# INTERGOVERNMENTAL AGREEMENT BETWEEN THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY AND THE CITY OF CHICAGO REGARDING PROCEDURES FOR THE REUSE OF SOIL AND RUBBLE WITHIN THE CITY OF CHICAGO BY THE CITY OF CHICAGO

This intergovernmental agreement (**"Agreement"**) is entered into by and between the Illinois Environmental Protection Agency (**"IEPA"**) and the City of Chicago (**"City"**) for the purpose of facilitating, within the City of Chicago, the reuse of soil and rubble excavated within the City of Chicago by the City.

## RECITALS:

WHEREAS, Article VIII, Section 10 of the Constitution of the State of Illinois and the Intergovernmental Cooperation Act [5 ILCS 220] authorizes and encourages intergovernmental cooperation;

WHEREAS, the City is seeking to facilitate the reuse of certain soil and rubble excavated from one site within the City by the City or another unit of local government, and reused at another site within the City by the City or another unit of local government, in order to prevent unnecessary atmospheric emissions, reuse such soil and rubble, preserve limited landfill capacity, and lessen the impact and costs associated with the transportation and disposal of such soil and rubble;

WHEREAS, Section 11-8-390 of the Municipal Code of Chicago, approved by the IEPA for use as an institutional control under TACO (as defined below), prohibits the installation of potable water supply wells within the City, except for wells installed by the City or by other units of local government pursuant to an intergovernmental agreement with the City;

WHEREAS, the City has investigated potential potable water supply wells and has identified 41 wells within the City and 2 wells within 200 feet of the City (other than any wells installed by the City or by other units of local government under intergovernmental agreement(s) with the City) that are currently in operation from which the City shall maintain a setback zone of 1,000 feet for the reuse of soil and rubble; and

WHEREAS, the City, as a Remedial Applicant under the IEPA's Site Remediation Program (**"SRP"**), has routinely used soil excavated within the City of Chicago as engineered barriers under 35 Ill. Adm. Code 742 (**"TACO"**) at sites being remediated under the SRP, and as general fill beneath such engineered barriers;

NOW, THEREFORE, the IEPA and the City hereby agree as follows:

## AGREEMENT:

SECTION 1. Incorporation of Recitals

The foregoing recitals are incorporated into this Agreement by reference as if set forth fully herein.

SECTION 2. Definitions

For the purposes of this Agreement:

The term **"hazardous substance"** means a hazardous substance as defined in Section 3.215 of the Illinois Environmental Protection Act [415 ILCS 5/3.215].

The term **"public roadway right-of-way"** means a highway as defined in Section 2-202 of the Illinois Highway Code [605 ILCS 5/2-202].

The term **"soil"** means unconsolidated mineral or organic matter on or below the surface of the earth that has been subjected to and shows effects of genetic and environmental factors of parent material, climate (including water and temperature effects), microorganisms, and topography, all acting over time and producing a product that differs from the material from which it is derived in many physical, chemical, biological, and morphological properties and characteristics. **"Soil"** includes naturally occurring geologic material such as sand, gravel, rocks, stones, and boulders. **"Soil"** does not include material generated by human activity, such as foundry sand, slag, fly ash, coke, coal combustion by-product, and other types of waste.

The term **"rubble"** means concrete and concrete products, reclaimed asphalt pavement, bricks, rocks, gravel, and stone, whether mixed together or separated, generated as a result of the construction, maintenance, repair, or destruction of structures, roadways, sidewalks, or utilities. **"Rubble"** does not include material that has protruding metal bars.

SECTION 3. Applicability

This Agreement applies to soil and rubble, whether separated or mixed together, that is: (i) excavated at one site within the City by the City or by another unit of local government as provided in Section 8 of this Agreement, and (ii) reused at a different site within the City by the City or another unit of local government as provided in Section 8 of this Agreement. Soil and rubble reused in accordance with this Agreement are not considered discarded material.

SECTION 4. Reuse of Rubble

A. Rubble must be properly disposed of as waste if such rubble: (i) has paint, asbestos, or other contaminants adhered to its surface, or (ii) otherwise exhibits signs of contamination based on visual and olfactory examinations; provided, however, that rubble reused under this Agreement may have paint adhered to its surface if the fraction of rubble having paint adhered to its surface is no more than one percent (1%) of the total rubble intended for reuse from a given job, based on the post-grinding surface area or post-demolition surface area, as reasonably estimated by the City's project manager or his or her designee.

B. If rubble: (i) does not have paint, asbestos, or other contaminants adhered to its surface, other than paint as allowed under Section 4(A) above, and (ii) does not

otherwise exhibit signs of contamination based on visual and olfactory examinations; then such rubble may be reused by the City as follows:

1. At SRP sites, as approved by the IEPA under the SRP;

2. On property owned by the City or within a public roadway right-of-way, as below-grade fill if such rubble is: (i) reused outside of a 1,000 foot setback zone of potable water supply wells, and (ii) covered by a road, a structure, or sufficient soil to support vegetation;

3. On property owned by the City or within a public roadway right-of-way, above-grade to construct a man made functional structure that: (i) does not exceed a grade of two to one, unless such structure is buttressed by a retaining wall, and (ii) is covered by a road, a structure, or sufficient soil to support vegetation.

C. Soil that is mixed with rubble, except for de minimis amounts of soil, is subject to Section 5 of this Agreement.

SECTION 5. Reuse of Soil

A. Soil excavated from a public roadway right-of-way may be reused as below-grade fill within a public roadway right-of-way if such soil is: (i) reused outside of a 1,000 foot setback zone of potable water supply wells, and (ii) covered by a road, a structure, or sufficient soil to support vegetation.

B. Except for soil subject to Section 5(A) above, the following procedures shall be used to determine whether soil is acceptable for reuse under this Agreement:

1. Representative Sampling. The City shall analyze representative samples of the soil for the parameters listed in Appendix A. Soil may be sampled either in-situ or ex-situ. In-situ samples shall be collected at a frequency of no less than one sample for each 1,000 cubic yards, or fraction thereof, of soil or mixtures of soil and rubble that will be reused under this Agreement. Ex-situ samples shall be collected at a frequency of no less than one sample for each 750 cubic yards, or fraction thereof, of soil or mixtures of soil and rubble that will be reused under this Agreement. The following minimum sampling requirements shall also apply:

a. A minimum of one sample shall be collected from each site; and

b. A minimum of one sample shall be collected from each significantly different soil type encountered during excavation.

2. Additional Sampling. In addition to the sampling required under Section 5(B)(1) above, the City shall also analyze representative samples of soil that: (i) exhibits signs of contamination based on visual and olfactory examinations, or (ii) is likely, in the opinion of an environmental engineer, environmental scientist, civil engineer, geologist, or other qualified professional, to be contaminated with one

or more hazardous substances based on field conditions or historical use of the site and surrounding area. The samples shall be analyzed for the parameters listed in Appendix A. The soil may be sampled either in-situ or ex-situ. In-situ samples shall be collected at a frequency of no less than one sample for each 1,000 cubic yards, or fraction thereof, of soil that meets the criteria of (i) or (ii) of this subsection. Ex-situ samples shall be collected at a frequency of no less than one sample for each 750 cubic yards, or fraction thereof, of soil that meets the criteria of (i) or (ii) of this subsection.

3. Laboratory Analysis. Laboratory analysis shall be conducted by an accredited laboratory in accordance with the requirements of 35 Ill. Adm. Code 740 and 35 Ill. Adm. Code 186.

C. Soil that has been evaluated in accordance with Section 5(B) above may be reused by the City as follows:

1. Soil that does not exceed the Level 1 soil values in Appendix A may be reused:

a. At SRP sites, as approved by the IEPA under the SRP;

b. At non-SRP site property owned by the City; or-

c. Within a public roadway right-of-way.

Such reuse may include, but is not limited to, the construction of engineered barriers. Soil reused below grade must be reused outside of a 1,000 foot setback zone of potable water supply wells.

2. Soil for reuse that exceeds the Level 1 soil values in Appendix A but does not exceed the Level 2 soil values in Appendix A may be reused:

a. At SRP sites, as approved by the IEPA under the SRP. Soil reused below grade must be reused outside of a 1,000 foot setback zone of potable water supply wells;

b. On property owned by the City or within a public roadway right-of-way, as below-grade fill if such below grade fill is: (i) reused outside of a 1,000 foot setback zone of potable water supply wells, and (ii) covered by a road, a structure, or sufficient soil to support vegetation. Sites with a residential use as defined in TACO must have an engineered barrier that meets TACO's requirements for engineered barriers at residential use sites; or

c. On property owned by the City or within a public roadway right-of-way, above grade to construct a manmade functional structure that: (i) does not exceed a grade of two to one, unless the structure is buttressed

by a retaining wall, and (ii) is covered by a road, a structure, or sufficient soil to support vegetation. Sites with a residential use as defined in TACO must have an engineered barrier that meets TACO's requirements for engineered barriers at residential use sites.

3. Prior to the City transferring its ownership of any property where off-site soils that exceed the Level 1 soil values in Appendix A but not the Level 2 soil values in Appendix A have been reused at such property, the City shall enter such property in the SRP and obtain and record a No Further Remediation Letter (**"NFR Letter"**) in accordance with TACO for such property; provided, however, that ownership of such property may be transferred prior to obtaining or recording the NFR Letter if such property is transferred subject to the condition that a comprehensive NFR Letter is obtained and recorded in accordance with TACO prior to such property being occupied.

This subsection 3 does not apply in cases where the City transfers its ownership to the Public Building Commission for property development purposes, and the Public Building Commission subsequently transfers ownership of the property back to the City either: (i) during the development project, or (ii) upon substantial completion of the development project and occupancy of the property.

D. If soil becomes mixed with rubble, this Section 5 applies to the soil fraction of the mixture; provided, however, that this Section 5 does not apply to de minimis amounts of soil mixed with rubble.

SECTION 6. Acceptance Procedures

When soil and rubble being reused under this Agreement (whether separated or mixed together) arrives at the site where it will be reused, the City shall inspect each load to ensure that it is consistent with the reusable soil and rubble leaving the site from which the reusable soil and rubble is being excavated.

For soils tested and delivered to a reuse site in accordance with the procedures stated in this Agreement, in-situ testing of the soils at such reuse site is not required under this Agreement.

SECTION 7. Recordkeeping

For sites where soil or rubble is reused under this Agreement, the City shall maintain the following information and, if requested, make it available to the IEPA:

A. For each load reused at a reuse site, the classification(s) of the soil based on the unified soil classification system (e.g., sand, silt, clay, topsoil) or the type(s) of rubble (e.g., concrete, bricks, reclaimed asphalt pavement);

B. The results of all sampling conducted under this Agreement. The results shall include, but shall not be limited to, copies of the laboratory reports for each sample and a table comparing the sample results to the Level 1 and Level 2 Soil Values in Appendix A;

C. The amount of soil or rubble reused at the site from each excavation location, provided in a tabular format, and copies of load tickets;

D. The addresses of the excavation and reuse sites;

E. The name, business address, and business telephone number of a contact person for each excavation site;

F. Copies of field logs documenting the acceptance procedures required under Section 6 of this Agreement; and

G. Records will be maintained by the City for three (3) years.

SECTION 8. Reuse between the City and Other Units of Local Government

If the IEPA enters into an intergovernmental agreement with a unit of local government other than the City that allows such unit of local government to reuse soil or rubble (whether separated or mixed together) at sites within the City that are owned by such unit of local government, then:

A. Sites Owned by the City. The City may reuse, at sites within the City that are owned by the City, soil and rubble excavated within the City by such unit of local government. The reuse must be in accordance with the terms of this Agreement between the IEPA and the City; and

B. Sites Owned by A Unit of Local Government. Such unit of local government may reuse, at sites within the City that are owned by such unit of local government, soil and rubble excavated within the City by the City. The reuse must be in accordance with the intergovernmental agreement between the IEPA and such unit of local government.

SECTION 9. General

This Agreement shall be effective upon its execution by the Director of the IEPA and the Commissioner of the City's Department of Environment. The effective date of this Agreement (**"Effective Date"**) shall be the latest date noted on the signature page.

This Agreement shall continue in full force and effect without modification for a period of 10 years from its Effective Date, unless subsequently amended by a written agreement executed by the Director of the IEPA and the Commissioner of the City's Department of Environment; provided, however, that this Agreement may be cancelled at any time for good cause upon written notification by the Director of the IEPA or the Commissioner of the City's Department of Environment. Any challenge to a cancellation for cause shall be brought in an alternative dispute resolution forum agreed upon by the IEPA and the City.

This Agreement shall terminate in the event that a material change in governing law renders compliance with this Agreement a violation of such governing law, unless the IEPA and the City amend this Agreement in writing to conform with the new governing law. In addition, upon the Illinois Pollution Control Board's (**"Board's"**) adoption of amendments to the Board's Tiered Approach to Corrective Action Objectives rules (35 Ill. Adm. Code 742), the IEPA and the City shall amend this Agreement in writing as necessary so that this Agreement is not inconsistent with the Board's rules.

If any portion of this Agreement is determined to be void or otherwise unenforceable, all other provisions of this Agreement shall continue in full force and effect.

This Agreement does not prohibit the reuse of soil or rubble as otherwise allowed under state or federal law or regulation.

This Agreement is intended to address only the level of contamination that may be present in soil or rubble that is reused by the City within the City. It is not intended to authorize the City to reuse soil or rubble within public rights-of-way that are not owned or otherwise controlled by the City without the approval of the persons who own or otherwise control the public rights-of-way.

This Agreement does not relieve the City of any responsibility or liability it may have under state or federal law or regulation regarding the activities addressed in this Agreement.

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**ILLINOIS ENVIRONMENTAL PROTECTION AGENCY**

_____

Douglas P. Scott
Director

Date:_____

**CITY OF CHICAGO**

_____

Suzanne Malec McKenna
Commissioner
Department of Environment

Date: _____

## APPENDIX A: Level 1 and Level 2 Soil Values

| CAS No. | Chemical Name | Method | Level 1 Soil Values (mg/kg) | Level 2 Soil Values (mg/kg) | ADL (mg/kg) |
|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | 8270C 8310 | 4,700[a] | 120,000[g,h] | --- |
| 67-64-1 | Acetone | 8260B | 70,000[a] | 100,000[d,i,j] | --- |
| 120-12-7 | Anthracene | 8270C 8310 | 24,000[a] | 610,000[g,h] | --- |
| 71-43-2 | Benzene | 8260B | 0.069[c] | 0.51[j] | --- |
| 56-55-3 | Benzo(*a*)anthracene | 8270C 8310 | 1.1[e] | 7.8[h] | --- |
| 205-99-2 | Benzo(*b*)fluoranthene | 8270C 8310 | 1.5[e] | 7.8[h] | --- |
| 207-08-9 | Benzo(k)fluroanthene | 8270C 8310 | 8.8[a] | 78[h] | --- |
| 50-32-8 | Benzo(a)pyrene | 8270C | 1.3[e] | 1.3[e] | --- |
| 111-44-4 | Bis(2-chloroethyl)ether | 8270C | 0.3[b] | 0.58[i] | 0.66 |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 8270C | 46[a] | 200[g,h] | --- |
| 75-27-4 | Bromodichloromethane (Dichlorobromomethane) | 8260B | 10[a] | 92[h] | --- |
| 75-25-2 | Bromoform | 8260B | 49[c] | 100[i] | --- |
| 71-36-3 | Butanol | 8260B | 7,800[a] | 8,300[j] | --- |
| 78-93-3 | 2 – Butanone (MEK) | 8260B | 730[d] | 730[d] | --- |
| 85-68-7 | Butyl benzyl phthalate | 8270C | 1,000[b] | 1,000[d,i] | --- |
| 86-74-8 | Carbazole | 8270C | 32[a] | 290[h] | NA[f] |
| 75-15-0 | Carbon disulfide | 8260B | 28[d] | 28[d] | --- |
| 56-23-5 | Carbon tetrachloride | 8260B | 0.021[c] | 0.15[j] | --- |
| 106-47-8 | 4-Chloroaniline (*p*-Chloroaniline) | 8270C | 310[a] | 820[g] | --- |

| CAS No. | Chemical Name | Method | Level 1 Soil Values (mg/kg) | Level 2 Soil Values (mg/kg) | ADL (mg/kg) |
|---|---|---|---|---|---|
| 108-90-7 | Chlorobenzene (Monochlorobenzene) | 8260B | 33[d] | 33[d] | --- |
| 124-48-1 | Chlorodibromomethane (Dibromochloromethane) | 8260B | 630[c] | 630[j] | --- |
| 67-66-3 | Chloroform | 8260B | 0.028[c] | 0.2[j] | --- |
| 95-57-8 | 2 - Chlorophenol | 8270C | 390[a] | 1,600[g] | --- |
| 218-01-9 | Chrysene | 8270C 8310 | 88[a] | 780[h] | --- |
| 53-70-3 | Dibenzo(a,h)anthracene | 8270C | 0.2[e] | 0.78[h] | --- |
| 96-12-8 | 1,2 Dibromo-3-chloropropane | 8260B | 0.0073[c] | 0.035[d] | --- |
| 106-93-4 | 1,2 Dibromoethane (Ethylene dibromide) | 8260B | 0.022[c] | 0.11[d] | --- |
| 84-74-2 | Di-n-butyl phthalate | 8270C | 2,600[b] | 2,600[d,i] | --- |
| 95-50-1 | 1,2-Dichlorobenzene (o – Dichlorobenzene) | 8270C | 200[c] | 200[j] | --- |
| 106-46-7 | 1,4-Dichlorobenzene (p – Dichlorobenzene) | 8270C | 130[c,j] | 130[c,j] | --- |
| 91-94-1 | 3,3'-Dichlorobenzidine | 8270C | 1.4[a] | 13[h] | 1.3 |
| 75-71-8 | Dichlorodifluoromethane | 8260B | 6.8[c] | 20[d] | --- |
| 75-34-3 | 1,1-Dichloroethane | 8260B | 110[c] | 130[d] | --- |
| 107-06-2 | 1,2-Dichloroethane (Ethylene dichloride) | 8260B | 0.066[c] | 0.48[j] | --- |
| 75-35-4 | 1,1-Dichloroethylene | 8260B | 2.9[d] | 2.9[d] | --- |
| 156-59-2 | *cis*-1,2-Dichloroethylene | 8260B | 700[c] | 700[,j] | --- |
| 156-60-5 | *trans*-1,2-Dichloroethylene | 8260B | 10[c] | 15[d] | --- |
| 78-87-5 | 1,2-Dichloropropane | 8260B | 0.023[c] | 0.17[j] | --- |
| CAS No. | Chemical Name | Method | Level 1 Soil Values (mg/kg) | Level 2 Soil Values (mg/kg) | ADL (mg/kg) |

| | | | | | |
|---|---|---|---|---|---|
| 542-75-6 | 1,3-Dichloropropene (1,3-Dichloropropylene, *cis* + *trans*) | 8260B | 0.061[c] | 0.45[j] | --- |
| 84-66-2 | Diethyl phthalate | 8270C | 2,200[b,d] | 2,200[d,i] | --- |
| 105-67-9 | 2,4-Dimethylphenol | 8270C | 1600[a] | 10,000[d,i] | --- |
| 121-14-2 | 2,4-Dinitrotoluene | 8270C | 0.94[a] | 8.4[h] | --- |
| 606-20-2 | 2,6-Dinitrotoluene | 8270C | 0.94[a] | 8.4[h] | --- |
| 117-84-0 | Di-n-octyl phthalate | 8270C | 16[b,d] | 16[d] | --- |
| 100-41-4 | Ethylbenzene | 8260B | 55[d] | 55[d] | --- |
| 206-44-0 | Fluoranthene | 8270C 8310 | 3,100[a] | 82,000[g,h] | --- |
| 86-73-7 | Fluorene | 8270C 8310 | 3,100[a] | 82,000[g,h] | --- |
| 118-74-1 | Hexachlorobenzene | 8270C | 0.25[c] | 0.25[j] | --- |
| 77-47-4 | Hexachlorocyclopentadiene | 8270C | 5[c] | 8.8[i] | --- |
| 67-72-1 | Hexachloroethane | 8270C | 78[a] | 160[j] | --- |
| 193-39-5 | Indeno(1,2,3-*c,d*)pyrene | 8270C 8310 | 0.88[a] | 7.8[h] | --- |
| 78-59-1 | Isophorone | 8270C | 1,400[d] | 1,400[d] | --- |
| 98-82-8 | Isopropylbenzene (Cumene) | 8260B | 21[c] | 52[d] | --- |
| 74-83-9 | Methyl bromide (Bromomethane) | 8260B | 0.71[c] | 2[d] | --- |
| 1634-04-4 | Methyl tertiary-butyl ether | 8260B | 160[d] | 160[d] | --- |
| 75-09-2 | Methylene chloride (Dichloromethane) | 8260B | 1.4[c] | 10[j] | --- |
| 93-65-2 | 2 - Methylnaphthalene | 8270C | 83[c] | 83[j] | --- |
| 95-48-7 | 2-Methylphenol (*o* – Cresol) | 8270C | 2,900[d] | 2,900[d] | --- |
| CAS No. | Chemical Name | Method | Level 1 Soil Values (mg/kg) | Level 2 Soil Values (mg/kg) | ADL (mg/kg) |
| 91-20-3 | Naphthalene | 8270C 8310 | 0.92[d] | 0.92[d] | --- |

| | | | | | |
|---|---|---|---|---|---|
| 98-95-3 | Nitrobenzene | 8270C | 7.9[d] | 7.9[d] | --- |
| 86-30-6 | *N*-Nitrosodiphenylamine | 8270C | 130[a] | 1,200[h] | --- |
| 621-64-7 | *N*-Nitrosodi-*n*-propylamine | 8270C | 0.11[b] | 0.22[d] | --- |
| 108-95-2 | Phenol | 8270C | 1,100[d] | 1,100[d] | --- |
| 1336-36-3 | Polychlorinated biphenyls (PCBs) | 8082 | 1[a] | 1[g,h] | --- |
| 129-00-0 | Pyrene | 8270C 8310 | 2,400[a] | 61,000[g,h] | --- |
| 100-42-5 | Styrene | 8260B | 230[c] | 230[j] | --- |
| 127-18-4 | Tetrachloroethylene (Perchloroethylene) | 8260B | 0.24[c] | 1.7[j] | --- |
| 108-88-3 | Toluene | 8260B | 200[d] | 200[d] | --- |
| 120-82-1 | 1,2,4-Trichlorobenzene | 8270C | 18[d] | 18[d] | --- |
| 71-55-6 | 1,1,1-Trichloroethane | 8260B | 130[d] | 130[d] | --- |
| 79-00-5 | 1,1,2-Trichloroethane | 8260B | 310[a] | 820[g] | --- |
| 79-01-6 | Trichloroethylene | 8260B | 0.26[c] | 1.9[j] | --- |
| 75-69-4 | Trichlorofluromethane | 8260B | 31[c] | 90[d] | --- |
| 99-35-4 | 1,3,5 Trinitrobenzene | 8270C | 2,400[a] | 6,100[h] | --- |
| 108-05-4 | Vinyl Acetate | 8260B | 10[d] | 10[d] | --- |
| 75-01-4 | Vinyl chloride | 8260B | 0.011[c] | 0.15[j] | --- |
| 1330-20-7 | Xylenes (total) | 8260B | 27[d] | 27[d] | --- |

| CAS No. | Chemical Name | Method | Level 1 Soil Values (mg/kg) | Level 2 Soil Values (mg/kg) | ADL (mg/kg) |
|---|---|---|---|---|---|
| | **Ionizable Organics** | | | | |
| 120-83-2 | 2,4-Dichlorophenol | 8270C | 240[a] | 610[g,h] | --- |
| 51-28-5 | 2,4-Dinitrophenol | 8270C | 160[a] | 4,100[g] | --- |
| 87-86-5 | Pentachlorophenol | 8270C | 2.6[a] | 24[h] | --- |
| 95-95-4 | 2,4,5-Trichlorophenol | 8270C | 7,800[a] | 61,000[g] | --- |
| 88-06-2 | 2,4,6 Trichlorophenol | 8270C | 58[a] | 520[h] | --- |
| | **Inorganics** | | | | |
| 7440-36-0 | Antimony | 6010B/ 6020 | 31[a] | 82[g] | --- |
| 7440-38-2 | Arsenic | 6020/ 7060A/ 7061A/ 7062 | 13[a] | 61[g] | --- |
| 7440-39-3 | Barium | 6010B/ 6020 | 16,000[a] | 140,000[g] | --- |
| 7440-41-7 | Beryllium | 6010B/ 6020 | 160[a] | 410[g] | --- |
| 7440-42-8 | Boron | 6010B/ 6020 | 16,000[a] | 41,000[g] | --- |
| 7440-43-9 | Cadmium | 6010B/ 6020 | 78[a] | 200[g] | --- |
| 7440-47-3 | Chromium, total | 6010B/ 6020 | 230[a] | 420[i] | --- |
| 7440-48-4 | Cobalt | 6010B/ 6020 | 23[a] | 560[i] | --- |
| 7440-50-8 | Copper | 6010B/ 6020 | 3,100[a] | 8,200[g] | --- |
| 57-12-5 | Cyanide (amenable) | 9012A | 1,600[a] | 4,100[g,h] | --- |
| 7782-41-4 | Fluoride | 9056 | 4,700[a] | 12,000[g,h] | --- |
| 7439-92-1 | Lead | 6020/7421 | 400[a] | 700[g] | --- |

| CAS No. | Chemical Name | Method | Level 1 Soil Values (mg/kg) | Level 2 Soil Values (mg/kg) | ADL (mg/kg) |
|---|---|---|---|---|---|
| 7439-95-4 | Magnesium | 6010B | 325,000[a] | 730,000[g] | --- |
| 7439-96-5 | Manganese | 6010B/ 6020 | 1,600[a] | 4,100[g] | --- |
| 7439-97-6 | Mercury | 7470A/ 7471A | 0.072[d,k] | 0.072[d,k] | --- |
| 7440-02-0 | Nickel | 6010B/ 6020 | 1,600[a] | 4,100[g] | --- |
| 14797-73-0 | Perchlorate | 6850/ 6860 | 55[a] | 140[g] | --- |
| 7782-49-2 | Selenium | 7740A/ 7741A/ 7742 | 390[a] | 1,000[g] | --- |
| 7440-22-4 | Silver | 6010B/ 6020 | 390[a] | 1,000[g] | --- |
| 7440-28-0 | Thallium | 6010/7841 | 6.3[a] | 160[g,h] | --- |
| 7440-62-2 | Vanadium | 6010B | 550[a] | 1,400[g] | --- |
| 7440-66-6 | Zinc | 6010B/ 6020 | 24,000[a] | 61,000[g] | --- |

**Notations**

a Value from TACO Appendix B, Table A Tier 1 Soil Remediation Objectives for Residential Property for the soil ingestion exposure route.

b Value from TACO Appendix B, Table A Tier 1 Soil Remediation Objectives for Residential Property for the soil outdoor inhalation exposure route.

c Value from TACO Appendix B, Table G Tier 1 Indoor Inhalation Remediation Objectives for residential properties for the soil indoor inhalation exposure route.

d Value from TACO Appendix B, Table B Tier 1 Soil Remediation Objectives for Industrial/Commercial Property for the soil outdoor inhalation exposure route for construction workers .

e Value from TACO Appendix A, Table H Concentrations of Polynuclear Aromatic Hydrocarbon Chemicals in Background Soils.

f The ADL is less than or equal to the specified remediation objective.

g Value from TACO Appendix B, Table B Tier 1 Soil Remediation Objectives for Industrial/Commercial Property for the soil ingestion exposure route for construction workers.

h Value from TACO Appendix B, Table B Tier 1 Soil Remediation Objectives for Industrial/Commercial Property for the soil ingestion exposure route.

i Value from TACO Appendix B, Table B Tier 1 Soil Remediation Objectives for Industrial/Commercial Property for the soil

outdoor inhalation exposure route.

j Value from TACO Appendix B, Table G Tier 1 Indoor Inhalation Remediation Objectives for industrial/commercial properties for the soil indoor inhalation exposure route.

k Inhalation objective only applies at sites where elemental mercury is a contaminant of concern.

**Field Log**

Date: _____

Field Personnel: _____ Firm: _____

Weather: _____

Time On-Site: _____ Time Off-Site: _____

Contractors Present: _____

Source(s) of Fill:_____

_____

| Trucking Firm | Truck ID | Source | Material Type | Comments: |
|---|---|---|---|---|
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