 84 and that, in any action brought by the United States related to the “matters addressed,” Respondent will not assert, and may not maintain, any defense or claim based upon principles of statute of limitations, waiver, laches, estoppel, or other defense based on the passage of time during such period. If EPA gives notice to Respondent that it will not make this Settlement Agreement effective, the statute of limitations shall begin to run again commencing 90 days after the date such notice is sent by EPA.

XXIV. INDEMNIFICATION

89. The United States does not assume any liability by entering into this Settlement Agreement or by virtue of any designation of Respondent as EPA’s authorized representatives under Section 104(e) of CERCLA, 42 U.S.C. § 9604(e), and 40 C.F.R. 300.400(d)(3). Respondent shall indemnify, save, and hold harmless the United States, its officials, agents, employees, contractors, subcontractors, and representatives for or from any and all claims or causes of action arising from, or on account of, negligent or other wrongful acts or omissions of Respondent, its officers, directors, employees, agents, contractors, or subcontractors, and any persons acting on Respondent’s behalf or under their control, in carrying out activities pursuant to this Settlement Agreement. Further, Respondent agrees to pay the United States all costs it incurs, including but not limited to attorneys’ fees and other expenses of litigation and settlement arising from, or on account of, claims made against the United States based on negligent or other wrongful acts or omissions of Respondent, its officers, directors, employees, agents, contractors, subcontractors, and any persons acting on their behalf or under their control, in carrying out activities pursuant to this Settlement Agreement. The United States shall not be held out as a party to any contract entered into by or on behalf of Respondent in carrying out activities pursuant to this Settlement Agreement. Neither Respondent nor any such contractor shall be considered an agent of the United States.

90. The United States shall give Respondent notice of any claim for which the United States plans to seek indemnification pursuant to this Section and shall consult with Respondent prior to settling such claim.

91. Respondent covenants not to sue and agrees not to assert any claims or causes of action against the United States for damages or reimbursement or for set-off of any payments made or to be made to the United States, arising from or on account of any contract, agreement, or arrangement between Respondent and any person for performance of Work on or relating to the Site, including, but not limited to, claims on account of construction delays. In addition, Respondent shall indemnify and hold harmless the United States with respect to any and all claims for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between Respondent and any person for performance of Work on or relating to the Site, including, but not limited to, claims on account of construction delays.

XXV. MODIFICATION

92. The OSC may modify any plan or schedule in writing or by oral direction. Any oral modification will be memorialized in writing by EPA promptly, but shall have as its effective date the date of the OSC's oral direction. Any other requirements of this Settlement Agreement may be modified in writing by mutual agreement of the parties.

93. If Respondent seeks permission to deviate from any approved work plan or schedule, Respondent's Project Coordinator shall submit a written request to EPA for approval outlining the proposed modification and its basis. Respondent may not proceed with the requested deviation until receiving oral or written approval from the OSC pursuant to Paragraph 92.

94. No informal advice, guidance, suggestion, or comment by the OSC or other EPA representatives regarding any deliverable submitted by Respondent shall relieve Respondent of its obligation to obtain any formal approval required by this Settlement Agreement, or to comply with all requirements of this Settlement Agreement, unless it is formally modified.

XXVI. ADDITIONAL REMOVAL ACTION

95. If EPA determines that additional removal actions not included in the Work Plan or other approved plan(s) are necessary to protect public health, welfare, or the environment, EPA will notify Respondent of that determination. Unless otherwise stated by EPA, within 30 days after receipt of notice from EPA that additional removal actions are necessary to protect public health, welfare, or the environment, Respondent shall submit for approval by EPA a work plan for the additional removal actions. The plan shall conform to the applicable requirements of Section VIII (Work to Be Performed) of this Settlement. Upon EPA's approval of the Work Plan, Respondent shall implement the plan for additional removal actions in accordance with the provisions and schedule contained therein. This Section does not alter or diminish the OSC's authority to make oral modifications to any plan or schedule pursuant to XXV (Modification).

XXVII. NOTICE OF COMPLETION OF WORK

96. When EPA determines, after EPA's review of the Final Report, that all Work has been fully performed in accordance with this Settlement Agreement, with the exception of any continuing obligations required by this Settlement Agreement, including Post-Removal Site Controls, land, water, or other resource use restrictions, payment of Response Costs, record retention, and Institutional Controls, EPA will provide written notice to Respondent. If EPA determines that such Work has not been completed in accordance with this Settlement Agreement, EPA will notify Respondent, provide a list of the deficiencies, and require that Respondent modify the Work Plan if appropriate in order to correct such deficiencies. Respondent shall implement the modified and approved Work Plan and shall submit a modified Final Report in accordance with the EPA notice. Failure by Respondent to implement the approved modified Work Plan shall be a violation of this Settlement Agreement.

XXVIII. NOTICES AND SUBMISSIONS

97. Whenever under the terms of this Settlement Agreement, except as set forth in Paragraph 21.a (General Requirements for Deliverables), notice is required to be given or a document is required to be sent by one Party to another, it shall be directed to the individuals at the addresses specified below, with electronic copies to the respective email addresses, unless those individuals or their successors give notice of a change to the other Parties in writing. Written notice as specified herein shall constitute complete satisfaction of any written notice requirement of this Agreement with respect to EPA and Respondent.

As to U.S. EPA:

Cathleen R. Martwick
Associate Regional Counsel
U.S. EPA (C-14J)
77 W. Jackson Blvd.
Chicago, Illinois 60604
Martwick.cathleen@epa.gov

Padmavati Bending
Associate Regional Counsel
U.S. EPA (C-14J)
77 W. Jackson Blvd.
Chicago, Illinois 60604
Bending.padmavati@epa.gov

James Bridges
Associate Regional Counsel
U.S. EPA (C-14J)
77 W. Jackson Blvd.
Chicago, Illinois 60604
Bridges-bonar.james@epa.gov

Verneta Simon, P.E.
On-Scene Coordinator
U.S. EPA (SE-5J)
77 W. Jackson Blvd.
Chicago, Illinois 60604
Simon.verneta@epa.gov

Eugene Jablonowski
Health Physicist
U.S. EPA (SRF-5J)
77 W. Jackson Blvd.
Chicago, Illinois 60604
Jablonowski.eugene@epa.gov

Vanessa Mbogo

Comptroller's Office
U.S. EPA (MF-10J)
77 W. Jackson Blvd.
Chicago, Illinois 60604
Mbogo.vanessa@epa.gov

As to Respondent:

SC Grand Development LLC
c/o Mr. Adam Friedberg
2211 North Elston
Suite 306
Chicago, Illinois 60607
adam@mavrekdevelopment.com

XXIX. SEVERABILITY/INTEGRATION/EXHIBITS

98. This Settlement Agreement and its exhibits constitute the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Settlement Agreement. The parties acknowledge that there are no representations, agreements, or understandings relating to the settlement other than those expressly contained in this Settlement Agreement. The following exhibits are attached to and incorporated into this Settlement Agreement:

- a. "Exhibit A" is the Site Map.
- b. "Exhibit B" is the Site Legal Description.
- c. "Exhibit C" is the Disbursement of Special Account Funds/Cost Summary and Certification.
- d. "Exhibit D" is the EPA-Approved Work Plan.
- e. "Exhibit E" is the Action Memorandum.

XXX. EFFECTIVE DATE

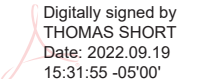
99. This Settlement Agreement shall be effective upon signature of this Settlement Agreement by the Director, Superfund and Emergency Management Division, U.S. EPA Region 5.

Signature Page for Settlement Regarding Lindsay Light II OU 27 Superfund Removal Site

IT IS SO AGREED AND ORDERED:

U.S. ENVIRONMENTAL PROTECTION AGENCY:

09/19/2022
Dated

**THOMAS
SHORT**  Digitally signed by
THOMAS SHORT
Date: 2022.09.19
15:31:55 -05'00' for
Douglas Ballotti, Director
Superfund & Emergency Management Division, Region 5

Signature Page for Settlement Regarding Lindsay Light II OU 27 Superfund Removal Site.

The undersigned representative of Respondent certifies that s/he is fully authorized to enter into the terms and conditions of this Settlement Agreement and to bind the party s/he represent to this document.

FOR SC GRAND DEVELOPMENT LLC:

09/15/22

Dated

**Adam
Friedberg**

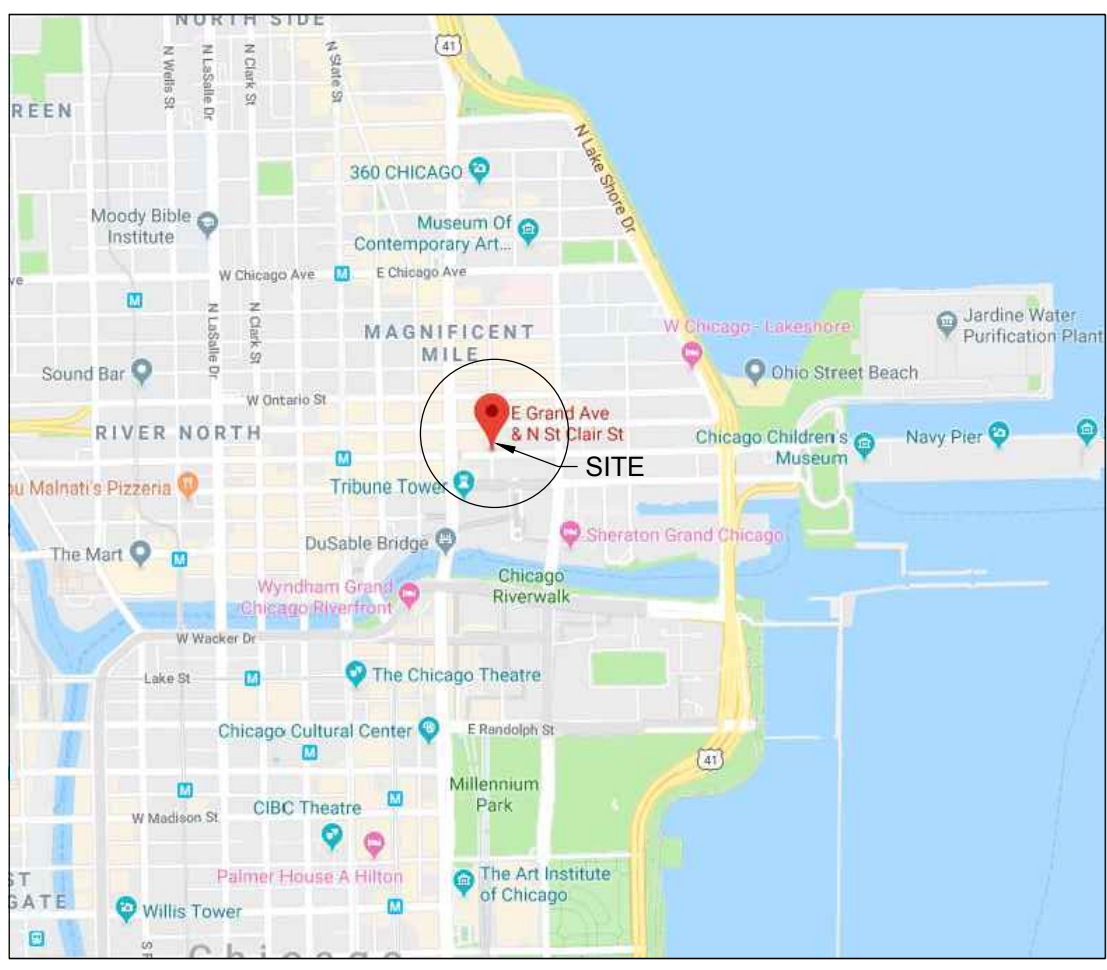
Digitally signed by Adam
Friedberg
Date: 2022.09.15
10:28:47 -05'00'

Adam Friedberg
Manager
SC Grand Development LLC
2211 North Elston
Suite 306
Chicago, Illinois 60607

Exhibit A

BOUNDARY & TOPOGRAPHIC SURVEY OF 535 ST. CLAIR STREET, CHICAGO, IL

THE WEST 216 1/3 FEET OF THE SOUTH 109 FEET OF BLOCK 20 IN KINZIE'S ADDITION TO CHICAGO IN THE NORTH 1/2 OF SECTION 10, TOWNSHIP 39 NORTH, RANGE 14, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.



VICINITY MAP NOT TO SCALE

AREA

23,580 SQ. FT. 0.5413 ACRES

UTILITY ATLAS NOTES:

OFFICE OF UNDERGROUND COORDINATION DESIGN STAGE REQUEST

OUC FILE #IR-114283 RECEIVED 02/08/22 CONTACTS PROVIDED BY OUC & LISTED BELOW WERE CONTACTED BY OUC, REQUESTING UTILITY ATLAS INFORMATION BETWEEN 02/08/2022 AND 03/08/2022.

CONTACTS

RESPONSE

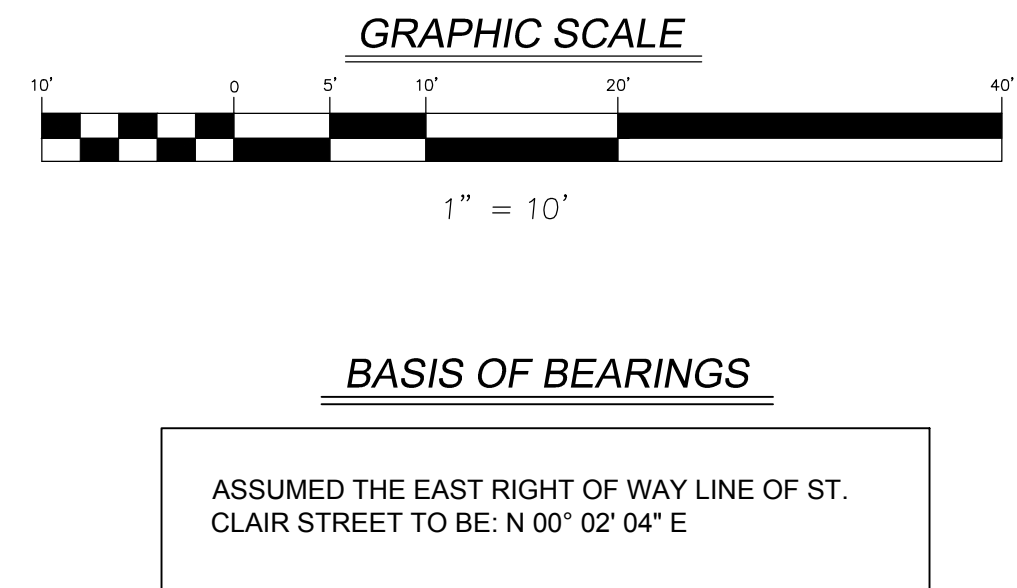
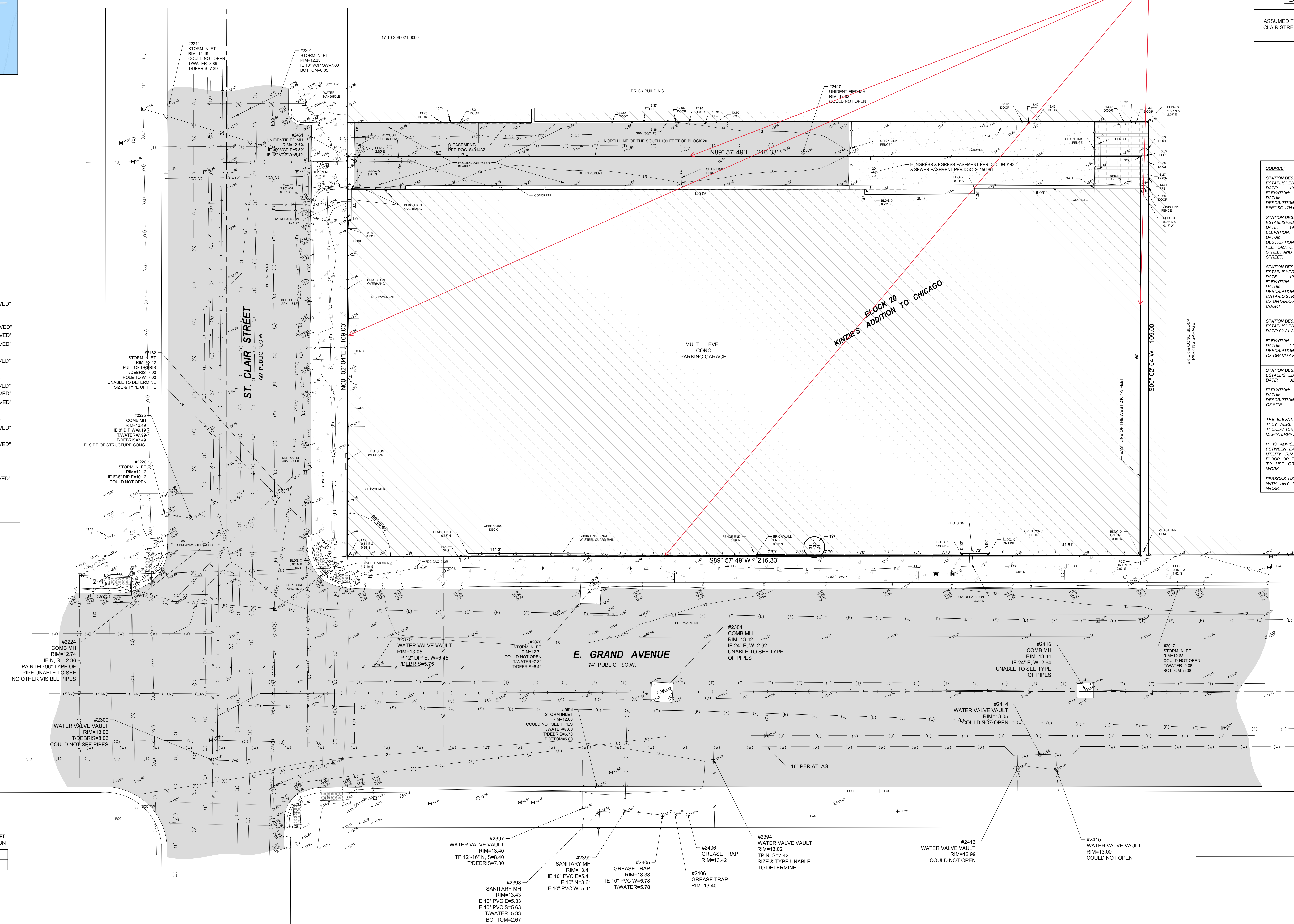
Table with 2 columns: CONTACTS and RESPONSE. Lists various utility companies and their responses to the atlas request.

NOTES FROM SCHEDULE B PART II

Table with 3 columns: EXCEPTIONS, PLOTTED HEREON, and YES/NO. Lists specific exceptions for the survey.

GENERAL NOTES

- 1. COMPARE THIS PLAT, LEGAL DESCRIPTION AND ALL SURVEY POINTS AND MONUMENTS BEFORE ANY CONSTRUCTION... 2. DO NOT SCALE DIMENSIONS FROM THIS PLAT... 3. THE LOCATION OF THE PROPERTY LINES SHOWN ON THE FACE OF THIS PLAT ARE BASED UPON THE DESCRIPTION AND INFORMATION FURNISHED BY THE CLIENT...



BENCHMARK SOURCE: STATION DESIGNATION: BENCHMARK 9 ESTABLISHED BY CITY OF CHICAGO DATE: 1982 (PUBLISHED AND HELD) ELEVATION: 12.85 (MEASURED) DATUM: CGD...

LEGEND and ABBREVIATIONS. Legend lists symbols for various utilities like water, sewer, gas, and electric. Abbreviations list symbols for manholes, valves, and traps.

SURVEYOR'S CERTIFICATE

STATE OF ILLINOIS) SS COUNTY OF DUPAGE) I, CHARLES W. BARTOSZ, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT I HAVE SURVEYED THE ABOVE DESCRIBED PROPERTY AND THAT THIS PLAT IS A TRUE AND CORRECT REPRESENTATION THEREOF...

Project information and title block. Includes Project No. 19045.EEA, Group No. VP03.0, and contact information for ERIKSSON ENGINEERING ASSOCIATES, LTD. in Woodridge, IL.

Exhibit B

EXHIBIT B

Legal description:

THE WEST 216 $\frac{1}{3}$ FEET OF THE SOUTH 109 FEET OF BLOCK 20 IN KINZIE'S
ADDITION TO CHICAGO IN

THE NORTH $\frac{1}{2}$ OF SECTION 10, TOWNSHIP 39 NORTH, RANGE 14, EAST OF THE
THIRD PRINCIPAL

MERIDIAN, IN COOK COUNTY, ILLINOIS.

Exhibit C

EXHIBIT C

DISBURSEMENT OF SPECIAL ACCOUNT FUNDS/COST SUMMARY AND CERTIFICATION

1. Lindsay Light II Superfund Site Special Account and Agreement to Disburse Funds to PRP(s) Performing Investigation, Excavation, Management, Transportation and Disposal Actions Related to Cleanup of Lindsay Light Removal Sites.

Pursuant to CERCLA § 122(b)(3), U.S. EPA has established a special account, the Lindsay Light II Special Account, within the EPA Hazardous Substance Superfund to be used at or in connection with the Lindsay Light II CERCLA removal sites in Chicago, Illinois. In addition, as provided by *In Re: Tronox Inc.*, Case No. 09-10156 (Bankr. SDNY) (ALG) Consent Decree and Environmental Settlement Agreement, lodged November 23, 2010, as amended by the First Amendment to the Consent Decree and Environmental Settlement Agreement, and as approved by the Bankruptcy Court on February 14, 2011 (Tronox Bankruptcy Settlement Agreement), together with the U.S. District Court-approved Anadarko Settlement Agreement, U.S. EPA has deposited funds into the Lindsay Light II Special Account to be retained and used to conduct or finance response actions at or in connection with the Lindsay Light II sites or to be transferred by U.S. EPA to the EPA Hazardous Substance Superfund. At U.S. EPA's sole discretion, U.S. EPA may disburse funds from the Lindsay Light II Special Account to the Respondent in accordance with the procedures set forth in this Exhibit. The Respondent shall not be entitled to any other funds controlled by U.S. EPA in connection with the Lindsay Light II Superfund removal sites.

2. Timing, Amount and Method of Disbursing Funds from the Lindsay Light Special Account.

U.S. EPA will transfer the funds from the Special Account by electronic wire transfer to the Respondent as set forth in this Paragraph. The funds transfer will occur within one hundred eighty (180) days of U.S. EPA's receipt of a Cost Summary and Certification, as defined by Subparagraph 3b, or if U.S. EPA has requested additional information under Subparagraph 3b or a revised Cost Summary and Certification under Subparagraph 3c, then within one hundred eighty (180) days of receipt of the additional information or revised Cost Summary and Certification, and subject to the conditions set forth in this Exhibit and only to the extent such reimbursement is not prohibited by any law or regulation.

3. Requests for Disbursement of Lindsay Light II Special Account Funds.

- a. Upon receipt of U.S. EPA's Notice of Completion of Work, per Paragraph 96 of Administrative Settlement Agreement and Order on Consent (Settlement Agreement) to which this is attached, Respondent shall submit to U.S. EPA a Cost Summary and Certification, as defined in Subparagraph 3b, for all remediation work performed at the Lindsay Light II Site OU 27 required by the Settlement Agreement and appendices

thereto including Lindsay Light-related contaminant investigation, excavation, management, transportation and disposal costs for which the Respondent seeks reimbursement from the Lindsay Light II Site Special Account. Respondent will be eligible for up to 95% of EPA-approved Lindsay Light-related contaminant investigation, excavation, and management costs not to exceed \$800,000 and for up to 100% of EPA-approved Lindsay Light-related contaminant transportation and disposal costs not to exceed \$2,500,000 that Respondent incurs in compliance with this Settlement Agreement and EPA-approved Work Plan.

b. The Cost Summary and Certification shall include a complete and accurate written cost summary and certification of the necessary costs incurred and paid, by the Respondent for the Work covered by the particular submission, excluding costs not eligible for disbursement under Paragraph 4. The Cost Summary and Certification shall contain the following statement signed by the Respondent's Chief Financial Officer:

"To the best of my knowledge, after thorough investigation and review of Respondent's documentation of costs incurred and paid for Work performed pursuant to this Settlement Agreement, I certify that the information contained in or accompanying this submittal is true, accurate, and complete. I further certify that Respondent has not received reimbursement of these costs through any other settlement of a claim in bankruptcy and Respondent does not have any potential claim against another party (including insurer) for these costs. I am aware that there are significant penalties for knowingly submitting false information, including the possibility of fine and imprisonment."

The Respondent's Chief Financial Officer shall also provide U.S. EPA a list of the documents that he or she reviewed in support of the Cost Summary and Certification. Upon request by U.S. EPA, Respondent shall submit to U.S. EPA any additional information that U.S. EPA deems necessary for its review and approval of the Cost Summary and Certification.

c. If U.S. EPA finds that the Cost Summary and Certification includes a mathematical accounting error, costs or cost estimates excluded under Paragraph 4, costs or cost estimates that are inadequately documented, or costs or cost estimates submitted in a prior Cost Summary and Certification, U.S. EPA will notify Respondent and provide an opportunity to cure the deficiency by submitting a revised Cost Summary and Certification. If Respondent fails to cure the deficiency within thirty (30) days after being notified of, and given the opportunity to cure, the deficiency, U.S. EPA will recalculate Respondent's costs eligible for disbursement for that submission and disburse the corrected amount to Respondent in accordance with the procedures in Paragraph 1 of this Exhibit. Respondent may dispute U.S. EPA's recalculation under this Paragraph pursuant to dispute resolution procedures that may be established by this Settlement Agreement. In no event shall Respondent be disbursed funds from the Special Account in excess

of amounts properly documented in a Cost Summary and Certification accepted or modified by U.S. EPA.

4. Costs Excluded from Disbursement.

The following costs are excluded from, and shall not be sought by Respondent for, disbursement from the Special Account: (a) response costs paid pursuant to this Settlement Agreement; (b) any other payments made by Respondent to the United States pursuant to this Settlement Agreement, including, but not limited to, any interest or stipulated penalties; (c) attorneys' fees and costs, except to the extent that such costs qualify as response costs under CERCLA; (d) costs of any response activities Respondent performs that are not required under, or approved by U.S. EPA pursuant to this Settlement Agreement or its appendices; (e) costs related to Respondent litigation, settlement, development of potential contribution claims, or identification of defendants; (f) internal costs of Respondent including, but not limited to, salaries, travel, or in-kind services, except for those costs that represent the work of employees of Respondent directly performing the U.S. EPA-approved Settlement Agreement Work; or (g) any costs incurred by Respondent pursuant to dispute resolution; (h) costs received or receivable through any other settlement of a claim in bankruptcy; and (i) any costs associated with potential claims against another party (including insurer).

5. Termination of Disbursements from the Special Account.

U.S. EPA may terminate any obligation to disburse funds from the Lindsay Light Special Account under the Settlement Agreement if it determines that Respondent: (a) has knowingly submitted a materially false or misleading Cost Summary and Certification; (b) has submitted a materially inaccurate or incomplete Cost Summary and Certification, and has failed to correct the materially inaccurate or incomplete Cost Summary and Certification within thirty (30) days after being notified of, and given the opportunity to cure, the deficiency; or (c) failed to submit a Cost Summary and Certification as required by Paragraph 3 within thirty (30) days (or such longer period as U.S. EPA agrees) after being notified that U.S. EPA intends to terminate its obligation to make disbursements because of Respondent's failure to submit the Cost Summary and Certification as required by Paragraph 3. The Respondent shall be entitled to dispute any action taken by the U.S. EPA pursuant to this Paragraph 5 pursuant to the dispute resolution provisions of this Settlement Agreement. U.S. EPA's obligation to disburse funds from the Special Account shall also terminate upon U.S. EPA's assumption of performance of any portion of the remediation work, when such assumption of performance of the work is not challenged by Respondent or, if challenged, is upheld under the dispute resolution provisions of this Settlement Agreement.

6. Recapture of Special Account Disbursements.

Upon the termination of disbursements from the Special Account under Paragraph 5, if U.S. EPA has previously disbursed funds from the Special Account for activities specifically related to the reason for termination (such as the discovery of a materially false or misleading submission after disbursement of funds based on that submission), U.S. EPA may submit a bill to Respondent for

Lindsay Light II OU 27
SC Grand Development LLC
Admin. Settlement Agreement and
Order on Consent for Removal Action

those amounts already disbursed from the Special Account specifically related to the reason for termination, plus Interest on that amount covering the period from the date of disbursement of the funds by U.S. EPA to the date of repayment of the funds by Respondent. Within twenty (20) days of receipt of U.S. EPA's bill, Respondent shall reimburse the Special Account for the total amount billed by a certified or cashier's check or checks made payable to the "Lindsay Light Special Account" within the EPA Hazardous Substance Superfund referencing the name and address of the party making payment, EPA Site/Spill Identification No. 05YT OU 27. Respondent shall send the check to:

U.S. Environmental Protection Agency
Superfund Payments
Cincinnati Finance Center
P.O. Box 979076
St. Louis, MO 63197-9000

and shall send copies of the check(s) to the United States and to the Region 5 Docket Clerk. Upon receipt of payment, U.S. EPA may deposit, at its sole discretion, all or any portion of the funds, in the Special Account or the Hazardous Substance Superfund. The determination of where to deposit or how to use the funds shall not be subject to challenge by Respondent pursuant to the dispute resolution provisions of this Settlement Agreement or in any other forum.

Exhibit D

EXHIBIT D

**Thorium Investigation Work Plan for
218 E. Grand Avenue, Chicago, Illinois
July 15, 2022**

1. INTRODUCTION

This work plan was developed for the investigation, and remediation of radiologically contaminated fill at sites located within the Lindsay Light Thorium Monitoring Area (TMA, refer to Figure 1). When projects involving the disturbance or exposure of subsurface fill (such as development, demolition, utility installation/maintenance, etc.) take place within the TMA, the interested party is required by the United States Environmental Protection Agency (USEPA) to investigate for radiologically contaminated fill. If the investigation reveals the presence of contaminated fill in areas where such fill is to be removed as part of site development, the interested party is required to remediate this fill, unless otherwise approved by the USEPA, until they meet the accepted removal action level previously established by USEPA (as discussed in Section 2.2).

Specifically, this work plan was prepared for the radiological investigation and the potential remediation of fill associated with the following project:

Site Name:	218 E. Grand Avenue, Chicago, Illinois
Site Location:	218 E. Grand Avenue, Chicago, IL (Cook County Assessor's Office, Tax Map designation: PIN: 17-10-209-022-0000
Current Site Use:	The Site is bound to the east and the north by existing buildings, to the south by East Grand Avenue, and to the west by North St. Clair Street. The existing structure is a multi-story parking garage that will require demolition prior to construction of the new building.
Reason for Subsurface Intrusion:	Demolition of existing structure in order to build a new building.
Proposed Future Site Use:	Multi-use residential building
Existing environmental Information	Phase I Environmental Site Assessment Report – January 27, 2020 Phase II Environmental Site Assessment Report – February 20, 2020

The following investigations, if applicable, will be pursued and are detailed in this work plan to accurately determine whether radiological contamination is present at the site described above:

- surface radiological surveying;
- subsurface down-hole radiological survey and subsurface fill sampling; and
- continuous subsurface radiological surveys during subsurface work.

If radiologically contaminated fill is detected on the site in areas where such fill is to be removed as part of site development, this fill will be remediated through removal unless otherwise approved by the USEPA. See Section 2.2 for information on determining whether fill is contaminated. This work plan describes the following remediation activities:

- removal of contaminated fill;
- transportation of contaminated materials;
- disposal of contaminated materials;
- confirmation sampling; and
- verification sampling.

2. BACKGROUND

This section presents background information on the history of radiological contamination caused by Lindsay Light, and site-specific information related to the history and use of the site. The history of fill activities and events resulting in thorium contamination throughout Streeterville, New East Side, and River North neighborhoods is complex and generally unknown. Definitions for terms used within the work plan are provided below.

Clean Fill: clean construction or demolition debris, also known as “clean fill”, is defined as uncontaminated broken concrete without protruding metal bars, bricks, rock, stone, reclaimed asphalt pavement, or dirt or sand generated from construction or demolition activities. Please refer to the following links for further information:

- IEPA Clean Construction or Demolition Debris (CCDD): <https://www2.illinois.gov/epa/topics/waste-management/waste-disposal/ccdd/Pages/default.aspx> and
- Household Waste Disposal Solutions: <https://www2.illinois.gov/epa/topics/waste-management/waste-disposal/household-hazardous-waste/Pages/disposal.aspx>

Fill shall mean man-made deposits of natural soils, rock products and/or waste materials (ASTM D653-14 Standard Terminology Relating to Soil, Rock, and Contained Fluids). Fill components may include a variety of identifiable materials including brick, cement, wood, wood ash, coal, coal ash, boiler ash, clunkers, other ash, asphalt, glass, plastic, metal, inert demolition debris, and roadside ditch materials. For the Lindsay Light Removal Sites in the Thorium Monitoring Area, “fill” and “urban fill” may be used interchangeably since all of the fill within the Thorium Monitoring Area is considered “urban”.

General Construction or Demolition Debris:

- As set forth in Section 3.160 of the Illinois Environmental Protection Act, 415 ILCS 5/3.160, general construction or demolition debris shall mean non-hazardous, uncontaminated materials resulting from the construction, remodeling, repair, and demolition of utilities, structures, and roads, limited to the following: bricks, concrete, and other masonry materials; soil; rock; wood, including non-hazardous painted, treated, and coated wood and wood products; wall coverings; plaster; drywall; plumbing fixtures; non-asbestos insulation; roofing shingles and other roof coverings; reclaimed or other asphalt pavement; glass; plastics that are not sealed in a manner that conceals waste; electrical wiring and components containing no hazardous substances; and corrugated cardboard, piping or metals incidental to any of those materials.
- General construction or demolition debris does not include uncontaminated soil generated during construction, remodeling, repair, and demolition of utilities, structures, and roads provided the uncontaminated soil is not commingled with any general construction or demolition debris or other waste.
- To the extent allowed by federal law, uncontaminated concrete with protruding rebar shall be considered clean construction or demolition debris and shall not be considered "waste" if it is separated or processed and returned to the economic mainstream in the form of raw materials or products within 4 years of its generation, if it is not speculatively accumulated and, if used as a fill material, it is used in accordance with item (i) in subsection (b) of Section 3.160 of the Illinois Environmental Protection Act, 415 ILCS 5/3.160.

Native Materials shall mean soil, sand, or rock that was present prior to the placement of fill. This refers to in-place (undisturbed) native materials.

Radioactive Material shall mean any material that spontaneously emits ionizing radiation (e.g., X- or gamma rays, alpha or beta particles, neutrons). For the Lindsay Light Removal Sites this term is generally applicable to radioactive materials that exceed the Removal Action Level.

Removal Action Level for the Lindsay Light Removal Sites is 7.1 pCi/g for total radium (radium-228 and radium-226) in soil, fill, and other solid materials.

Soil (earth) shall mean sediments or other unconsolidated accumulations of solid particles produced by the physical and chemical disintegration of rocks, and which may or may not contain organic matter (ASTM D653-14 Standard Terminology Relating to Soil, Rock, and Contained Fluids). The term "soil" is also used throughout this work plan as a single-word term for subsurface material requiring investigation, which may include soil (earth), fill, or some combination thereof.

Topsoil shall mean soil used for landscaping purposes, usually the original surface layer of grassland or cultivated land. It does not generally include soil from peat lands or other special areas, such as land disturbed by industrial activity. Topsoil is usually a darker shade of brown, grey, or red than the subsoil that lies immediately beneath it, because it contains organic matter intimately mixed with the mineral matter. Topsoil tends to be more friable and pervious than inorganic soils. (ASTM Standard D5268-13 Standard Specification for Topsoil Used for Landscaping Purposes).

2.1 Lindsay Light History

The Lindsay Light Company was a gas lantern mantle manufacturing company, which operated in Chicago from approximately 1902 until the mid-1930s. Lindsay Light manufactured incandescent gaslight mantles at several addresses in Chicago's downtown Streeterville and River North neighborhoods. A gaslight mantle is a small fabric bag infused with thorium or other metal nitrates that fits over the gas source. The heat from the gas flame burns off the mantle fabric leaving a fine metal mesh that glows brightly.

Lindsay Light used the radioactive chemical thorium nitrate to manufacture gaslight mantles. Lindsay Light produced thorium nitrate by obtaining thorium-containing ore, typically monazite, that was then processed to extract the thorium. The refining process produced a sand-like waste known as thorium mill tailings, that was used as fill throughout the Streeterville area of Chicago, and apparently in former boat slip areas on the south side of the Chicago River in what is now the New East Side neighborhood. It is also suspected that identified radioactive contamination may have resulted from spills of thorium nitrate and the redistribution of contaminated fill materials in the area.

The Lindsay Light Company also used asbestos containing material (ACM) in the manufacture of their gas lantern mantles. Specifically, ACM was used as a binding string to hold the cloth mantles in place in gas lanterns. Radioactive fill material with thorium-containing asbestos mantle strings has been discovered on several sites in the TMA during previous investigations.

As of 2022, under EPA's oversight of Lindsay Light CERCLA removal actions, more than 55,000 cubic yards of radioactively contaminated material associated with Lindsay Light operations has been removed from the TMA.

2.2 Public Health and Cleanup Considerations

Thorium decays through the emission of alpha particles, with accompanying gamma radiation. Gamma radiation can penetrate most materials, including human tissue. Thorium is considered a carcinogenic hazard. In the TMA, radiologically contaminated fill is considered contained when there is a layer of pavement or at least a 2-foot layer of separation between the surface and the contaminated fill. As a

result, the greatest risk for exposure is present during subsurface activities. To best protect the health of the public and workers at sites within the TMA, USEPA has developed proven investigation processes, and requires the removal and disposal of contaminated fill.

The USEPA has set the Removal Action Level as 5 pCi/g total radium (Ra-228 plus Ra-226) in dry soil, above background, for both surface and subsurface soils. This Removal Action Level is based on soil remediation standards found in 40 CFR Part 192 (Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings) and Section 332.150(b) of the Illinois Administrative Code. The 5 pCi/g standard was developed as a health-based standard and determined to be applicable for all surface and subsurface soils. USEPA considers an activity of 2.1 pCi/g total radium to be the background soil level for the TMA. Thus, USEPA has defined the Removal Action Level as 7.1 pCi/g total radium (Ra-228 plus Ra-226) in dry soil for radiologically contaminated fill or soil in the TMA. Any soils or fill with a total radium level greater than the 7.1 pCi/g Removal Action Level must be removed and properly disposed before USEPA will grant clearance for further work at the Site.

2.3 Site-Specific Background Information

The Site-specific background information below must be provided for each new project. This information can also be attached to this work plan.

Site Address:	218 E. Grand Ave., Chicago, IL
Site Latitude/Longitude:	The latitude is North 41.8919731 degrees: longitude is West - 87.621473 degrees
Site Size/Shape:	The Site is a rectangular parcel approximately 23,580 square feet
Parcel ID(s):	Cook County Assessor's Office, Tax Map designation: PIN: 17-10-209-022-0000
Site History (when/why site was originally developed, past uses/operators, current use, proposed future use):	The historical Sanborn Fire Insurance maps show the property as being first developed in 1906 as a horse stable and paint shop. The property was then redeveloped as a gasoline station and warehouse. The current parking garage was constructed in the 1960 time period
Existing Environmental/Geologic Information:	The geologic conditions documented during the Phase II investigation consisted of silty sands typical of the lakeshore areas in Chicago.

3. PROJECT APPROACH

This section presents information on how the Site investigation and potential remediation will take place, including the specific elements and sequencing of the Site investigation and remediation. This section also provides information on key project personnel.

3.1 Key Project Personnel

Role	Name	Agency/Company	Phone Number	EmailAddress
Site Owner–contact:	Adam Friedberg	MGW Streeterville LLC	773-899-1699	Adam@mavrekdevelopment.com
Construction Project Manager	Chris Hume	Cullen Construction Management	312-656-3404	chris@cullencm.com
Environmental Project Coordinator	Ronald W. Schrack,P.E	SECI	630-750-6291	Schrackeci@yahoo.com
Environmental Project Manager	Ronald W. Schrack,P.E	SECI	630-750-6291	Schrackeci@yahoo.com
Field Manager & Health and Safety Coordinator	Ronald W. Schrack,P.E	SECI	630-750-6291	Schrackeci@yahoo.com
Licensed Health Physicist	Glenn Huber	Stan A. Huber Consultants, Inc.	815-485-6161	glennhuber@sahci.com
USEPA On-Scene Coordinator	Verneta Simon	USEPA Region 5	312-886-3601	simon.vemeta@epa.gov
USEPA Health Physicist	Eugene Jablonowski	USEPA Region 5	312-886-4591	jablonowski.eugene@epa.gov

3.2 Proposed Scope of Work: Radiological Investigation

Before beginning any subsurface work at the Site, a site investigation for radiological contamination will be conducted. This investigation will continue throughout subsurface activities. The approach for this investigation is presented below.

3.2.1 Equipment and Calibration

A Ludlum 2221 Ratemeter/Scaler with a sodium iodide (NaI) probe (typically 2” x 2” or 3” x 3”) will be used for gamma radiation measurements throughout site investigation activities. The Ludlum 2221 and all NaI probes should be calibrated at least annually using the thorium calibration blocks at the Illinois Emergency Management Agency facility in West Chicago, Illinois.

This calibration will determine the gamma counts per minute (cpm) reading as reported by the Ludlum 2221 that correspond to:

- 1) the *Field Action Level (often referred to as the “cutoff level”)*, which is the counts per minute (cpm) value that corresponds to the 7.1 pCi/g Removal Action Level minus the count rate uncertainty; and
- 2) the *Field Twice Background Level*, which is the counts per minute (cpm) value that corresponds to 4.2 pCi/g which is twice the established background level.

If lead shielding (a collimator) on the NaI detector will be used to obtain more isolated directional readings of gamma radiation, the Ludlum 2221 should be calibrated with each relevant shielding and detector setup. The Field Action Level(s) (the calibrated counts per minute equivalent of the Removal Action Level) will be recorded on calibration forms and on the relevant equipment.

3.2.2 Surface Radiological Survey

Before beginning any subsurface work below the existing garage floor slab, a surface survey for radiological contamination will be conducted on the grade level concrete surface. A calibrated Ludlum Model 2221 Ratemeter/Scaler with a sodium iodide (NaI) detector (or similar) will be used to collect data on gamma radiation levels.

For the purposes of determining whether subsurface radiological contamination is present on the site, any gamma radiation levels observed to be greater than twice the background level (i.e. greater than 4.2 pCi/g) will be considered to be indicative of potential radiological contamination.

If no elevated gamma radiation readings are observed during the radiological surface survey, the results will be submitted to USEPA with a written request to begin excavation activities. Upon the receipt of approval from USEPA, excavation activities will begin. Excavation activities will follow the procedure for continuous subsurface radiological surveys and monitoring as described in Section 3.2.4.

The site radiation contractor Stan A. Huber Consultants, Inc. (SAHCI) will notify USEPA via email two (2) weeks prior to the commencement of the subsurface activities at the 218 E Grand property. The planned activity is to start potholing (clearing the excavation) for the caisson locations, sheet pile driving line, and removing the existing fill material. SAHCI will be onsite to monitor areas as fill material is removed at these locations. Per the Work Plan, SAHCI will notify USEPA immediately if any exceedances are identified.

3.2.3 Subsurface Down-Hole Radiological Survey

This section is not applicable since no down-hole surveys are planned. The section has been left within the work plan in order to maintain the original generic plan's section numbering and formatting.

3.2.4 Continuous Radiological Surveys During Subsurface Activities

During all subsurface construction-related activities, radiological surveys will be conducted using the Ludlum Model 2221 at regular intervals (maximum 18 inches) to ensure that any radioactively contaminated soil present is identified for remediation. Specifically, radiological surveys will be conducted during subsurface excavations and the installation of subsurface elements, including utilities, grade beams, and caissons. USEPA has indicated that it expects complete investigation of all soil/fill across the site/property to the depth of native materials.

The current on-site building structure will be demolished to the approximate level of the surrounding public roadways being Grand Avenue and North St. Clair Street. Prior to demolition of the underground utility chase and mechanical room, a gamma walk-over survey of the underground utility chase and mechanical rooms will be conducted. See Figure 2. If any anomalies are detected during the basement walk-over survey, USEPA will be contacted.

The demolition plan includes the removal of the above ground structure to the existing ground level concrete floors. Once the structure is demolished to grade, removal of an identified underground storage tank will be completed. Next, the existing slab on grade will be removed and transported off-site for recycling. Radiological monitoring will then be performed to evaluate the ground surface below the existing slab. Any remaining subsurface structures including the utility chase, mechanical room

and foundation piers will then be removed and transported offsite for recycling. Radiological monitoring will take place during subsurface removal activities.

After the existing structure has been removed, a deep foundation system will be installed. Caisson potholing will be performed prior to installation. Radiological monitoring will be performed throughout the potholing process until native material has been reached at each caisson location. Since each caisson location will have been pre-screened for radiological contamination, additional monitoring should not be required during the caisson installation. The team anticipates the installation of belled caissons bearing on soil strata between 65' - 80' deep. Upon completion of caissons, a detention vault and grade beams will be excavated. Radiological monitoring will take place during excavation of the detention vault, grade beams, and any other subsurface excavations that have not already been monitored. Portions of the site that have not been monitored during excavation for caissons, the detention vault, and grade beams will be excavated and monitored until native material has been reached. The grade beams will then be framed & poured. Upon completion of the foundations, the site will be backfilled and slab on grade will be installed.

The entire property footprint will be radiologically monitored down to native material. Monitoring of fill material down to native material may take place throughout excavation for the building support system installation or the site may be pre-screened completely, immediately after the existing slab on grade has been removed. The sequencing of the radiological monitoring has not yet been determined.

During the installation of building support systems, such as caissons, radiological surveys will be conducted for excavated fill unless the areas have been previously screened. The depth interval and maximum gamma radiation readings will be recorded for each interval. If gamma radiation levels are observed to be below the Removal Action Level, the fill can be managed as regular fill. If gamma radiation levels exceed the Removal Action Level in areas where such fill is to be removed as part of site development, the specific area of contaminated fill will be determined and the contaminated fill will be containerized for transportation and off-site waste disposal. Remaining fill below the Removal Action Level will be managed as regular fill. The location, depth, and gamma radiation levels of any contaminated fill will be reported to USEPA. A determination on whether any additional remediation of contaminated fill will be made in concert with USEPA. Radiological surveys will be conducted until the maximum depth of fill has been reached and native material is observed (expected to be at 5 to 8 below ground surface).

3.3 PROPOSED SCOPE OF WORK: RADIOLOGICAL REMEDIATION

If contaminated fill with levels of total radium exceeding the Removal Action Level is discovered during any of the investigation activities described in Section 3.2, this fill must be remediated through removal and disposal unless otherwise approved by the USEPA. Contaminated fill will be removed through mechanical excavation. All excavation areas will be considered exclusion zones and will require the installation of fencing and signage to keep unauthorized individuals from entering the area. Any personnel entering the excavation area must have appropriate training and PPE as described in the health and safety plan and determined by the Health Physicist.

3.3.1 Removal of Contaminated Fill

The removal of radiologically contaminated fill will be accomplished through mechanical excavation. For the purposes of confirmation and verification of fill remediation, removal areas may be divided into 10-meter by 10-meter grids, yielding a maximum grid size of 100 square meters. Fill will be excavated in lifts with a maximum depth of 18 inches, using an excavator with a maximum bucket size of 1 cubic yard. This bucket size allows for clean transfer of contaminated fill into containers, limiting the amount of contaminated fill introduced to the surface of the site. Contaminated fill will be placed directly into either bulk storage bag containers for temporary staging, or metal-lined containers for transportation and disposal. Approval must be obtained from USEPA if any contaminated fill will be temporarily staged on site. If contaminated fill is temporarily staged in bulk storage bag containers, the containers

will be isolated from the general public, and marked with appropriate signage to indicate the radiological hazard. A representative fill sample will be collected for each container of removed contaminated fill to document the radiation levels of materials that will be transported and disposed of. This sample will be analyzed by gamma spectroscopy by a laboratory or the Health Physicist. Sampling of contaminated fill must also be performed to meet all requirements of the radioactive waste disposal facility that receives the material.

After each lift is excavated, the Health Physicist will perform a walkover radiological survey of the excavation area using the methodology described in Section 3.2.4. The maximum gamma radiation reading for each depth interval will be recorded. The excavation will continue until gamma radiation levels are observed that are below the Removal Action Level.

3.3.2 Transportation of Contaminated Materials

Radiologically contaminated materials (consisting of removed fill and contaminated equipment and field materials) will be transported from the site to a licensed/permitted commercial disposal facility as soon as possible following excavation. All radiologically contaminated material will be transported in accordance with U.S Department of Transportation regulations. The following procedures will be followed to minimize the potential effect of spills and accidents during transport of contaminated materials:

- Drivers will have the appropriate licenses, training, and certifications for transporting radioactive materials.
- All transportation and packaging will meet applicable U.S. Department of Transportation regulations. Trucks transporting radioactive materials will have sealed or lined containment. All vehicle containers containing contaminated materials will be covered and secured prior to exiting the site. Trucks will carry all necessary papers and hazardous materials placarding as required by law.
- Before any vehicles used to transport contaminated material are allowed to exit the site, they will be surveyed to ensure points of potential contact with contaminated material are not contaminated, if they have had the potential to come in contact with contaminated fill. This will include tires, the truck body, and the exterior of transport containers.
- If necessary, any contaminated vehicles and equipment will be decontaminated. Dry decontamination methods will be used wherever possible to avoid the generation of potentially contaminated water. If needed, pressurized water will be used for further decontamination. Water generated during decontamination will be contained and evaporated, used for dust control on contaminated fill designated for disposal, or if necessary, sent for disposal at a licensed/permitted commercial disposal facility.

All vehicles transporting contaminated materials from the site will follow a designated traffic plan to limit the risk of accidents or spills in densely populated areas.

3.3.3 Disposal of Contaminated Materials

All materials with radiological contamination that exceeds the Removal Action Level will be disposed of at a licensed/permitted commercial disposal facility. The details regarding the specific disposal facility will be submitted to USEPA for approval prior to the transport of any contaminated materials to said facility. The disposal facility must either be licensed by the U.S. Nuclear Regulatory Commission or Agreement State agency or permitted by the receiving state as indicated in the receiving facility's RCRA permit. The disposal facility must also meet USEPA's Off-Site Rule requirements.

3.3.4 Confirmation Sampling

Once the excavation of contaminated fill has reached a depth at which gamma radiation levels are below the Removal Action Level, a confirmation sample may be collected from each removal grid (maximum area of 100 square meters). With prior USEPA approval, the confirmation sample may be

eliminated for small time-critical areas. The confirmation sample will be collected by dividing each removal grid into four equal quadrants. One fill aliquot will be collected from each quadrant at a point approximately equidistant from the center of the removal grid and the external corner of the quadrant. A final aliquot will be collected from the center of the removal grid, resulting in five sample aliquots. These five aliquots will be composited, homogenized, and passed through a sieve with ¼-inch mesh. The homogenized, sieved fill will then be analyzed by a USEPA-approved laboratory by gamma spectroscopy. If the level of total radium is greater than the Removal Action Level based on gamma spectroscopy results, USEPA will be notified and removal activities will recommence. If the level of total radium is less than the Removal Action Level, USEPA will be notified so that a verification sample can be collected by USEPA, as described in Section 3.3.5.

3.3.5 Verification Sampling

The USEPA verification sample will act as a final validation that the full extent of contaminated fill has been removed from each removal grid, and the grid can be cleared for normal construction operations. USEPA will collect one sample per 100 square meter (or less) removal grid using the same methodology used to collect the confirmation sample, as described in Section 3.3.4. The verification sample will be submitted to an independent laboratory for gamma spectroscopy analysis. If results indicate that the total radium levels are greater than the Removal Action Level, removal activities will resume. If results indicate that the total radium levels are less than the Removal Action Level, USEPA will provide authorization that the remediation of the removal grid is complete, and normal construction activities can proceed.

4. HEALTH AND SAFETY CONSIDERATIONS

This section presents general health and safety considerations related to the radiological investigation and potential remediation on the site. For detailed health and safety information, refer to the site-specific health and safety plan.

4.1 SITE HAZARDS

Hazards at the site are divided into three main categories: radiological hazards, chemical hazards, and physical hazards. Radiological hazards consist of uranium-238 and thorium-232, and their respective decay series radionuclides. These radionuclides represent radiological hazards, typically as internal hazards when ingested or inhaled, and as external hazards through the emission of gamma radiation. USEPA classifies all radionuclides as Group A carcinogens – known human cancer-causing agents.

Asbestos is also a potential chemical hazard at sites within the TMA. Asbestos-containing gas lantern mantle binding strings have been discovered on Lindsay Light sites in the past. Typically, these binding strings contain chrysotile asbestos, at levels up to 95% chrysotile asbestos. USEPA has classified asbestos as a Group A carcinogen, a known human carcinogen.

Physical hazards at the site are primarily related to construction activities. These include heavy machinery operation, power tool operation, noise levels, uneven terrain, buried and overhead utilities, demolition activities, and weather-related hazards.

4.2 EXCLUSION ZONES

Any areas where radiological contamination exceeds the Removal Action Level will be designated exclusion zones. Active excavation areas will also be designated exclusion zones to ensure site safety. All exclusion zones will be isolated from the rest of the site using fencing. Radiological exclusion zones will also be marked with signs indicating the presence of radiological hazards. Signs will be installed at maximum 100-foot intervals along the perimeter of the exclusion zones. Access to the exclusion zones will be strictly controlled by the Health and Safety Coordinator, Field Manager, and Health Physicist. The Health Physicist will determine the appropriate level of PPE for all exclusion zones. Any individuals that require entry into exclusion zones must be approved by either the Health

and Safety Coordinator, Field Manager, or Health Physicist, and must be made aware of all pertinent hazards and required personal protective equipment prior to entry into the exclusion zone. All individuals working with contaminated fill at the site will be required to review and sign the site-specific health and safety training plan to document awareness of site hazards.

4.3 DECONTAMINATION

All personnel, equipment, and materials that enter exclusion zones or are otherwise suspected to have come into contact with radiologically contaminated materials will be required to undergo decontamination. Wipe samples will be collected from equipment that has come into direct contact with contaminated materials at the discretion of the Health Physicist. Wipe samples will be analyzed by gamma spectroscopy by a laboratory of the Health Physicist. All disposable materials that have potentially been in contact with radiological contamination will be disposed of in accordance with radiological disposal practices as described in Sections 3.3.2 and 3.3.3. Personnel, equipment, and non-disposable materials will be frisked with a G-M pancake probe before exiting the exclusion zone. If elevated radiation levels are detected, dry decontamination practices will be used wherever possible. The frisking and dry decontamination process will be repeated until an acceptable level of radiation is observed, or the Health Physicist determines that additional decontamination measures are required. At this point, the Health Physicist will determine the optimal course of action for further decontamination, including the use of wet decontamination, or the transport of personnel to medical facilities. If wet decontamination is required, all water used for decontamination will be contained on site. This water will be evaporated in place, used for dust control on contaminated fill, or disposed of using proper transportation and disposal practices.

4.4 AIR MONITORING

Air monitoring will be conducted during work activities that involve the handling of radiologically contaminated fill to ensure the protection of on-site workers and the general public, and to evaluate on-site work practices. Air quality monitoring will be performed through three primary means: visual observation, high volume air sampling, and personal exposure air monitoring. Visual observation will be used to determine the levels of fugitive dust emissions from the site. No visible dust will be used as the standard for controlling dust emissions from the site. Water will be used spray high traffic areas and areas of active excavation as needed to prevent generation of visible dust, and traffic speed limits will be used. If visible dust is generated during on-site activities, dust mitigation efforts will be increased. If visible dust continues to be generated, work activities will be halted until the problem can be effectively addressed.

High volume air sampling will also be conducted at the site to determine the levels of airborne contamination that may be exiting the site. Unless otherwise approved by the USEPA, a minimum of four high volume air samplers will be placed around the north, south, east and west perimeter sides of the active excavation. The high volume samplers will be located no further than 200 feet from the active excavation areas. Air samples will be analyzed for gross alpha concentration, using thorium-232 acting as the representative contaminant for determining action levels. Air samples must be analyzed 4 days after collection. If elevated levels of airborne radiological material are detected, remediation work activities will be halted until appropriate measures to limit airborne contamination can be determined in concert with USEPA.

Personal exposure air monitoring will be conducted on individuals operating within radiological exclusion zones. Personal air monitors, such as lapel samplers, will be used by all individuals entering exclusion zones, and filters will be analyzed daily or weekly for gross alpha count, using thorium-232 as the representative contaminant of concern. Records for individuals will be maintained to monitor personal exposure levels. If elevated levels of airborne radioactivity are detected, mitigation measures will be pursued, such as wetting fill in exclusion zones. If mitigation measures are ineffective, PPE will be elevated to include respirators, as directed by the Health Physicist.

5. USEPA REPORTING AND SITE CLEARANCE

Throughout the site investigation and remediation processes, regular communication with USEPA will be conducted to maintain a thorough understanding of site activities and regulatory requirements. Subsurface activities will be conducted in accordance with this Work Plan and a USEPA reviewed health and safety plan. A quality assurance project plan (QAPP) is not proposed given there is no known thorium contamination and the volume of fill to be screened is limited. USEPA will be notified at least 48 hours in advance of all subsurface activities. The results of radiological investigations, and any remediation if necessary, will be communicated in report form. Specifically, the results of radiological surveys, analytical results, and major site developments will be promptly communicated to USEPA. The detection of any material with radiological contamination in exceedance of the Removal Action Level requires immediate USEPA notification. If remediation activities are required, USEPA must be notified in advance of the dates and methods of removal, transport, and disposal of contaminated materials. Once field screening or the confirmation sampling results indicate that all fill contaminated above the Removal Action Level have been removed from removal grid, USEPA will conduct verification sampling and clear the specified removal grid for normal operations. Once USEPA has collected a verification sample and received an analytical verification of the effective remediation of the specified removal grid, USEPA will confirm clearance via email, letter or form, allowing normal construction operations in the verified removal grid.

6. SCHEDULE

Anticipated Schedule:	<ul style="list-style-type: none"> • Demolition of Building – week starting August 24, 2022. • Radiological surveys will be conducted during subsurface activities that will result in the disturbance of unscreened fill until completion of the construction work.
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7. DEVIATIONS FROM PRE-DRAFTED WORK PLAN

How Site Activities Will Deviate from Pre-Drafted Work Plan	<p>The following section of the generic work plan was found not be directly applicable</p> <ul style="list-style-type: none"> • Section 3.2.3 Subsurface Down-Hole Radiological Survey <p>Section 3.2.4 Continuous Radiological Surveys during Subsurface Activities aligns more to the proposed Site construction scope. Section 3.2.4 is also applicable to offsite work such as utilities.</p>
Provide a bullet-point list of any ways in which site activities will deviate from the pre-drafted work plan	Noted above.

8. ADDITIONAL INFORMATION

None

ATTACHMENTS

- Figure 1 – Lindsay Light Thorium Monitoring Area
- Figure 2 - Existing Subsurface Structures

Figure 1 – Lindsay Light Thorium Monitoring Area Map

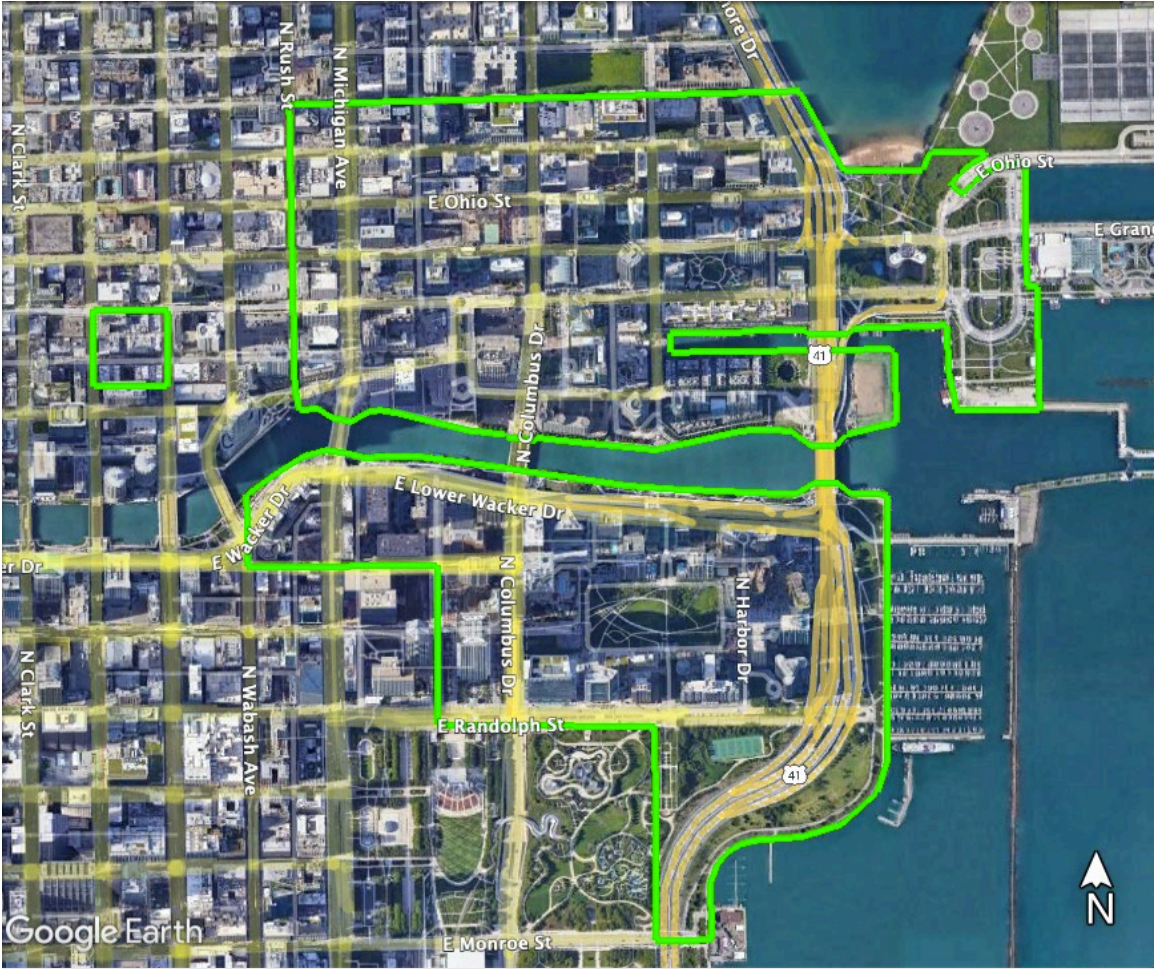
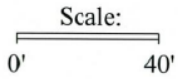
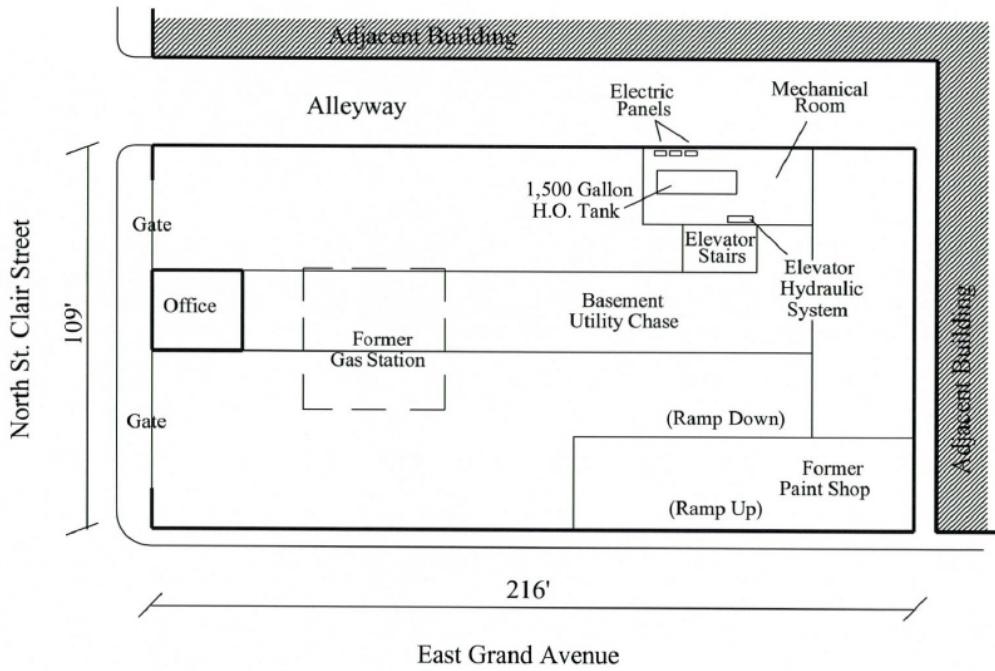


Figure 2 – Existing Subsurface Structures

218 E. Grand Avenue



(Interior Dimensions are Approximate)



Exhibit E

EXHIBIT E

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 REGION 5
 77 WEST JACKSON BOULEVARD
 CHICAGO, IL 60604-3590

September 14, 2022

REPLY TO THE ATTENTION OF:

SE-5J

MEMORANDUM

SUBJECT: Enforcement Action Memorandum – Determination of Threat to Public Health and/or the Environment at the Lindsay Light II Site/Operable Unit 27/
 218 East Grand Avenue fka 535 North St. Clair Street, Chicago, Cook County, Illinois (Site Spill ID #05YT OU27)

FROM: Verneta Simon, On-Scene Coordinator
 Emergency Response Branch II – Removal Section 4

Eugene Jablonowski, Health Physicist
 Remedial Response Branch II – Field Services Section

THRU: Sam Borries, Manager
 Emergency Response Branch II

TO: Douglas Ballotti, Director
 Superfund & Emergency Management Division

I. PURPOSE

The purpose of this Memorandum is to document the determination of an imminent and substantial threat to public health and the environment posed by encountering thorium and/or asbestos contaminated soil at 218 East Grand Street formerly known as 535 North St. Clair Street (“Site”). This property is being developed into a 21-story mixed-use building within the Lindsay Light Streeterville Thorium Moratorium Area (TMA) and during the post-Anadarko Settlement era.

U.S. EPA is negotiating a draft Administrative Settlement Agreement on Consent (ASAOC) with the future property owner SC Grand Development, LLC. St. Clair-Grand Garage, Inc. currently owns the property. The ASAOC has not yet been executed, because the closing has not occurred on this property. If the closing does not occur and the property remains in use as a parking garage, it is unlikely that there would be a short-term soil disturbance sufficient to pose an imminent and substantial threat to public health and the environment. The property transfer is scheduled for mid-September. MGW Streeterville LLC, the entity who will be managing the property for the property owner after the closing in mid-September, submitted a work plan which U.S. EPA approved on August 1, 2022. When the ASAOC is executed, this Action Memo will be incorporated as an Exhibit.

II. SITE CONDITIONS AND BACKGROUND

CERCLIS # IL0000002212

A. Site Description

1. Removal site evaluation

On April 27, 2022, U.S. EPA sent letters to various entities based on information contained in a Chicago Sun-Times article by Dave Roeder titled “Apartment and Office Project Planned in Streeterville” and Alderman Reilly’s weekly Reports. Those items mentioned demolition commencing by the end of the year at the parking garage located at 535 North St. Clair Street in advance of the development of a mixed-use building. Since U.S. EPA sent the letter, U.S. EPA has been communicating with an entity who plans to own this property and develop a mixed-use building. The closing on this property is scheduled for September 13, 2022. In preparation for the transfer of ownership, Schrack Environmental conducted a Phase II Environmental Site Investigation, which included soil borings by February 20, 2020. Also, GEI Consultants performed additional soil borings between May 17 and June 1, 2022. In addition, other activities such as the disconnection of water and sewer service have occurred in preparation for the demolition of the existing parking garage.

2. Physical location

This site is located at 218 East Grand Avenue in Chicago, Illinois, is approximately 0.55 acres and is bounded on the north by a public alley, to the south by Grand Avenue, to the east by a building, and to the west by St Clair Street. Furthermore, the location of this property is immediately east on St Clair from OU20, immediately north on Grand from OU16, and immediately diagonal from the former Lindsay Light I property, which is located at 161 E. Grand Avenue. Lindsay Light manufactured incandescent gas mantles using radioactive thorium and was historically one of the top gas mantle producers in the United States. As part of the production process, gas mantles were soaked in a solution of thorium nitrate and rare earth materials to provide a whiter light, and stronger and more heat-resistant gas mantle. Lindsay Light also produced thorium nitrate, as well as rare earth materials, for sale to other gas mantle manufacturers.

An Environmental Justice (EJ) analysis was performed and is contained in Attachment 3. The EJSCREEN Report for 218 East Grand Avenue does not reveal the potential for EJ concerns. All EJ Indexes are below the 80th percentile threshold. The average demographic index for this area is 23% while the national average demographic index is 36%.

According to the EJSCREEN Common User Guidelines, a site will be considered a good candidate for additional review when an EJSCREEN analysis for that area shows one or more of the twelve EJ Indexes is at or above the 80th percentile in the nation. An area may also warrant additional review if other information suggests the potential for EJ concerns.

3. Site Characteristics

Currently, this site has a multi-story above grade parking garage that will need to be demolished before construction begins.

4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant

Thorium, specifically Thorium-232, is an extremely long-lived radioactive contaminant with a half-life of 14 billion years that may present a threat of release for many future generations if not removed during construction work. Thorium was extracted from monazite, a phosphate mineral that contains rare-earth elements, including naturally occurring radionuclides of the Thorium and Uranium decay series, which are hazardous substances as defined by the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§ 9604, 9606(a), 9607 and 9622, as amended (CERCLA). The Thorium and Uranium decay series radionuclides include Radium-228 and Radium-226, with half-lives of 5.8 years and 1,620 years, respectively. This action is intended to reduce the amount of radioactively-contaminated soils that may present a threat of release.

The clean-up criterion for sites within the TMA is 7.1 pCi/g (Radium 226 + Radium 228). U.S. EPA has set the clean-up criterion as 5 pCi/g total radium (Ra-226 + Ra-228) in dry soil, above background, for both surface and subsurface soils. This clean-up criterion is based on soil remediation standards found in 40 CFR Part 192 (Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings) and Section 332.150(b) of the Illinois Administrative Code. The 5 pCi/g standard was developed as a health-based standard and determined to be applicable for all surface and subsurface soils. U.S. EPA considers an activity of 2.1 pCi/g total radium to be the background soil level for the TMA. Thus, U.S. EPA has defined the clean-up criterion as 7.1 pCi/g total radium (Ra-226 + Ra-228) in dry soil for radiologically contaminated fill or soil in the TMA. Any soils or fill with a total radium level greater than the 7.1 pCi/g must be removed and properly disposed before U.S. EPA will grant clearance for further work at the site. In addition to radioactive contamination, in April 2014, thorium-contaminated asbestos cords (typically known as mantle ties) were identified at Navy Pier. Historically, in certain gas mantles, asbestos cord was a component of the mantle design. Subsequently, thorium-contaminated asbestos cords were found at Lindsay Light OU14. Asbestos is a hazardous substance as defined by 40 CFR Section 302.4 of the National Contingency Plan. Sample analysis has confirmed the presence of asbestos in asbestos cord ranging from 20 to 25%, although the asbestos percentage in asbestos cord may approach 100%. Asbestos content greater than 1% represents a threat to the environment and public health and safety, especially due to the close proximity of pedestrians and construction workers to excavations.

5. NPL status

This Site is not on the National Priorities List (NPL).

B. Other Actions to Date

1. Previous actions

Since 1993, U.S. EPA has been assessing and overseeing the cleanup of contamination related to the Lindsay Light Company (Lindsay) in the Streeterville area of Chicago. In 1996, U.S. EPA issued a Unilateral Administrative Order (UAO) to Kerr-McGee Chemical LLC (Kerr-McGee), the successor corporation to Lindsay, and to the owner and developer of River East at 316 East Illinois Street. In 2000, U.S. EPA amended the UAO to include the property west of the site, 200 East Illinois, otherwise known as Grand Pier or Lindsay Light II/RV3 Site. Since 2000, with U.S. EPA's direction and oversight generally provided pursuant to consensual orders, property owners and developers have investigated and cleaned up more than 12 radioactively-contaminated properties associated with Lindsay. The action memoranda and respective administrative records for these actions are incorporated by reference into this decision document as set forth in the administrative record (Attachment 1). Typically, all radioactively-contaminated material identified has been removed and disposed of at a facility licensed to accept such material. Generally, the only known radioactive contamination exceeding the cleanup standard allowed to remain in place in Streeterville or West Chicago has been intertwined with utilities or infrastructure of road ramps, sidewalks, and roadways so that its removal presented significant engineering challenges.

2. Current actions

The current owner of OU 27 is St. Clair-Grand Garage, Inc. The property is expected to transfer to SC Grand Development, LLC who has indicated it will then execute the ASAOC.

C. State and Local Authorities' Roles

1. State and local actions to date

In 1999, at U.S. EPA's request, the Chicago Department of Environment established right-of-way permit procedures to ensure radiological screening before and during work exposing or intruding into subsurface soils in TMA rights-of-ways. A description of the procedures and a map of the TMA are available on the City of Chicago's website. U.S. EPA's TMA map is also attached to this Memorandum as Figure 1. These permit procedures have been useful but not 100% effective in preventing unmonitored intrusions into subsurface soils. The State of Illinois's role is described below in Section C.2.

2. Potential for continued State/Local response

Beginning in 1993, U.S. EPA has directed CERCLA response activities for Lindsay related radioactive contamination in Streeterville. In 1993, the Illinois Department of Nuclear Safety (now known as the Illinois Emergency Management Agency, Division of Nuclear Safety or "IEMA") participated in a joint building survey with U.S. EPA and ATSDR. IEMA has had very limited involvement with the Lindsay Light Removal Site because the Lindsay facility in downtown Chicago predates the Atomic Energy Act and did not hold a license from the Atomic Energy Commission or the Nuclear Regulatory Commission (NRC) or the Illinois

Agreement State authority conferred by the NRC. In contrast, IEMA has been and is currently involved with the Kerr-McGee West Chicago NPL sites, associated with the Rare Earth's Facility. The Rare Earth's Facility was a federally licensed radioactive materials facility and is currently licensed by IEMA, under NRC Agreement authority. Currently, IEPA is a signatory to and reviews environmental covenants for properties located within the TMA. On July 15, 2022, IEPA submitted an application to U.S. EPA for a Cooperative Agreement for \$73,095 to cover the costs associated with reviewing the environmental covenants. U.S. EPA expects to issue this award near the end of September 2022.

U.S. EPA has been working to develop the City of Chicago's capacity to conduct future radiation monitoring and cleanup of its rights-of-ways by awarding a Cooperative Agreement to the City of Chicago on September 25, 2012, to address the contamination in the City-owned Streeterville rights-of-ways. This Cooperative Agreement and a similar Cooperative Agreement with the Chicago Park District to remove radioactive contamination in DuSable Park were funded by a bankruptcy settlement with Tronox, LLC, a former subsidiary of Kerr-McGee and successor to Lindsay. Additionally, the Anadarko Fraud Litigation Settlement Agreement for the fraudulent conveyance claim resulted in additional settlement funds for the City and Chicago Park District, administered under the Cooperative Agreements. The Cooperative Agreements with the City and Chicago Park District have approved work plans which govern what work can be paid for under those agreements. After the City of Chicago's first Cooperative Agreement with U.S. EPA expired, EPA awarded a new Cooperative Agreement to continue to conduct radiation monitoring and cleanup of its rights-of-ways on January 1, 2019 for over \$45 million. After the Chicago Park District's first Cooperative Agreement with U.S. EPA expired, U.S. EPA awarded a new Cooperative Agreement to continue to remove radioactive contamination in DuSable Park on March 1, 2017, for \$6.8 million.

III. THREAT TO PUBLIC HEALTH OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

Conditions at the Lindsay Light II Site/OU 27 may pose an imminent and substantial endangerment to public health or welfare or the environment, based upon factors set forth in the National Contingency Plan (NCP), 40 CFR § 300.415(b)(2). These factors include:

- a) Actual or potential exposure to nearby populations, animals or the food chain from hazardous substances or pollutants or contaminants;

218 East Grand is located within the TMA. U.S. EPA and the City of Chicago require anyone planning to conduct subsurface work within the TMA to perform radiation monitoring.

To date, more than 55,000 cubic yards of thorium contaminated material has been shipped from the Streeterville area to disposal facilities in Idaho, Texas, and Utah. Given our extensive experience in Streeterville and the proximity to other contaminated Lindsay-contaminated properties, an actual or threatened exposure of thorium exists at this location.

- b) High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate;

Given the quantity of thorium contaminated soils removed from nearby properties to date, if proper measures to identify and control radiological contamination are not implemented, radioactively contaminated wastes may be released during current construction work.

- c) Other situations or factors which may pose threats to public health or welfare or the environment:

Since the initial removal action at 316 East Illinois in 1996, U.S. EPA has learned more about Lindsay's activities in Chicago. For example, Lindsay manufactured, at several locations in the Streeterville neighborhood of Chicago, gas lights and gas mantles for residential and commercial use beginning in approximately 1902. According to a U.S. Tariff Commission document on the Incandescent Gas-Mantle Industry published in 1920, in 1914 Lindsay expanded its thorium manufacturing capacity to meet the increased domestic and foreign demand caused by the outbreak of war in Europe. The production of thorium for the gas light mantles resulted in a sandy waste known as mill tailings that was often used as fill material. The November 1935 Lindsay Board of Director's Meeting minutes discuss plans to move Lindsay's Streeterville operations to the City of West Chicago by September 1936. At the West Chicago facility, which became known as the Rare Earths Facility or REF, Lindsay and its successors continued to produce thorium as well as other radioactive materials for commercial and defense related purposes. As a result of Lindsay's Rare Earths Facility thorium manufacturing and disposal activities, four West Chicago areas were listed on the National Priorities List of Superfund Sites.

In the West Chicago area, U.S. EPA, with the assistance of IEMA, has overseen the clean-up of over 670 properties in residential areas, a 100-acre public park, a sewage treatment plant, and beginning in the Spring of 2005, the clean-up of over six miles of creek and river in DuPage County. The widespread use of the thorium as fill in West Chicago likely reflects a similar widespread use of the Lindsay thorium residuals in Chicago. Unlike the relatively open areas in the City of West Chicago where the extensive nature of the thorium contamination was relatively easy to identify, most of the Lindsay thorium in Chicago is shielded from detection by asphalt, sidewalks, streets, and buildings. As a result of the Lindsay thorium waste disposal practices and the technical difficulties in identifying thorium contamination that is concealed by asphalt and pavement, to prevent uncontrolled exposure of the public to the elevated thorium levels, it is necessary to survey and monitor the property for thorium prior to and throughout the construction process.

IV. ENDANGERMENT DETERMINATION

Given the Site's condition, the nature of the contaminants, radioactive materials that cause external exposure, inhalation, ingestion, and direct contact hazards, as described in Sections II and III above, actual or threatened releases of hazardous substances from the Lindsay Light Removal Sites, if not addressed by implementing the response actions selected in this action memorandum, may present an imminent and substantial endangerment to public health, welfare, or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions:

1. Proposed Action Description

Pursuant to the executed ASAOC, the Respondent will fully remediate any thorium and/or asbestos contaminated soils encountered at the Site until maximum protectiveness of human health and the environment is achieved. This will involve at a minimum the following actions:

- 1) Develop a Work Plan for the radiological assessment and remediation of the Site.
- 2) Develop and implement a site health and safety plan.
- 3) Development and implement an air monitoring plan.
- 4) Develop and implement site security measures.
- 5) Establish a grid system to locate all property boundaries, special features (pipes, storage tanks, etc.), and sample locations.
- 6) Conduct surface radiological surveying. If no elevated gamma radiation readings are observed during the radiological surface survey, the results will be submitted to U.S. EPA with a written request to begin excavation activities.
- 7) Conduct subsurface radiological surveys during excavations to native soils within the borders of the Site. Excavations of the fill material will take place in lifts of no more than 18 inches in depth. If gamma radiation levels exceed the Removal Action Level, then the specific area of contaminated fill will be removed and containerized. The location, depth, and gamma radiation levels of any contaminated fill will be reported to U.S. EPA.
- 8) Collect soil samples from any contaminated fill and analyze for radionuclide content and RCRA characteristics.
- 9) Conduct off-site radiological surveying and sampling as necessary and, at a minimum, implement 40 CFR Part 192 if deemed necessary should contamination be discovered within the sidewalk rights-of-ways surrounding the property beyond current site boundaries.
- 10) Based upon soil results, remove, transport and dispose of all characterized or identified hazardous substances, pollutants, wastes or contaminants at a RCRA/CERCLA approved disposal facility in accordance with the U.S. EPA off-site rule.
- 11) The soil clean-up criterion is 7.1 picoCuries per gram (pCi/g) total radium (Ra-226 + Ra-228) including background, unless analyses indicate the existence of additional contaminants, hazardous substances, pollutants, or waste.

The OSC has begun planning for the provision of post-removal site control, consistent with the provisions of Section 300.415(k) of the NCP.

Respondent has indicated that it will conduct a complete investigation of all fill across the Site to the depth of native materials. If, however, the Respondent does not radiologically survey any of the Site in 18-inch lifts or leaves any known contamination after completion of the work described in the Work Plan, then the ASAOC requires that Respondent 1) identify and depict all locations at the Site that were not radiologically surveyed in 18-inch lifts or where any known contamination will remain after completion of the Work (using a scaled Site map with survey grade coordinates and elevations) and 2) implement a U.S. EPA-approved

Environmental Covenant or other U.S. EPA- approved institutional controls pertaining to the Site. Thus, the nature of Respondent's planned response actions should eliminate most exposure threats, which should minimize the need for post-removal site control except as described in the paragraph directly above.

The response actions described in this memorandum directly address actual or threatened released of hazardous substances, pollutants or contaminants at the facility which may pose an imminent and substantial endangerment to public health and safety, or the environment. These response actions do not impose a burden on the affected property disproportionate to the extent to which that property contributes to the conditions being addressed.

2. Contribution to Remedial Performance

The proposed action will not impede future responses based upon available information.

3. Applicable or Relevant and Appropriate Requirements (ARARs)

All applicable or relevant and appropriate requirements ("ARARs") will be complied with to the extent practicable. The primary Federal Applicable or Relevant and Appropriate Regulation for radioactive soil cleanup criteria is 40 CFR, Part 192 "Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings." Ancillary ARARs include: the NRC's regulations at 10 CFR, Part 20, "Standards for Protection Against Radiation;" NRC Regulatory Guide 1.86, "Termination of Operating License for Nuclear Reactors,;" and the Department of Transportation's regulations at 49 CFR for shipping hazardous materials. Relevant U.S. EPA guidance includes OSWER Directive No. 9200.4-25, issued February 12, 1998, regarding the "Use of Soil Cleanup Criteria in 40 CFR Part 192, as Remediation Goals for CERCLA sites."

Many of the regulations carried out by the NRC have been delegated to the IEMA. The State has previously identified the regulations at 32 IL. Administrative Code 322, Licensing Requirements for Source Material Milling Facilities, which contain the licensing requirements for source material milling facilities in Illinois, as relevant and appropriate to the cleanup of thorium in Streeterville. The cleanup standard for soils and sediment at the Site derived from the foregoing federal and state regulations is 7.1 pCi/g combined radium.

U.S. EPA will also implement the principle of ALARA (As Low as Reasonably Achievable) which refers to the cleanup of all materials above the cleanup standard, to the extent practicable. ALARA is described in DOE and NRC orders and regulations and in U.S. EPA regulations at 40 CFR § 192.22. U.S. EPA made the decision to achieve ALARA in an attempt to maximize protection of human health.

4. Project Schedule:

Not applicable

B. Estimated Costs:

Not available since this is an Enforcement Action Memorandum.

The response actions described in this memorandum directly address actual or threatened releases of hazardous substances, pollutants or contaminants at the facility which may pose an imminent and substantial endangerment to public health and safety, and to the environment. These response actions do not impose a burden on the affected property disproportionate to the extent to which that property contributes to the conditions being addressed.

VI. CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Delayed or non-action may result in increased likelihood of external exposure, inhalation, ingestion or direct contact to human populations accessing and working on the Site. Also, since there is no threshold for radiological risk, additional exposure to radiological materials will increase the cancer risk.

VII. OUTSTANDING POLICY ISSUES

None.

VIII. ENFORCEMENT

For Administrative purpose, information concerning confidential enforcement strategy for this Site is contained in Attachment 2, the Enforcement Confidential Addendum.

IX. RECOMMENDATION

This decision document represents the selected removal action for the Lindsay Light II Site/OU 27 located at 218 East Grand Avenue, in Chicago, Illinois, developed in accordance with CERCLA, as amended and is not inconsistent with the NCP. This decision is based upon the Administrative Record for this Site. Conditions at the Site meet the NCP Section 300.415(b) (2) criteria for a removal action.

APPROVE: X Douglas Ballotti Date: September 14, 2022
Douglas Ballotti, Director
Superfund & Emergency Management Division
Signed by: DOUGLAS BALLOTTI

DISAPPROVE: X Date: _____
Douglas Ballotti, Director
Superfund & Emergency Management Division

Attachments (3)

1. Index to the Administrative Record
2. Enforcement Confidential Addendum
3. EJSCREEN Report

Figure 1 – Lindsay Light Streeterville Thorium Monitoring Area Map

cc:

S. Ridenour, U.S. EPA 5104A (email: ridenour.steve@epa.gov)

J. Nelson, U.S. Department of Interior, **w/o Enf. Addendum** (email: John_Nelson@ios.doi.gov)

J. Willman, Illinois EPA, **w/o Enf. Addendum** (email: jerry.willman@illinois.gov) – IEPA
Contact

BCC PAGE HAS BEEN REDACTED

NOT RELEVANT TO SELECTION

OF REMOVAL

Attachment 1

**U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL ACTION**

**ADMINISTRATIVE RECORD
FOR THE
LINDSAY LIGHT II SITE
OPERABLE UNIT 27: 218 E. GRAND
(PROPERTY LOCATION FORMERLY KNOWN AS 535 N. ST. CLAIR ST.)
CHICAGO, COOK COUNTY, ILLINOIS**

**UPDATE 18
SEPTEMBER, 2022
SEMS ID:**

<u>NO.</u>	<u>SEMS ID</u>	<u>DATE</u>	<u>AUTHOR</u>	<u>RECIPIENT</u>	<u>TITLE/DESCRIPTION</u>	<u>PAGES</u>
1	977045	1/1/1921	U. S. Tariff Commission	Public	Tariff Information Surveys on the Articles in Paragraph 154 of the Tariff Act of 1935 and Related Articles in other Paragraphs	30
2	977044	11/19/1935	Lindsay, C.,	Lindsay Light Chemical Company	Memo - Re: Company Shares and Moving Entire Business to the West Chicago Plant	1
3	225821	7/17/2002	U. S. EPA	Public	Administrative Record Site Index - Lindsay Light II - Removal Action - OU 5 - Original (<i>This Document is Included by Reference Only</i>)	5
4	237450	7/18/2005	U. S. EPA	Public	Administrative Record Site Index - Lindsay Light II - Removal Action - OU 11 - Original (<i>This Document is Included by Reference Only</i>)	3

5	169546	1/6/2006	U. S. EPA	Public	Administrative Record Site Index - Lindsay Light II - Removal Action - OU 10 Former Kraft Building - Original <i>(This Document is Included by Reference Only)</i>	1
6	269376	11/7/2006	U. S. EPA	Public	Administrative Record Site Index - Lindsay Light II - Removal Action - OU 6 - Original <i>(This Document is Included by Reference Only)</i>	3
7	286409	4/25/2008	Simon, V., U.S. EPA	Karl, R., U.S. EPA	Enforcement Action Memorandum - Re: Determination of Threat to Public Health or the Environment (OU 7) <i>(This Document is Included by Reference Only)</i>	13
8	286425	4/25/2008	U.S. EPA	Public	Administrative Record Site Index - Lindsay Light II - Removal Action - OU 7 - Original <i>(This Document is Included by Reference Only)</i>	4
9	348105	6/24/2010	U.S. EPA	Public	Administrative Record Site Index - Lindsay Light II - Removal Action - OU 4 DuSable Park- Original <i>(This Document is Included by Reference Only)</i>	8
10	374553	2/9/2010	U.S. EPA	Public	Administrative Record Site Index - Lindsay Light II - Removal Action - OU 16 - Original <i>(This Document is Included by Reference Only)</i>	3

11	405516	9/28/2011	U.S. EPA	Public	Administrative Record Site Index - Lindsay Light II - Removal Action - Original and Updates 1-7 - OU 00, Updates 8 and 10 - OU 3, Update 9 - Post-Update Decision Documents, and Update 11 - OU1 <i>(This Document is Included by Reference Only)</i>	17
12	437085	6/25/2012	U.S. EPA	Public	Administrative Record Site Index - Lindsay Light II - Removal Action - OU 13 - Original <i>(This Document is Included by Reference Only)</i>	3
13	441203	11/9/2012	U.S. EPA	Public	Administrative Record Site Index - Lindsay Light II - Removal Action - OU 20 - Original <i>(This Document is Included by Reference Only)</i>	2
14	914897	8/14/2014	U.S. EPA	Public	Administrative Record Site Index - Lindsay Light II - OU 14: 545 N. McClurg - Removal Action - Update 12 <i>(This Document is Included by Reference Only)</i>	3
15	922131	10/9/2015	U.S. EPA	Public	Administrative Record Site Index - Lindsay Light II - Removal Action - Update 13 <i>(This Document is Included by Reference Only)</i>	4

16	922144	10/14/2015	U.S. EPA	Public	Administrative Record Site Index - Lindsay Light II - Removal Action - OU 10 - Update 14 <i>(This Document is Included by Reference Only)</i>	3
17	922186	11/4/2015	U.S. EPA	Public	Administrative Record Site Index - Lindsay Light II - Removal Action - OU 22 - Update 15 <i>(This Document is Included by Reference Only)</i>	5
18	928907	7/28/2015	U.S. EPA	Public	Administrative Record Site Index - Lindsay Light II - Removal Action - OU 7 - Update 16 <i>(This Document is Included by Reference Only)</i>	4
19	953582	1/27/2020	Schrack Environmental	Evergreen Bank Group	Phase I Environmental Site Assessment Summary Report - 535 North St. Clair Street <i>(This Document is Included by Reference Only)</i>	144
20	977046	2/20/2020	Schrack Environmental	Evergreen Bank Group	Phase II Environmental Site Investigation Summary Report (Revised) - 535 N. St. Clair Street	56
21	955182	4/8/2022	Mavrek Development NORR	General Public	535 N. St. Clair Street Conceptual Design	22

22	975203	4/28/2022	Simon, V., U.S. EPA	Mavrek Development NORR VX Consulting LLC	Letter Re: Property Owner Notification of Subsurface Work on 535 N. St. Clair Street w/Fedex Proof of Delivery	5
23	975820	6/1/2022	U.S. EPA	Public	Administrative Record Site Index - Lindsay Light II - Removal Action - OU 26 - Update 17 (<i>This Document is Included by Reference Only</i>)	4
24	976162	6/8/2022	Huber, G., SAHCI	Fathi, A., GEI Consultants	Thorium Monitoring Results - 535 N. St. Clair Street	4
25	976054	6/10/2022	Alderman Reilly	General Public	Alderman Reilly Reports - Demolition Notice: 535 N. St. Clair Street	27
26	975706	7/15/2022	Mavrek Development	Jablonowski, E., U.S. EPA	Thorium Investigation Work Plan for 218 E. Grand Avenue, Chicago, IL	14
27	976922	8/1/2022	Simon, V., U.S. EPA	Friedberg, A. Mavrek Development	Letter Re: Work Plan Approval	1
28	*****	*****	*****	*****	Enforcement Action Memorandum - (<i>Pending</i>)	***

Attachment 2

ENFORCEMENT ADDENDUM

HAS BEEN REDACTED

FOUR PAGES

**ENFORCEMENT CONFIDENTIAL
NOT SUBJECT TO DISCOVERY FOIA
EXEMPT**

**NOT RELEVANT TO SELECTION
OF REMOVAL ACTION**

Attachment 3

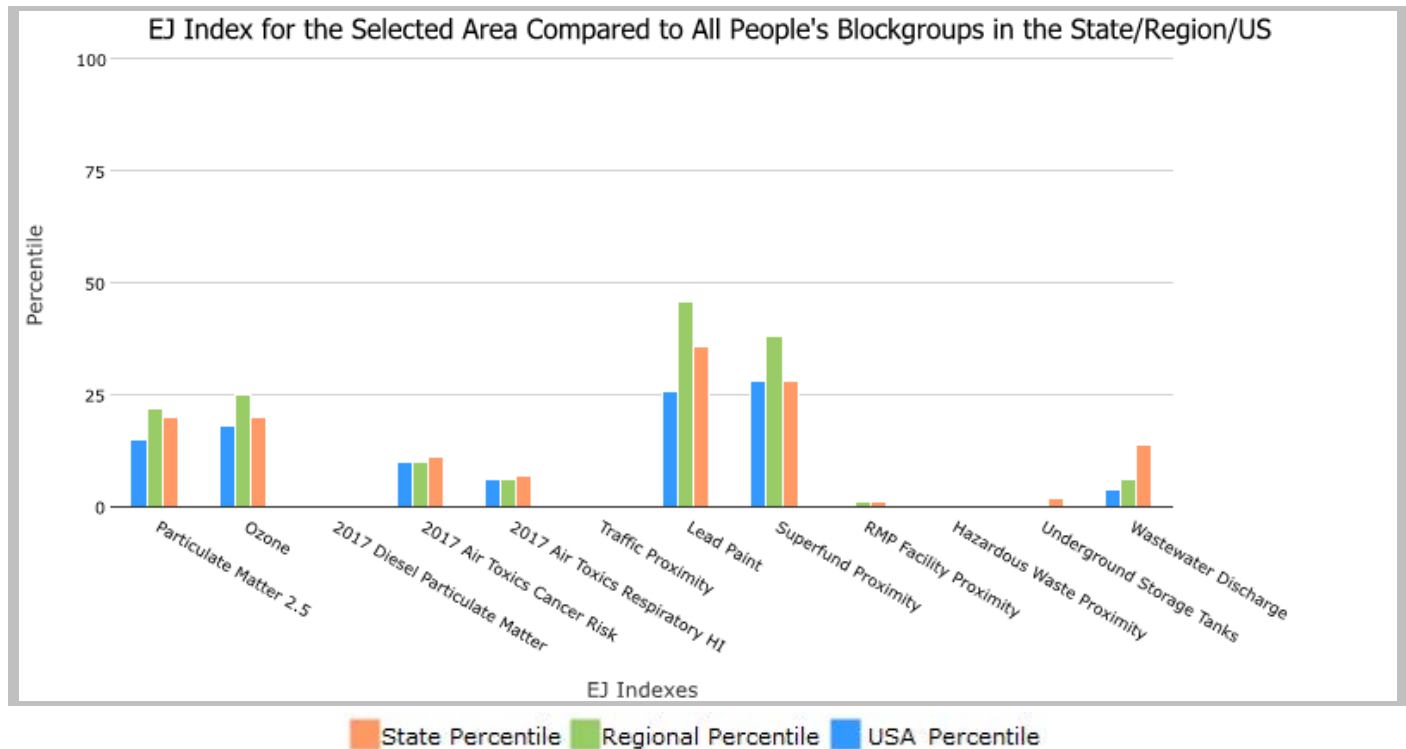
1 mile Ring Centered at 41.891852,-87.621829, ILLINOIS, EPA Region 5

Approximate Population: 83,689

Input Area (sq. miles): 3.14

Lindsay Light /218 E Grand (The study area contains 1 blockgroup(s) with zero population.)

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
Environmental Justice Indexes			
EJ Index for Particulate Matter 2.5	20	22	15
EJ Index for Ozone	20	25	18
EJ Index for 2017 Diesel Particulate Matter*	0	0	0
EJ Index for 2017 Air Toxics Cancer Risk*	11	10	10
EJ Index for 2017 Air Toxics Respiratory HI*	7	6	6
EJ Index for Traffic Proximity	0	0	0
EJ Index for Lead Paint	36	46	26
EJ Index for Superfund Proximity	28	38	28
EJ Index for RMP Facility Proximity	1	1	0
EJ Index for Hazardous Waste Proximity	0	0	0
EJ Index for Underground Storage Tanks	2	0	0
EJ Index for Wastewater Discharge	14	6	4



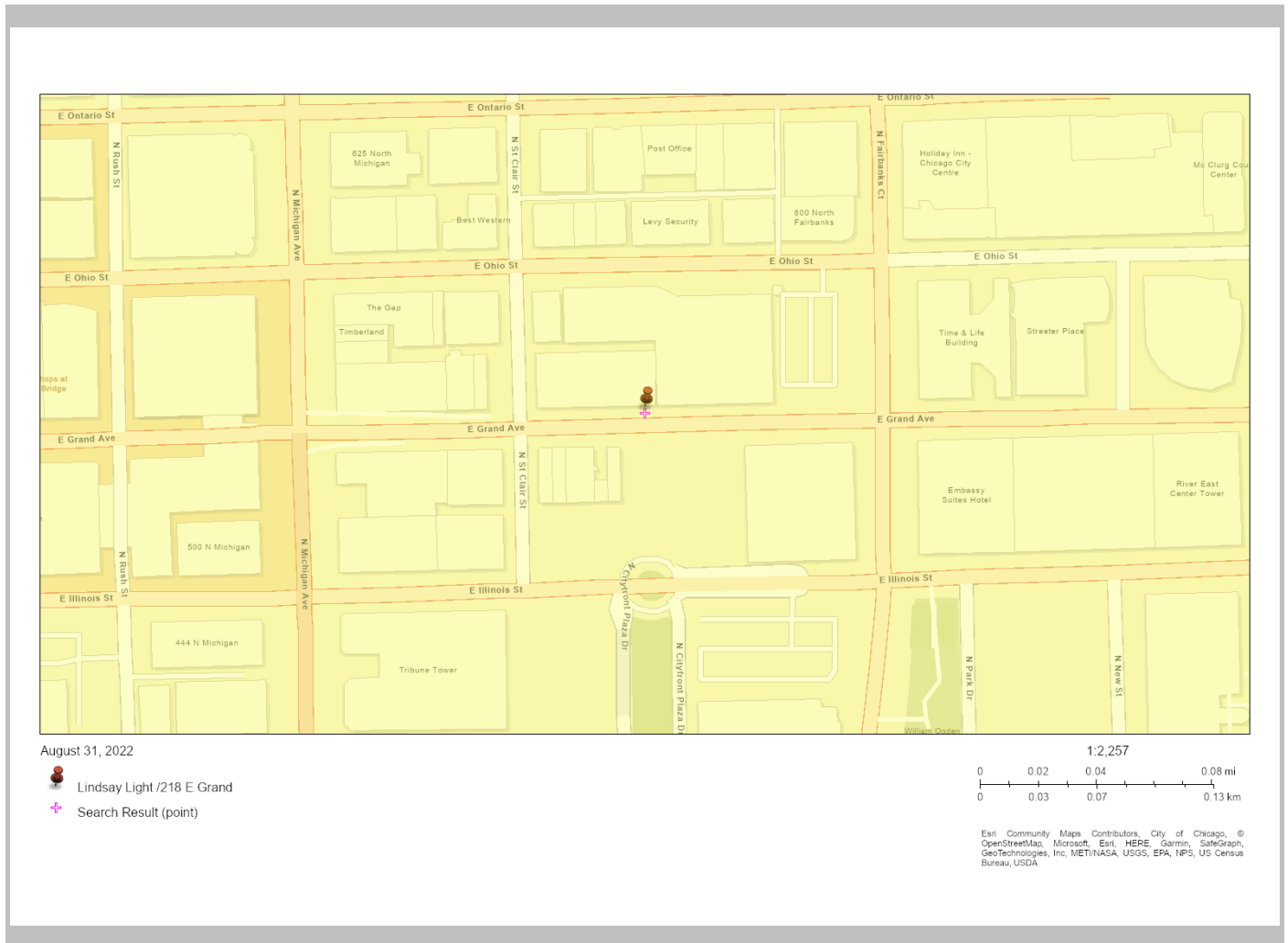
This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

1 mile Ring Centered at 41.891852,-87.621829, ILLINOIS, EPA Region 5

Approximate Population: 83,689

Input Area (sq. miles): 3.14

Lindsay Light /218 E Grand (The study area contains 1 blockgroup(s) with zero population.)



Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	13

EJScreen Report (Version 2.0)

1 mile Ring Centered at 41.891852,-87.621829, ILLINOIS, EPA Region 5

Approximate Population: 83,689

Input Area (sq. miles): 3.14

Lindsay Light /218 E Grand (The study area contains 1 blockgroup(s) with zero population.)

Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
Pollution and Sources							
Particulate Matter 2.5 ($\mu\text{g}/\text{m}^3$)	10.2	9.96	54	8.96	87	8.74	85
Ozone (ppb)	45.4	45.3	52	43.5	80	42.6	78
2017 Diesel Particulate Matter* ($\mu\text{g}/\text{m}^3$)	1.71	0.407	99	0.279	95-100th	0.295	95-100th
2017 Air Toxics Cancer Risk* (lifetime risk per million)	40	29	98	24	95-100th	29	95-100th
2017 Air Toxics Respiratory HI*	0.63	0.38	99	0.3	95-100th	0.36	95-100th
Traffic Proximity (daily traffic count/distance to road)	5400	760	97	610	98	710	97
Lead Paint (% Pre-1960 Housing)	0.19	0.4	33	0.37	35	0.28	52
Superfund Proximity (site count/km distance)	0.041	0.095	36	0.13	33	0.13	35
RMP Facility Proximity (facility count/km distance)	3	1.2	90	0.83	94	0.75	95
Hazardous Waste Proximity (facility count/km distance)	23	2.7	99	1.8	99	2.2	99
Underground Storage Tanks (count/km ²)	26	8	92	4.8	96	3.9	97
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.18	36	70	9	86	12	87
Socioeconomic Indicators							
Demographic Index	23%	34%	42	28%	54	36%	36
People of Color	30%	39%	49	26%	69	40%	48
Low Income	15%	28%	30	29%	27	31%	25
Unemployment Rate	3%	6%	33	5%	40	5%	35
Linguistically Isolated	3%	4%	62	2%	77	5%	63
Less Than High School Education	1%	11%	9	10%	8	12%	7
Under Age 5	3%	6%	20	6%	19	6%	20
Over Age 64	16%	15%	59	16%	54	16%	58

*Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's 2017 Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: <https://www.epa.gov/haps/air-toxics-data-update>.

For additional information, see: www.epa.gov/environmentaljustice

EJScreen is a screening tool for pre-decisional use only. It can help identify areas that may warrant additional consideration, analysis, or outreach. It does not provide a basis for decision-making, but it may help identify potential areas of EJ concern. Users should keep in mind that screening tools are subject to substantial uncertainty in their demographic and environmental data, particularly when looking at small geographic areas. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJScreen documentation for discussion of these issues before using reports. This screening tool does not provide data on every environmental impact and demographic factor that may be relevant to a particular location. EJScreen outputs should be supplemented with additional information and local knowledge before taking any action to address potential EJ concerns.

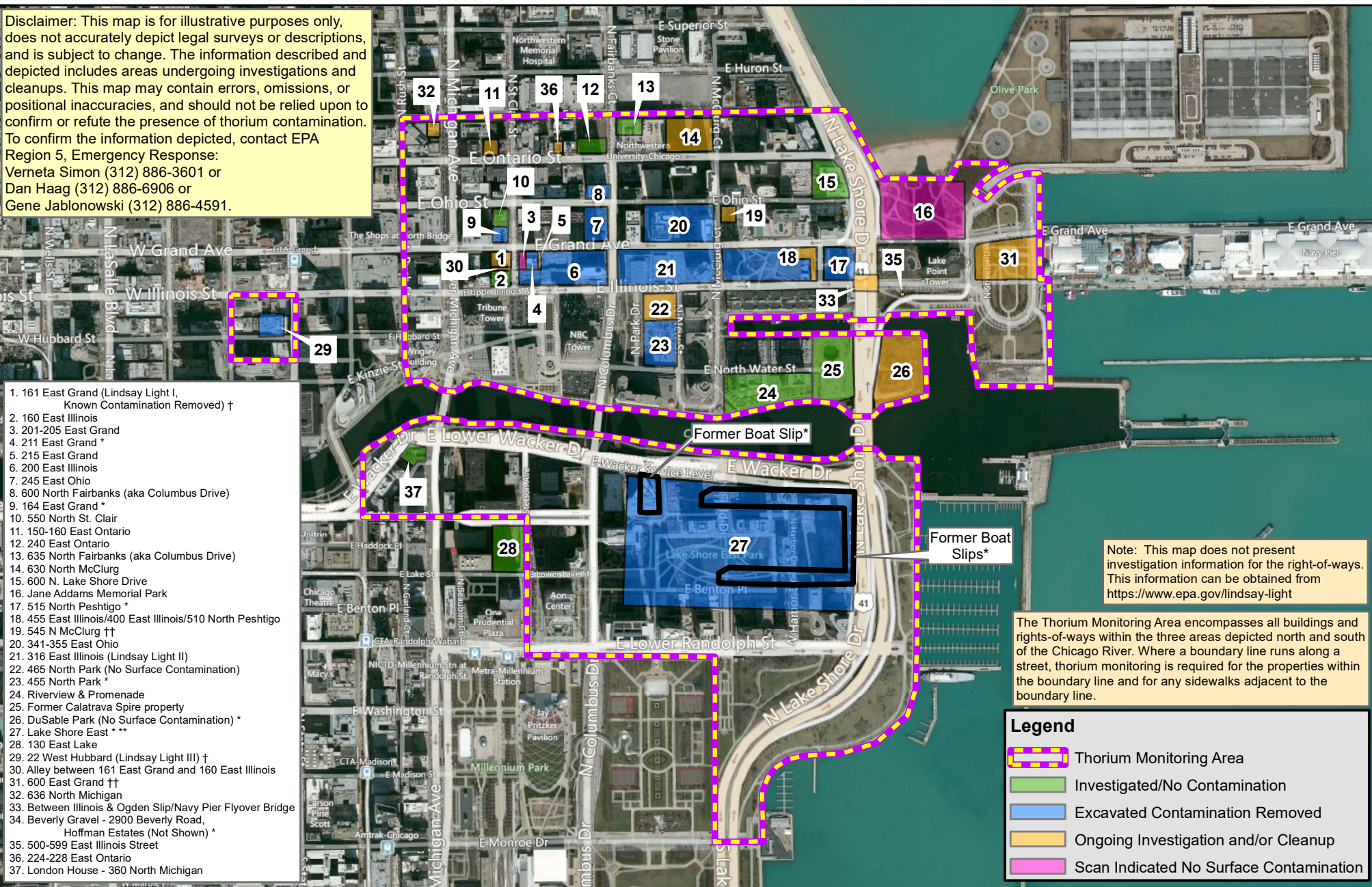
Figure 1

Lindsay Light Streeterville Thorium Monitoring Area

Disclaimer: This map is for illustrative purposes only, does not accurately depict legal surveys or descriptions, and is subject to change. The information described and depicted includes areas undergoing investigations and cleanups. This map may contain errors, omissions, or positional inaccuracies, and should not be relied upon to confirm or refute the presence of thorium contamination. To confirm the information depicted, contact EPA Region 5, Emergency Response: Vernetta Simon (312) 886-3601 or Dan Haag (312) 886-6906 or Gene Jablonowski (312) 886-4591.

1. 161 East Grand (Lindsay Light I, Known Contamination Removed) †
2. 160 East Illinois
3. 201-205 East Grand
4. 211 East Grand *
5. 215 East Grand
6. 200 East Illinois
7. 245 East Ohio
8. 600 North Fairbanks (aka Columbus Drive)
9. 164 East Grand *
10. 550 North St. Clair
11. 150-160 East Ontario
12. 240 East Ontario
13. 635 North Fairbanks (aka Columbus Drive)
14. 630 North McClurg
15. 600 N. Lake Shore Drive
16. Jane Addams Memorial Park
17. 515 North Peshtigo *
18. 455 East Illinois/400 East Illinois/510 North Peshtigo
19. 545 N McClurg ††
20. 341-355 East Ohio
21. 316 East Illinois (Lindsay Light II)
22. 465 North Park (No Surface Contamination)
23. 455 North Park *
24. Riverview & Promenade
25. Former Calatrava Spire property
26. DuSable Park (No Surface Contamination) *
27. Lake Shore East ***
28. 130 East Lake
29. 22 West Hubbard (Lindsay Light III) †
30. Alley between 161 East Grand and 160 East Illinois
31. 600 East Grand ††
32. 636 North Michigan
33. Between Illinois & Ogden Slip/Navy Pier Flyover Bridge
34. Beverly Gravel - 2900 Beverly Road, Hoffman Estates (Not Shown) *
35. 500-599 East Illinois Street
36. 224-228 East Ontario
37. London House - 360 North Michigan

*Deed restriction required due to uninvestigated or known contamination areas.
 **All surface contamination removed. Multiple properties within area have been cleaned up.
 †Demolition monitoring required.
 ††Thorium and Asbestos contamination present.

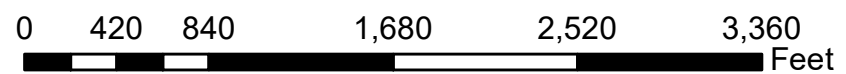


Note: This map does not present investigation information for the right-of-ways. This information can be obtained from <https://www.epa.gov/lindsay-light>

The Thorium Monitoring Area encompasses all buildings and rights-of-ways within the three areas depicted north and south of the Chicago River. Where a boundary line runs along a street, thorium monitoring is required for the properties within the boundary line and for any sidewalks adjacent to the boundary line.

Legend

- Thorium Monitoring Area
- Investigated/No Contamination
- Excavated Contamination Removed
- Ongoing Investigation and/or Cleanup
- Scan Indicated No Surface Contamination



July 1, 2016



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