



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

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313293

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REPLY TO THE ATTENTION OF:

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Stephen H Armstrong  
Ungaretti & Harris LLP  
3500 Three First National Plaza  
Chicago IL 60602-4224

RE: Peoples Gas Sites, Chicago, Illinois

Dear Steve:

Enclosed is your copy of the executed Administrative Order on Consent (AOC) for a Remedial Investigation/Feasibility Study at four Peoples Gas Sites in Chicago, Illinois. Pursuant to Paragraph 106 of the AOC, the AOC is effective upon the signature of the Superfund Division Director.

If you have any questions, please call me at (312) 886-5114. Thank you for your cooperation in this matter.

Sincerely yours,

Peter Felitti

cc: Timothy Prendiville, SR-6J (w/o enclosure)  
Gary King, Deputy Manager  
Division of Land Pollution Control  
Illinois Environmental Protection Agency  
1021 North Grand Avenue East  
Springfield, Illinois 62702

Enclosure

bcc: Docket Analyst, ORC (C-14J)  
Linda Haile (MF-10J)  
Records Center (SMR-7J)  
Denise Gawlilnski, Public Affairs (P-19J) w/out attachments  
Michael T. Chezik, Department of Interior

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5

IN THE MATTER OF:  
Peoples Gas  
Manufactured Gas Plant Sites  
Chicago, Cook County, Illinois

The Peoples Gas Light and  
Coke Company

Respondent

) Docket No. **V-W- '08-C-917**  
)  
) ADMINISTRATIVE SETTLEMENT  
) AGREEMENT AND ORDER ON  
) CONSENT FOR REMEDIAL  
) INVESTIGATIONS AND FEASIBILITY  
) STUDIES  
)  
) Proceeding under Sections 104, 107,  
) and 122 of the Comprehensive  
) Environmental Response, Compensation,  
) and Liability Act, as amended, 42 U.S.C.  
) §§ 9604, 9607 and 9622

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**SETTLEMENT AGREEMENT AND ADMINISTRATIVE ORDER ON CONSENT  
FOR REMEDIAL INVESTIGATIONS AND FEASIBILITY STUDIES  
AT FOUR PEOPLES GAS MGP SITES**

**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 (“U.S. EPA”) and The Peoples Gas Light and Coke Company (“Peoples Gas” or “Respondent”). The Settlement Agreement concerns the preparation and performance of a remedial investigation and feasibility study (“RI/FS”) at four sites located in Cook County, Chicago, Illinois known as the North Shore Avenue Site, the North Branch Site; the South Branch Site; and the Crawford Site, (“Sites”), and the reimbursement for past, interim and future response costs incurred by U.S. EPA in connection with the RI/FS studies.

2. This Settlement Agreement is issued under the authority vested in the President of the United States by Sections 104, 107 and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act, as amended, 42 U.S.C. §§ 9604, 9607 and 9622 (“CERCLA”). This authority was delegated to the Administrator of U.S. EPA on January 23, 1987, by Executive Order 12580, 52 Fed. Reg. 2926 (Jan. 29, 1987), and further delegated to Regional Administrators on May 11, 1994, by U.S. EPA Delegation Nos. 14-14-C and 14-14-D. This authority was further redelegated by the Regional Administrator, U.S. EPA, Region 5 to the Director, Superfund Division, U.S. EPA, Region 5 by U.S. EPA Delegation Nos. 14-14-C and 14-14-D on May 2, 1996.

3. In accordance with Section 104(b)(2) and Section 122(j)(1) of CERCLA, 42 U.S.C. §§ 9604(b)(2) and 9622(j)(1), U.S. EPA notified the Department of the Interior and the Illinois Environmental Protection Agency (“IEPA”) on February 26, 2008, of negotiations with potentially responsible parties regarding the release of hazardous substances that may have resulted in injury to the natural resources under Federal trusteeship. In accordance with Section 121(f)(1)(F), U.S. EPA has notified the State of Illinois (the “State”) on February 26, 2008 of negotiations with potentially responsible parties regarding the implementation of the remedial investigation and feasibility study for the Sites.

4. U.S. EPA and Respondent recognize that this Settlement Agreement has been negotiated in good faith and that the actions undertaken by the 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 fact, conclusions of law and determinations in Sections V and VI 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.

## II. PARTIES BOUND

5. This Settlement Agreement applies to and is binding upon U.S. EPA and upon Respondent and its agents, 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.

6. Respondent shall ensure that its contractors, subcontractors, and representatives receive a copy of this Settlement Agreement and comply with this Settlement Agreement. Respondent shall be responsible for any noncompliance with this Settlement Agreement.

7. The 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 the Respondent to this Settlement Agreement.

## III. STATEMENT OF PURPOSE

8. In entering into this Settlement Agreement, the objectives of U.S. EPA and Respondent are: (a) to determine the nature and extent of contamination and any current or potential threat to the public health, welfare, or the environment posed by the release or threatened release of hazardous substances, pollutants or contaminants at or from the Sites and to collect sufficient data for developing and evaluating effective remedial alternatives by conducting a Remedial Investigation ("RI") as more specifically set forth in the Statement of Work ("SOW") attached as Attachment A to this Settlement Agreement; (b) to identify and evaluate remedial alternatives that protect human health and the environment by preventing, eliminating, reducing or controlling any release or threatened release of hazardous substances, pollutants, or contaminants at or from each Site, by conducting a Feasibility Study ("FS") as more specifically set forth in the SOW in Attachment A to this Settlement Agreement; and (c) to recover response and oversight costs incurred by U.S. EPA with respect to this Settlement Agreement, including past response costs.

9. The Work conducted under this Settlement Agreement is subject to approval by U.S. EPA and shall provide all appropriate and necessary information to assess site conditions and evaluate alternatives to the extent necessary to select a remedy that will be consistent with CERCLA and the National Oil and Hazardous Substances Pollution Contingency Plan, 40 C.F.R. Part 300 ("NCP"). Respondent shall conduct all Work under this Settlement Agreement consistent with CERCLA, the NCP and all applicable U.S. EPA guidance, policies, procedures, and all plans approved by U.S. EPA in accordance with Section X of this Agreement.

10. The Administrative Settlement Agreement and Order on Consent for Engineering Evaluation/Cost Analysis entered into by Respondent and U.S. EPA on June 5, 2007 relative to the Sites ("June 2007 EE/CA AOC") shall be superseded and terminated upon the Effective Date of this Settlement Agreement. Any documents that are required to be submitted under this Settlement Agreement that have been submitted by Respondent pursuant to June 2007 EE/CA

AOC need not be resubmitted after the Effective Date of this Settlement Agreement unless EPA determines that such submittal is inadequate. Upon the Effective Date of this Settlement Agreement and unless superseded or modified by this Settlement Agreement, all approved submittals and established deadlines existing under the June 2007 EE/CA AOC shall become enforceable under this Settlement Agreement.

#### IV. DEFINITIONS

11. Unless otherwise expressly provided herein, terms used in this Settlement Agreement which 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 in the appendices attached hereto and incorporated hereunder, the following definitions shall apply:

a. "ARARs" shall mean all applicable local, state, and federal laws and regulations, and all "applicable requirements" or "relevant and appropriate requirements" as defined at 40 C.F.R. § 300.5 and 42 U.S.C. § 9261(d).

b. "BTEX" shall mean the contaminants benzene, toluene, ethylbenzene, and xylene.

c. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601, *et seq.*

d. "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 holiday, the period shall run until the close of business of the next working day.

e. "Effective Date" shall be the effective date of this Settlement Agreement as provided in Section XXIX.

f. "EPA" or "U.S. EPA" shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.

g. "Engineering Controls" shall mean constructed containment barriers or systems that control one of the following: downward migration, infiltration or seepage of surface runoff or rain; or natural leaching migration of contaminants through the subsurface over time. Examples include caps, engineered bottom barriers, immobilization processes, and vertical barriers.

h. "Future Response Costs" shall mean all costs, including, but not limited to, direct and indirect costs, that the United States incurs in reviewing or developing plans, reports, technical memoranda and other items pursuant to this Settlement Agreement, conducting community relations, providing technical assistance grants to community groups (if any),

verifying the Work, or otherwise implementing, overseeing, or enforcing this Settlement Agreement, including but not limited to, payroll costs, contractor costs (including fees), travel costs, laboratory costs, ATSDR costs, the costs incurred pursuant to Paragraphs 51 and 53 (costs and attorneys fees and any monies paid to secure access, including the amount of just compensation), and Paragraph 37 (emergency response). Future Response Costs shall also include all Interim Costs.

i. "Institutional controls" shall mean non-engineered instruments, such as administrative and/or legal controls, that help to minimize the potential for human exposure to contamination and/or protect the integrity of a remedy by limiting land and/or resource use. Examples of institutional controls include easements and restrictive covenants, zoning restrictions, special building permit requirements, and well drilling prohibitions.

j. "Interest" shall mean interest at the rate specified for interest on investments of the U.S. EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, compounded annually, 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.

k. "Interim Response Costs" shall mean all costs, including direct and indirect costs, (a) paid by the United States in connection with the Sites between June 5, 2007 and the Effective Date, or (b) incurred prior to the Effective Date, but paid after that date.

l. "MGP" shall mean manufactured gas plant.

m. "NCP" or "National Contingency Plan" 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.

n. "PAHs" shall mean polycyclic aromatic hydrocarbons.

o. "Paragraph" shall mean a portion of this Settlement Agreement identified by an Arabic numeral. References to paragraphs in the SOW will be so identified (for example, "SOW paragraph 16").

p. "Parties" shall mean U.S. EPA and Respondent.

q. "Past Costs" shall mean all costs, including, but not limited to, direct and indirect costs, that the U.S. EPA at in or in connection with any and all of the Sites through June 5, 2007.

r. "RCRA" shall mean the Resource Conservation and Recovery Act, also known as the Solid Waste Disposal Act, as amended, 42 U.S.C. §§ 6901, *et seq.*



- s. "Respondent" shall mean The Peoples Gas Light and Coke Company.
- t. "RI/FS Planning Documents" shall mean the Work Plan/Field Sampling Plan, Quality Assurance Project Plan and Health and Safety Plan and other documents referenced in the SOW (Attachment A).
- u. "Section" shall mean a portion of this Settlement Agreement identified by a Roman numeral. References to sections in the SOW will be so identified (for example, "SOW Section V").
- v. "Settlement Agreement" shall mean this Administrative Settlement Agreement and Order on Consent, the SOW, all appendices attached hereto (listed in Section XXVII) and all documents incorporated by reference into this document including without limitation U.S. EPA-approved submissions. U.S. EPA-approved submissions (other than progress reports) are incorporated into and become a part of the Settlement Agreement upon approval by U.S. EPA. In the event of conflict between this Settlement Agreement and any appendix, this Settlement Agreement shall control.
- w. "SVOCs" shall mean semivolatile organic compounds.
- x. "Sites" shall mean the North Shore Avenue Site, the South Branch Site; the North Branch Site; and the Crawford Site. These properties are depicted in Appendix B. At any of the aforementioned properties, the term "Site" shall also be construed to mean nearby areas where hazardous substances, contaminants or pollutants associated with former MGP operations at the Site have come to be located.
- y. "North Branch Site" shall mean and include the Division Street Station Operable Unit located at 1241 West Division Street, Chicago, Illinois; the North Station Operable Unit located in the area bounded by North Crosby, West Division, and West Hobbie Streets and the North Branch Canal, which is part of the Chicago River system in Chicago, Illinois; and the Willow Street/Hawthorne Avenue Station Operable Unit which is located at the intersection of Willow Street and North Kingsbury Street in Chicago, Illinois.
- z. "South Branch Site" shall mean and include the 22<sup>nd</sup> Street Station Upland Operable Unit located at 2200 South Racine Avenue, Chicago, Illinois; the Hough Place Station Upland Operable Unit located at 2500 S. Corbett St., Chicago, Illinois; the Pitney Court Station Upland Operable Unit located at 3052 Pitney Court, Chicago, Illinois; the South Station Upland Operable Unit located near the intersection of Eleanor and Loomis Streets, Chicago, Illinois; the Throop Street Station Upland Operable Unit located at the intersection of South Throop Street, South Eleanor Street, and West 25<sup>th</sup> Street, Chicago, Illinois; and the South Branch River Operable Unit.
- aa. "South Branch Site River Operable Unit" shall mean those areas of the South Branch of the Chicago River adjacent to or near the upland operable units within the South

Branch Site where hazardous substances, contaminants or pollutants associated with former MGP operations at such upland operable units have come to be located.

bb. "Crawford Site" shall mean and include the Crawford Station located at 3500 South Pulaski Road, Chicago, Illinois.

cc. "North Shore Avenue Site" shall mean and include the North Shore Avenue Station located in the Rogers Park Township of Chicago, Illinois.

dd. "State" shall mean the State of Illinois.

ee. "Statement of Work" or "SOW" shall mean the Statement of Work for development of RI/FS documents for the Sites, as set forth in Appendix A to this Settlement Agreement. The Statement of Work is incorporated into this Settlement Agreement and is an enforceable part of this Settlement Agreement as are any modifications made thereto in accordance with this Settlement Agreement.

ff. "TAP" shall mean technical assistance plan.

gg. "VOCs" shall mean volatile organic compounds.

hh. "Waste Material" shall mean (i) any "hazardous substance" under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14); (ii) any pollutant or contaminant under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33); and (iii) any "solid waste" under Section 1004(27) of RCRA, 42 U.S.C. § 6903(27).

ii. "Work" shall mean all activities Respondent is required to perform under this Settlement Agreement, except those required by Section XIV (Retention of Records).

jj. "June 2007 EE/CA AOC" shall mean the Administrative Settlement Agreement and Order on Consent for Engineering Evaluation/Cost Analysis, Docket No. V-W-07-C-809, entered in to between the Respondent and U.S. EPA on June 5, 2007.

## **V. FINDINGS OF FACT**

12. MGPs operated to provide gas from coal or oil. MGPs were constructed with similar facilities and generated similar wastes using defined manufacturing processes. The gas manufacturing and purification processes produced by-products and residues that include tars, sludges, lampblack, light oils, spent oxide wastes, and other hydrocarbon products. These residues contain PAHs, petroleum hydrocarbons, benzene, cyanide, metals and phenols. Residues often occur at the same locations at former MGP sites (e.g., near the former gas holders, tar sumps, and lampblack separators). The wastes contain a number of known and suspected carcinogens and other potentially hazardous chemicals.

13. With regard to the North Branch Site, which includes the North Station Operable Unit; the Division Street Station Operable Unit; and the Willow Street/Hawthorne Avenue Station Operable Unit:

a. The North Station Operable Unit is approximately 8 acres in size and is located in the area bounded by North Crosby, West Division, and West Hobbie Streets and the North Branch Canal, which is part of the Chicago River system in Chicago, Illinois. The North Station Operable Unit also includes adjacent or nearby areas of the North Branch Canal where hazardous substances, contaminants or pollutants associated with former MGP operations at the North Station have come to be located.

b. The North Station consists of three parcels. One of the parcels, adjacent to the North Branch Canal and approximately 1.5 acres in size, is currently owned by La Salle Chestnut LLC. This parcel is currently vacant. Another parcel, approximately 5.5 acres, is currently owned by Commonwealth Edison and contains an electrical substation and associated buildings and towers. The third parcel, north of the LaSalle Chestnut property and less than 1 acre in size, is currently owned by Division Halsted LLC. This property is currently used as a storage yard for construction equipment. Land use in the surrounding area is mixed residential and industrial/commercial.

c. The Chicago Gas Light and Coke Company built a facility on the North Station in 1868 for the production of coal gas. In 1887, production was converted to water gas. The facility was closed in the early 1960s. One of the parcels adjacent to the North Branch Canal, currently owned by LaSalle Chestnut, was used for coal storage.

d. Groundwater samples collected in 2002 contained cyanide, BTEX, and PAHs at concentrations above Illinois Tier 1 screening levels. The direction of shallow groundwater flow appears to be west/southwest towards the canal.

e. The surface soil at the North Station is fill material composed primarily of gravel and sand with smaller amounts of silt, clay, brick, cinders, glass, and wood. Coal tar impacts such as free product, saturated soils, strong odors, and staining have been observed at various locations during site investigations. Metals (including arsenic, chromium, lead, silver, and selenium), BTEX, PAHs, including naphthalene, benzo(a)pyrene, benzo(a)anthracene, benzo(a)fluoranthene, and dibenzo(a,h)anthracene, and other SVOCs were detected in soil samples at concentrations exceeding the Illinois Tier 1 screening levels.

f. A preliminary site investigation was performed on behalf of the Respondent in 1999 and additional investigations were performed in 2001, 2005, and 2006. Additionally, investigations were conducted in the right-of-way around the Commonwealth Edison property in 2001 and 2002. Remediation activities conducted to date on the Commonwealth Edison property have involved limited removal of foundations, a buried tank and piping, and approximately 1,100 cubic yards of impacted soil. Remediation activities have been conducted on the LaSalle Chestnut parcel, one of the parcels of the North Station that is closest to the North Branch Canal. Impacted materials have been excavated to depths of up to 10 feet and disposed of off-site.

g. A notice letter under the RCRA/CERCLA citizen suit provisions regarding the North Station was sent to the Respondent on July 26, 2006. At this time, no action has been filed regarding the North Station.

h. The Division Street Station Operable Unit is located at 1241 West Division Street in Chicago, Illinois. The upland portion of the Division Street Station Operable Unit is approximately 15 acres in size and is bounded to the north by West Division Street, to the south by West Cortez Street, to the west by the Union Pacific Railroad, and to the east and northeast by the North Branch of the Chicago River. The Division Street Station Operable Unit also includes adjacent or nearby areas of the North Branch of the Chicago River where hazardous substances, contaminants or pollutants associated with former MGP operations at the Division Street Station have come to be located.

i. The portion of the Division Street Station east of Elston Avenue, adjacent to the North Branch of the Chicago River, is now owned by the City of Chicago, Mariners Club, Inc., and Vic Elston LLC. The portion of the Division Street Station west of Elston Avenue is currently in use by Respondent as a utility service center.

j. The Division Street Station was constructed in 1883 as a gas production and storage facility. Gas production at the plant ended before the on-site structures were dismantled and removed in 1962.

k. Chemicals detected in groundwater samples collected during investigations at the Division Street Station include VOCs (primarily BTEX), SVOCs (primarily PAHs), metals (including arsenic and barium), and cyanide. The general direction of groundwater flow at the Division Street Station is east toward the North Branch of the Chicago River.

l. The uppermost layer of soil at the Division Street Station is miscellaneous fill material composed of fine sand to silty clay with cinders, brick, and other non-native material. Impacted soils were found as early as 1979 when excavation for an addition to the maintenance building led to the discovery of blackish clay soil with an observed inflow of oil into the excavation area. Later, stained soils with strong odors and heavy oil sheens were observed during site investigations. Samples collected in March 2002 from soil borings and a test trench showed evidence of free phase coal tar product and oily hydrocarbons. The contaminants found in soil samples at levels above screening levels during investigations are primarily PAHs, including benzo(a)pyrene, benzo(a)anthracene, benzo(a)fluoranthene, and dibenzo(a,h)anthracene. Soil samples collected after the recent remediation exceeded the soil ingestion remediation objectives for PAHs, arsenic, and lead. In addition, the soil inhalation remediation objectives were exceeded for benzene and naphthalene.

m. Environmental conditions at the Division Street Station are described in site investigation reports dated 1992, 2002, and 2003. Remediation activities to address impacted materials were conducted in 2005. Areas on site were excavated to at least 3 feet and backfill materials were brought in to replace the excavated materials. After backfilling, an engineered barrier was installed to prevent the further spread of contaminants. Approximately 164,000 tons of excavated material and over 1 million gallons of water associated with the excavation were disposed of as part of the remediation process. Post-remediation sampling data indicates that elevated levels of certain contaminants still exist on site, although barriers are in place to prevent direct contact exposures. In addition, impacted material was left in place between the gas holder wall and the railroad tracks where remediation was deemed impractical.

n. A RCRA/CERCLA citizen suit regarding the Division Street Station was filed on October 31, 2006 and is currently pending.

o. The Willow Street/Hawthorne Avenue Station Operable Unit is located at the intersection of Willow Street and North Kingsbury Street in Chicago, Illinois. The upland portion of the Willow Street/Hawthorne Avenue Operable Unit is approximately 8 acres in size and is bounded on the northwest by property owned by Marcey Properties and Wisconsin Street, on the northeast by Marcy Street, on the southeast by Willow Street and property owned by GI North Property, LLC and on the southwest by the North Branch of the Chicago River. The Willow Street/Hawthorne Avenue Operable Unit also includes adjacent or nearby areas of the North Branch of the Chicago River where hazardous substances, contaminants or pollutants associated with former MGP operations at the Willow Street/Hawthorne Avenue Station have come to be located.

p. The Respondent currently owns approximately 0.43 acres of the Willow Street/Hawthorne Avenue Station. The northwestern portion of the site is currently owned by Commonwealth Edison and used as a transformer station and equipment storage yard. The southeastern portion of the Willow Street/Hawthorne Avenue Station is currently owned by Marcey Properties, LLC ("Marcey") and used for retail purposes (Smith and Hawken and Sam's Wines and Spirits). Most of the rest of the Willow Street/Hawthorne Avenue Station (approximately 3.3 acres) is owned by GI North Property, LLC and used as a laydown area for steel. The rest of the Station (approximately 0.6 acres) is part of the property owned by A. Finkl & Sons Company. The Willow Street/Hawthorne Avenue Station is adjacent to the North Branch of the Chicago River.

q. The Ogden Gas Company constructed the original station between 1895 and 1897. A coal gasification plant was operated on-site to produce carbureted water gas. The Respondent began leasing the Willow Street/Hawthorne Avenue Station in 1907, gained control of portions of the Ogden Gas Company in 1913, and acquired the Ogden Gas Company's remaining assets when the Ogden Gas Company dissolved in 1950. Portions of the facility were shut down from 1910 to 1921. Most of the above-ground structures were dismantled in 1938 and the original gas holders were dismantled in 1944. Portions of the Willow Street/Hawthorne Avenue Station were leased or sold to other businesses between 1944 and 1953 and again in 1967. The Respondent constructed a new gas holder (17 million cubic feet) and began distributing natural gas on the Willow Street/Hawthorne Avenue Station in 1953. The new gas holder was closed in 1972. Since 1988, the Willow Street/Hawthorne Avenue Station has been owned and managed by the current owners.

r. Groundwater movement in the shallow glacial aquifer is expected to be westward towards the North Branch of the Chicago River, but groundwater quality data are not available from on-site sampling locations. Evidence of impacts observed during site investigations includes sheens and free product. Groundwater samples collected during site investigation activities contained VOCs, PAHs, PCBs, metals, and cyanide.

s. The surface soil at the Willow Street/Hawthorne Avenue Station is fill material that consists primarily of clay, sand, and gravel with smaller amounts of coal, crushed brick, cinders, and wood chips. Staining and odors were reported in soil borings advanced near and inside the footprint of the former gas holder; staining was observed primarily at depths of 7 to 10 feet. Tar impacts were observed at depths from 4 to 17 feet at one location, and tar-saturated soils have been documented from 12 to 16 feet at another location. Soil samples collected during site investigation activities contained VOCs (mostly BTEX), SVOCs (mostly PAHs), PCBs, cyanide, and metals.

t. Site investigation activities were performed on the Willow Street/Hawthorne Avenue Station in 2002, and an action was performed in 2003 and 2005 with the goal of meeting soil cleanup levels for industrial/commercial use. A small area of PCB-impacted soil was remediated by excavation in April 2004. More comprehensive remedial operations conducted at the site from 2004 to 2006 involved excavation to a maximum depth of 20 feet and off-site disposal of approximately 130,600 tons of impacted material. During this remediation, tar was observed along the sheet pile wall that separates the Station from the river and impacted materials were left in place at the limits of the excavations. Conditions in the river adjacent to the Station were investigated by installing borings at selected locations in 2006. Tar was observed on the augers at one boring location in the river and a tar-like odor was noted at another. Data obtained with a tar-specific green optical screening tool device indicate the presence of coal tar at several locations along the sheet pile wall, generally at depths of 6 to 10 feet below the sediment surface. Laboratory analysis of sediment samples collected at these locations found high levels of PAHs. During excavation, a portion of the 5 million cubic foot gas holder wall was encountered extending out from the northwestern boundary of the Station. An engineered barrier was installed to cover the exposed portion of the gas holder. Conditions on the northwestern parcel, where the majority of the 5 million cubic foot gas holder is located, have not yet been investigated. Part of the southeastern parcel was remediated in 2003 in conjunction with remediation activities on the Station. This remediation involved excavation of soils to a maximum depth of 12 feet and off-site disposal of approximately 2,560 tons of impacted material. Residual tar-impacted materials were left in place at depths from 6 to 12 feet and a plastic liner was installed before backfilling with flowable fill to prevent migration of tar into the remediated area.

u. RCRA/CERCLA citizen suits regarding the Willow Street/Hawthorne Avenue Station were filed on August 18, 2006 and on October 31, 2006 and are currently pending.

v. The North Branch Site has not been proposed to the National Priorities List.

14. With regard to the South Branch Site, which includes the 22<sup>nd</sup> Street Station Upland Operable Unit; the Hough Place Station Upland Operable Unit; the Pitney Court Station Upland Operable Unit; the South Station Upland Operable Unit; the Throop Street Station Upland Operable Unit; and the South Branch River Operable Unit:

a. The 22<sup>nd</sup> Street Station Upland Operable Unit is located at 2200 South Racine Avenue in Chicago, Illinois. The 22<sup>nd</sup> Street Station Upland Operable Unit, which is 7.2 acres in size, is bounded to the west by commercial property, to the north by Cermak Road followed by mixed residential and commercial properties, to the east by an electrical substation owned by Commonwealth Edison, and to the south by the South Branch of the Chicago River.

b. The 22<sup>nd</sup> Street Station is no longer owned by Respondent but is comprised of four parcels, which are currently owned and/or operated by Commonwealth Edison, Throop Realty LLC, Throop Towers, LLC, and Midwest Generation.

c. The 22<sup>nd</sup> Street Station was initially developed by Respondent in 1862 to produce coal gas. The 22<sup>nd</sup> Street Station was modified to produce carbureted water gas and oil gas in 1934. Some of the facilities were retired in 1938, and in 1944 two production sets were modified to produce reformed natural gas.

d. Respondent began leasing portions of the 22<sup>nd</sup> Street Station to Commonwealth Edison in 1931 and sold the last portion of the 22<sup>nd</sup> Street Station to Commonwealth Edison in 1959. The 22<sup>nd</sup> Street Station stopped operating in 1958 and the entire plant was dismantled by 1960.

e. Various VOCs, SVOCs, metals, and cyanide were detected in groundwater samples collected at the 22<sup>nd</sup> Street Station in 2001. The direction of shallow groundwater flow is to the southwest, toward the former Throop's Canal and the South Branch of the Chicago River.

f. The surface soil at the 22<sup>nd</sup> Street Station is fill material composed primarily of gravel and sand with smaller amounts of silt, clay, brick, cinders, glass, and wood. Coal tar, free product, staining, and odors were observed at various locations during site investigations, and sheens were observed in borings installed in the fill in the former Throop's Canal. Metals (including arsenic, chromium, lead, silver, and selenium), BTEX, and a number of PAHs were detected at concentrations exceeding the Illinois Tier 1 screening levels in soil samples collected at the Station.

g. Sediment samples were collected from a location in the South Branch of the Chicago River about 2,000 feet downstream of the 22<sup>nd</sup> Street Station in 2000 as part of a U.S. EPA study of sediment contamination. These samples contained high levels of PAHs, PCBs, oil and grease, and metals with the concentrations of these substances generally increasing with depth.

h. A CERCLA preliminary assessment of the 22<sup>nd</sup> Street Station was conducted by the Illinois EPA in 1988 which recommended further investigation. Site investigations were performed on behalf of Respondent between 2000 and 2002. A Remedial Objectives Report developed for the 22<sup>nd</sup> Street Station during this period recommended removal of impacted material from a number of on-site locations. In April 2006, remediation activities began on a portion of the 22<sup>nd</sup> Street Station. Impacted material in the east gas holder has been excavated and removed to a depth of approximately 20 feet. Impacted material in portions of the former Throop's Canal has been excavated and removed to a depth of approximately 30 feet. Remediation of the 22<sup>nd</sup> Street Station by excavation and off-site disposal of impacted materials is continuing.

i. A RCRA/CERCLA citizen suit regarding the 22<sup>nd</sup> Street Station was filed on October 31, 2006 and is currently pending.

j. The Hough Place Station Upland Operable Unit is located at 2500 S. Corbett St. in Chicago, Illinois. The Hough Place Upland Operable Unit is approximately 4.5 acres and is bounded on the north by the South Branch of the Chicago River, on the south by railroad property, and on the east by a paper storage and distribution facility. The former Hough Place Station and the adjacent property to the west are currently vacant but were formerly occupied by a sailboat storage, sales, and repair facility (Crowley's Yacht Yard).

k. The Hough Place Station is currently owned by Crowley's Yacht Yard.

l. The Hough Place Station was built in about 1885 by the Equitable Gas Light and Fuel Company. In approximately 1892, the facility began producing "Pintsch gas," a relatively high quality gas produced by an oil gas process, for the Pintsch Compressing Company. Production of Pintsch gas appears to have continued into the early 1920s. Respondent acquired the facility in 1897 after the passage of the Gas Consolidation Act of 1897. The Hough Place Station was dismantled in 1934, and all aboveground gas plant structures were

removed. Portions of the property were subsequently leased to other companies, who used the property for storage of building materials and for making asphalt, concrete, or other paving materials through at least 1950. Chicago Title and Trust Company, as trustee, took title to the property in approximately 1953. For some period of time between 1953 and 1978, the J.M. Corbett Company operated an asphalt mixing plant on the property. In 1978 the property was sold to Crowley's Yacht Yard.

m. Water level data suggest that the direction of shallow groundwater flow at the Hough Place Station is primarily toward the former slips to the east and west, with a northern component toward the South Branch of the Chicago River. BTEX, PAHs, metals, and cyanide were detected in groundwater samples collected at the Hough Place Station in 2000.

n. The Hough Place Station is underlain by fill material consisting of silty clay mixed with sand and gravel, cinders, slag, brick fragments, and other assorted debris. Staining and odors have been observed in test pits and soil borings in various locations across the Hough Place Station to depths below the water level. Black, plastic asphalt tar was observed to a depth of two feet in a test pit located in the northwest corner of the Hough Place Station. BTEX, PAHs, metals and cyanide were detected in several surface and subsurface soil samples at the Hough Place Station.

o. Several investigations at the Hough Place Station have been conducted for Respondent in recent years. A site investigation performed in 2000 included completion of test pits and soil borings and installation of shallow monitoring wells. Impacts were observed at various locations on the Hough Place Station at depths below the water level. Soil samples were collected in June 2001 as part of a supplemental site investigation. Several areas where tar was present at depths below the water table were identified. In September and October of 2006, a geotechnical investigation was conducted in order to design excavations necessary to remediate the Hough Place Station. Soil borings advanced beyond the eastern boundary (in the location of the former Hough Slip) of the Hough Place Station indicated that tar was present at depths below the water level in the filled-in slip. Remediation of the Hough Place Station is currently under way; this effort involves excavation of impacted material to depths of up to 24 feet and off-site disposal of the excavated materials.

p. A limited investigation of the river area adjacent to the Hough Place Station was conducted for Respondent in November 2006. Several borings were advanced into river sediments. Impacts in the form of sheens, odor, tar globules, tar-coated or stained material, and traces of tar were observed in some of the borings.

q. A RCRA citizen suit regarding the Hough Place Station was filed on April 12, 2005 and is currently pending.

r. The Pitney Court Station Upland Operable Unit is located at 3052 Pitney Court, at the intersection of Archer Avenue and Pitney Court in Chicago, Illinois. The Pitney Court Station Upland Operable Unit is approximately 4.8 acre in size and is bounded to the northwest by Archer Avenue, to the northeast by Pitney Court and 31<sup>st</sup> Street, to the east by Benson Street, to the south by Chicago Plating, Inc., a chrome plating facility, and to the west by the South Fork of the South Branch of the Chicago River.

s. Respondent owns the Pitney Court Station, which is currently vacant and which will be developed for residential use. The land use in the surrounding area is mixed residential, industrial, and commercial.



t. The Pitney Court Station was formerly used as a production and storage facility for manufactured gas. The Universal Gas Company began gas manufacturing operations at the Station in 1897. Respondent leased the facility from Universal Gas in 1907 and purchased the Universal Gas Company in 1914. Respondent sold the property in 1952 and re-purchased it in July 2005. The property had a number of owners and was used for a variety of purposes between 1952 and 2005.

u. Based on water level measurements, the groundwater flow is westerly toward the South Fork of the South Branch of the Chicago River. An interlocking sheet pile wall is located along the western side of the Pitney Court Station, adjacent to the South Fork. VOCs, SVOCs (including PAHs), metals, and cyanide have been detected in groundwater samples collected during investigations conducted at various times from 1995 through 2002.

v. Three stratigraphic units have been identified at the Pitney Court Station: a fill unit, a sandy silt unit, and a silty clay unit. Visible evidence of impacts, including coal tar, sheen, and/or staining was observed at depths below the groundwater level in several soil borings and test pits during site investigations. Metals (arsenic and lead), benzene, ethylbenzene, toluene, and a number of PAHs were detected at concentrations exceeding Illinois Tier 1 screening levels in soil samples collected at the Pitney Court Station.

w. Sediment samples were collected in the South Fork near the Pitney Court Station for the U.S. Army Corps of Engineers ("USACE") Chicago District in 2004. These samples contained PAHs, other SVOCs, VOCs, PCBs, oil and grease, and metals. An oily sheen was observed in sediments at two locations near the Pitney Court Station. The USACE findings are consistent with results obtained in earlier studies conducted by the Illinois EPA in 1994, the Metropolitan Water Reclamation District in 1995, and the U.S. EPA in 2000.

x. Conditions on the Pitney Court Station have been investigated by a number of parties since 1990. These investigations have reported subsurface impacts, including coal tar, staining, sheens, and odor, at various locations across the Pitney Court Station, in some cases below groundwater levels. An investigation performed in 1990 noted stained soils in conjunction with UST removal activities, and an investigation performed in 1995 concluded that the Pitney Court Station was impacted by past operations on the basis of detections of benzene and PAHs in soil and groundwater. Surface soil staining and a sheen on ponded surface water were noted in 1998, and tar was observed at depths of up to 20 feet below the water levels in the ground and the adjacent river in 2000. Additional site investigations conducted for Respondent from 2002 through 2006 also found tar at varying depths. Site remediation activities began in 2005 and are continuing. These activities generally involve excavation and off-site disposal of MGP-impacted materials. To date, impacted materials, including tar-saturated material, have been encountered and removed at levels above and below the water table from the center of the Pitney Court Station and along the South Fork, directly behind the sheet pile river wall.

y. Several surface sediment samples collected in the South Fork adjacent to the Pitney Court Station had high fluorescence readings, indicating the presence of coal tar impacts. In addition, hollow stem auger sampling of sediments was also conducted. Tar-saturated sediment was observed in several river boring locations, primarily at the sediment/river bottom interface.

z. A RCRA citizen suit regarding the Pitney Court Station was filed on May 13, 2004. The matter was settled with the court retaining jurisdiction over the settlement.

aa. The South Station Upland Operable Unit is located near the intersection of Eleanor and Loomis Streets in Chicago, Illinois. The South Station Upland Operable Unit encompasses approximately 8.3 acres, with approximately half of the site owned by Respondent (two parcels comprising 4 acres) and half owned by the City of Chicago (two parcels comprising 4.3 acres). The South Station Upland Operable Unit is bounded to the northwest by the South Branch of the Chicago River, to the southeast by Eleanor Street, and to the northeast by Loomis Street.

bb. Parcels A and B are owned by Respondent and occupied by a storage warehouse constructed in the early 1970s. Parcels C and D, owned by the City of Chicago, are currently vacant but will be developed into a City park. Land use near the South Station is predominantly industrial and residential, with some residences located across Eleanor Street.

cc. Respondent built the plant and storage facility in 1874. The South Station was used for gas manufacturing operations from 1874 to 1941, when plant operations shifted to the use of natural gas. The plant produced gas by various manufacturing processes over the years: coal gas (1874–1890); carbureted water gas (1890–1934); and oil gas (1934–1941). The plant was used as a reformed natural gas facility from 1941 to 1961. The plant was retired in 1961 and the structures were dismantled during the mid to late 1960s. A portion of the South Station was later utilized by a wood pallet manufacturing facility.

dd. The apparent direction of shallow groundwater flow is northwest, toward the South Branch of the Chicago River. Groundwater samples collected in 1998 and 1999 contained cyanide, metals, VOCs (including TCE, benzene, and naphthalene), and SVOCs (including PAHs). Most of these chemicals were also detected in groundwater samples collected in 2004 after much of the recent remediation had been completed.

ee. Surface soils at the South Station consist of silts and clays, which are underlain by glacial drift deposits extending to the bedrock layer. Subsurface investigations were performed during Station investigation activities from 1999 through 2004. Subsurface impacts including free product, coal tar, sheens, strong odors, and staining were observed in soil borings during sampling efforts. Impacted soil was encountered to depths greater than 20 feet below ground surface beneath parts of the South Station. Metals, cyanide, PAHs and other SVOCs, and VOCs were detected in soil samples taken in 1999. Chemicals found at concentrations exceeding the Illinois Tier 1 screening levels include benzene, ethylbenzene, naphthalene, styrene, toluene, TCE, xylenes, and chromium. Because soils were not excavated beneath the majority of the building footprint and in other areas of the South Station, soils with notable coal tar impacts remain in place.

ff. The South Station is adjacent to the South Branch of the Chicago River. Sediment samples were collected from a location in the South Branch adjacent to the South Station in 2000 as part of U.S. EPA's study of sediment contamination. These samples contained high levels of PAHs, PCBs, oil and grease, and metals; the concentrations of these substances generally increased with depth.

gg. Conditions at the South Station were investigated for Respondent from 1999 through 2004, and remedial actions were performed from 2001 through 2006. Remediation activities involved removal of contents from underground tanks, demolition and removal of buried structures, excavation of soil to a maximum depth of approximately 30 feet on land, and dredging of impacted sediments from the river. Dredging was necessary to address tar-impacted sediments located near a tar seep and a monitoring well that contained free product. A post-

remediation investigation of sediments in the river adjacent to the South Station found evidence of residual tar impacts.

hh. A RCRA citizen suit regarding the South Station was filed on April 12, 2005 and is currently pending.

ii. The Throop Street Station Upland Operable Unit is located at the intersection of South Throop Street, South Eleanor Street, and West 25th Street in Chicago, Illinois. The Throop Street Station Upland Operable Unit encompasses approximately 15.5 acres and is bounded to the north by the South Branch of the Chicago River, to the south by South Eleanor Street and West 25<sup>th</sup> Street, to the west by Loomis Street, and to the east by Commonwealth Edison. Land use near the Throop Street Station is predominantly industrial and residential.

jj. The Throop Street Station is currently owned by Brandenburg Industrial Service Company and is used as a storage yard for equipment and debris.

kk. The Throop Street Station was constructed in 1892 by Consumers Gas Company as a gas holder facility. Respondent acquired the Throop Street Station in 1897. The Throop Street Station operated as a manufactured gas storage and distribution facility. In 1944, a mixing plant was constructed to mix manufactured and natural gas on-site. The Throop Street Station was closed in 1972 and sold to Brandenburg in 1981. All above ground structures associated with the gas holder facility have been demolished.

ll. Two soil borings were installed in the southwest corner of the Throop Street Station on behalf of Respondent. Black, stained soils exhibiting strong odors were observed beneath the water table and a sheen was observed on the groundwater surface. The general direction of groundwater flow at the Throop Street Station is expected to be north toward the South Branch of the Chicago River. Site-specific groundwater quality data is not available at this time, but contaminants likely to be present in groundwater at the Throop Street Station include BTEX, PAHs, metals, and cyanide.

mm. Limited site investigation activities were conducted in the southwest corner of the Throop Street Station in March 2001 and in June 2002. No subsurface investigation activities have been conducted at the remainder of the Throop Street Station. In the southwest corner of the Throop Street Station, there was the presence of blue-green soils, strong odors, and elevated organic vapor readings in soils. The investigation also revealed the presence of black staining, odors, elevated organic vapor readings, and petroleum sheen on the groundwater surface. Analytical results for soil samples collected in the southwest corner of the Throop Street Station indicate the presence of elevated concentrations of PAHs. No other soil sampling is known to have been conducted at the Throop Street Station and no additional information regarding site-specific soil characteristics is known at this time. Other contaminants likely to be present in the Throop Street Station soils include BTEX, PAHs, metals, and cyanide.

nn. The Throop Street Station is adjacent to the South Branch of the Chicago River. Sediment samples were collected from a location in the South Branch approximately 750 feet downstream of the Throop Street Station in 2000 as part of U.S. EPA's study of sediment contamination. The conditions in the sediments adjacent to the Throop Street Station were investigated on behalf of Respondent in 2006. Tar-like impacts were observed in a number of the sediment borings.

oo. The on-site environmental investigations performed to date have been limited to a few borings in the southwest corner of the Throop Street Station in 2001-2002.

Conditions in the river adjacent to the Throop Street Station were investigated by installing borings at selected locations in 2006. Evidence of tar impacts such as tar globules, sheen, and odor was observed at a number of sediment boring locations. Data obtained with a tar-specific green optical screening tool device indicate the presence of coal tar at several locations, and laboratory analysis of sediment samples found high levels of PAHs.

pp. A RCRA citizen suit regarding the Throop Street Station was filed on April 12, 2005 and is currently pending.

qq. The South Branch Site River Operable Unit consists of those areas of the South Branch of the Chicago River adjacent to or near the upland operable units within the South Branch Site where hazardous substances, contaminants or pollutants associated with former MGP operations at such upland operable units have come to be located. To date, limited investigation activities in areas adjacent to the upland operable units have detected the presence of tar and tarry residuals in river sediments.

rr. The South Branch Site has not been proposed to the National Priorities List.

15. With regard to the Crawford Site which includes the Crawford Station:

a. the Crawford Site is located at 3500 South Pulaski Road in Chicago, Illinois. The Crawford Site is bounded on the south by the Chicago Sanitary and Ship Canal (the "Canal"), on the north by the Chicago and Illinois Western Railroad, on the west by the Chicago and Western Indiana Belt Line Railroad, and to the east by Pulaski Road. The Crawford Site also includes adjacent or nearby areas of the Canal where hazardous substances, contaminants or pollutants associated with former MGP operations at the Crawford Station have come to be located.

b. The Crawford Station is currently divided into 21 parcels. Parcels A, B, L, and O are currently owned by Peoples Gas. Parcel O is currently used by Peoples Gas as a natural gas regulating and metering facility. Various commercial/industrial buildings and uncovered storage areas exist on the remainder of the Crawford Station. The total area of the Peoples Gas parcels is approximately 107 acres. Peoples Gas also leases a portion of Parcel S, which is adjacent to the Canal, from the Metropolitan Water Reclamation District of Greater Chicago. The remaining parcels are owned and/or operated by Commonwealth Edison, Teds Truck Body, Stanley E. Skorusa, EJS Building Corp., LaGrou Cold Storage, Kostner/Chicago LLC, Illinois Central Railroad, First American HFC, Wonderview Corp., UIR Campus & Tower, and RLR Investments.

c. In 1921, the Koppers Company of Pittsburgh and Peoples Gas entered into an agreement whereby Koppers built, financed, and operated a by-product coke plant at the Crawford Station. Peoples Gas bought the gas and coke manufactured at the plant for distribution to consumers. Peoples Gas then acquired the facility in 1928. By the late 1930s, the Crawford Station produced three types of gas: coke oven gas, carbureted water gas, and reformed natural gas. During the 1930s, several additions and modifications were made to the plant, including construction of a light oil refining plant, addition of liquefied petroleum ("LP") gas peak shaving facilities, and conversion of five of the nine water gas sets to produce reformed natural gas and later oil gas. Production was halted temporarily between 1958 and 1962 and permanently after 1963. The Crawford Station was retired in 1965. Dismantling of the Crawford Station began in 1956 starting with portions of the coke oven plant. The remainder of the Crawford Station, including the two 10 million cubic feet gas holders, was dismantled in

1965. Peoples Gas sold 146 acres of the Crawford Station property to First American Realty Company in 1966.

d. VOCs, PAHs, metals, and cyanide were detected in groundwater samples collected in various locations at the Crawford Station. Impacts were observed below the water table at depths of up to 26 feet in various borings advanced in Parcels A, B, L, and O. These impacts include staining, odors, tar saturated soil, and tar in fractures.

e. Based on results from investigations performed to date, the thickness of the fill layer ranges from 0 to 11 feet across the Crawford Station. Evidence of impacts, including tar, tar in fractures, tar-coated sand, naphthalene-type odor, and sheen, have been observed at depths of up to 26 feet at various locations at the Crawford Station. VOCs, PAHs, metals, and cyanide were detected in soil samples collected in various locations at the Site.

f. A site investigation on Parcel O was undertaken in 2001; on Parcels A and B in 2001 and 2005; and on Parcel L in 2002. Tar impacts were observed on all of these parcels. Approximately 45 cubic yards of impacted soils were removed and disposed of off-site in conjunction with gas pipeline improvements on Parcel O. An investigation of Parcel S began in January 2007.

g. The Crawford Site has not been proposed to the National Priorities List.

16. With regard to the North Shore Avenue Site:

a. The Site is located in the Rogers Park Township of Chicago, Cook County, Illinois. The Site occupies two parcels of land totaling approximately 7.2 acres. The Site is bounded to the north by recently-constructed single family homes, to the west by North Kedzie Avenue, to the south by residential properties, and to the east by property owned by the Chicago Board of Education. The North Shore Channel of the Chicago River system is approximately 350 feet west of the western property line. The North Shore Avenue Site also includes adjacent areas of the North Shore Channel where hazardous substances, contaminants or pollutants associated with former MGP operations at the North Shore Avenue Station have come to be located.

b. The Main Parcel, which encompasses approximately 5.4 acres, is owned by Respondent and is currently used as a natural gas regulator station and as a vehicle maintenance shop and fueling facility for the north district of Chicago. The Pond Parcel, which is owned by Regent Park City Homes and which is currently being developed as residential property, is approximately 1.8 acres in size.

c. Respondent built the Site and began operating it as a storage facility for manufactured gas in 1926. The gas holder was taken out of service in 1956 for inspection and repairs. The gas holder sealant was changed from tar to oil at this time, and nearly 200,000 gallons of tar were removed from the Site. The gas holder and most of the tar tanks associated with it were removed in 1971. The main gas storage facility buildings are currently used for the sub-shop operations.

d. The direction of shallow groundwater flow in the underlying glacial aquifer is expected to be westward toward the North Shore Channel. Chemicals detected in groundwater samples collected at the Site include barium, cyanide, and PAHs (naphthalene and fluorene). Deeper groundwater conditions at the Site have not been investigated.

e. The surface soil at the Site is fill material that consists primarily of silt and sand with smaller amounts of clay, gravel, and brick. Tar staining was observed in soils below

the groundwater level in soil borings installed along the western border of the Site. During subsequent sampling, PAHs were detected in the tar and soil. Metals, cyanide, VOCs (including benzene and chlorinated solvent compounds), and SVOCs (primarily PAHs) were detected in soil samples collected during investigations at the Site. Soils at the Site were remediated in 1997 and 2001.

f. Soils in the northern portion of the Site were removed to address chlorinated solvent impacts from releases on the adjoining property in 1997. Some of the solvent-impacted soils left in place had levels of contamination that exceed the Illinois residential standards, so land use in this portion of the Site is restricted. Further site investigations led to the excavation of approximately 26,000 tons of soils impacted with lead and PAHs in 2001 and 2002. The tar-stained soils observed below the groundwater level in soil borings installed along the western border of the Site were not removed during this remediation effort, which was completed under the Illinois Site Remediation Program.

g. A RCRA/CERCLA citizen suit regarding this Site was filed on October 31, 2006 and is currently pending.

h. The North Shore Avenue Site has not been proposed to the National Priorities List.

## **VI. CONCLUSIONS OF LAW AND DETERMINATIONS**

Based on the Findings of Fact set forth above, and the Administrative Record in this matter, U.S. EPA has determined that:

17. Each of the Sites is a "facility" as defined in Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

18. The wastes and constituents thereof, including PAHs, found at each Site, as identified in the Findings of Fact above, are "hazardous substances" as defined in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14), or constitute "any pollutant or contaminant" that may present an imminent and substantial danger to public health or welfare under Section 104(a)(1) of CERCLA.

19. The conditions described in the Findings of Fact above constitute an actual and/or threatened "release" of a hazardous substance from each of the facilities as defined in Section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

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

21. The Respondent is a responsible party under Sections 104, 107 and 122 of CERCLA, 42 U.S.C. §§ 9604, 9607 and 9622.

a. Respondent is the “owner” and/or “operator” of all or part of the Sites, 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) .

b. Respondent was the “owner” and/or “operator” of the Sites at the time of disposal of hazardous substances at the facility, as defined by Section 101(20) of CERCLA, 42 U.S.C. § 9601(20), and within the meaning of Section 107(a)(2) of CERCLA, 42 U.S.C. § 9607(a)(2).

22. The actions required by this Settlement Agreement are necessary to protect the public health, welfare or the environment, are in the public interest, 42 U.S.C. § 9622(a), are consistent with CERCLA and the NCP, 42 U.S.C. §§ 9604(a)(1), 9622(a), and will expedite effective remedial action and minimize litigation, 42 U.S.C. § 9622(a).

23. U.S. EPA has determined that the Respondent is qualified to conduct the RI/FS for each Site within the meaning of Section 104(a) of CERCLA, 42 U.S.C. § 9604(a), and will carry out the Work properly and promptly, in accordance with Sections 104(a) and 122(a) of CERCLA, 42 U.S.C. §§ 9604(a) and 9622(a), if Respondent complies with the terms of this Settlement Agreement.

## **VII. SETTLEMENT AGREEMENT AND ORDER**

24. Based upon the foregoing Findings of Fact, Conclusions of Law, Determinations, and the Administrative Record for each of the Sites, it is hereby Ordered and Agreed that the Respondent shall comply with all provisions of this Settlement Agreement, including, but not limited to, all attachments to this Settlement Agreement and all documents incorporated by reference into this Settlement Agreement.

## **VIII. DESIGNATION OF CONTRACTORS AND PROJECT COORDINATORS**

### **25. Selection of Contractors, Personnel.**

a. All Work performed under this Settlement Agreement shall be under the direction and supervision of qualified personnel. Within 30 days of the Effective Date of this Settlement Agreement, and before the Work outlined below begins, Respondent shall notify U.S. EPA in writing of the names, titles, and qualifications of the personnel, including contractors, subcontractors, consultants and laboratories to be used in carrying out such Work. With respect to any proposed contractor, Respondent shall demonstrate that the proposed contractor has a quality system which complies with ANSI/ASQC E4-1994, “Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs,” (American National Standard, January 5, 1995), 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, March

2001) or equivalent documentation as determined by U.S. EPA. The qualifications of the persons undertaking the Work for Respondent shall be subject to U.S. EPA's review, for verification that such persons meet minimum technical background and experience requirements. If Respondent fails to demonstrate to U.S. EPA's satisfaction that Respondent is qualified to perform properly and promptly the actions set forth in this Settlement Agreement, U.S. EPA may take over the work required by this Settlement Agreement.

b. If U.S. EPA disapproves in writing of any person(s)' technical qualifications, Respondent shall notify U.S. EPA of the identity and qualifications of the replacement(s) within 30 days of the written notice. If U.S. EPA subsequently disapproves of the replacement(s), U.S. EPA reserves the right to terminate this Settlement Agreement and to conduct a complete RI/FS for each facility, and to seek reimbursement for costs and penalties from Respondent. During the course of each RI/FS, Respondent shall notify U.S. EPA in writing of any changes or additions in the personnel used to carry out such Work, providing their names, titles, and qualifications. U.S. EPA shall have the same right to disapprove changes and additions to personnel as it has hereunder regarding the initial notification.

26. Within fifteen (15) days after the Effective Date, Respondent shall designate a Project Coordinator who shall be responsible for administration of all actions by Respondent required by this Settlement Agreement and shall submit to U.S. EPA the designated Project Coordinator's name, address, telephone number, and qualifications. To the greatest extent possible, the Project Coordinator shall be present on Site or readily available during Site Work. U.S. EPA retains the right to disapprove of the designated Project Coordinator. If U.S. EPA disapproves of the designated Project Coordinator, Respondent shall retain a different Project Coordinator and shall notify U.S. EPA of that person's name, address, telephone number and qualifications within fifteen (15) days following U.S. EPA's disapproval. Respondent shall have the right to change their Project Coordinator subject to U.S. EPA's right to disapprove. Respondent shall notify U.S. EPA fifteen (15) days before such change is made. The initial notification may be made orally, but shall be promptly followed by a written notification.

27. U.S. EPA has designated Timothy Prendiville of the Superfund Division, Region 5 as its Project Coordinator. U.S. EPA will notify Respondent of a change in its designation of the Project Coordinator. Except as otherwise provided in this Settlement Agreement, Respondent shall direct all submissions required by this Settlement Agreement to:

Tim Prendiville, RPM  
U.S. EPA, Superfund Division  
77 West Jackson, SR-6J  
Chicago, Illinois 60604-3590

Respondent is encouraged to make its submissions to U.S. EPA on recycled paper (which includes significant post-consumer waste paper content where possible) and using two-sided copies. Respondent shall make submissions electronically according to U.S. EPA Region 5 specifications. Receipt by Respondent's Project Coordinator of any notice or communication



from U.S. EPA relating to this Settlement Agreement shall constitute receipt by Respondent. Documents to be submitted to the Respondent shall be sent to:

Steven Matuszak  
Manager, Environmental Services  
Integrus Business Support  
130 East Randolph Drive  
Chicago IL 60601

Copies to:

Stephen H Armstrong  
Ungaretti & Harris LLP  
3500 Three First National Plaza  
Chicago IL 60602

28. U.S. EPA's Project Coordinator shall have the authority lawfully vested in a Remedial Project Manager ("RPM") and On-Scene Coordinator ("OSC") by the NCP. In addition, U.S. EPA's Project Coordinator shall have the authority consistent with the NCP to halt any Work required by this Settlement Agreement, and to take any necessary response action when s/he determines that conditions at a Site may present an immediate endangerment to public health or welfare or the environment. The absence of the U.S. EPA Project Coordinator from the areas under study pursuant to this Settlement Agreement shall not be cause for the stoppage or delay of Work.

29. U.S. EPA and Respondent shall have the right, subject to Paragraph 26, to change their respective Project Coordinator. Respondent shall notify U.S. EPA fifteen (15) days before such a change is made. The initial notification by either party may be made orally, but shall be promptly followed by a written notice.

30. U.S. EPA shall arrange for a qualified person to assist in its oversight and review of the conduct of each RI/FS, as required by Section 104(a) of CERCLA, 42 U.S.C. § 9604(a). Such person shall have the authority to observe Work and make inquiries in the absence of U.S. EPA, but not to modify the RI/FS Planning Documents or other work plans.

## **IX. WORK TO BE PERFORMED**

31. a. Respondent shall conduct a RI/FS for each Site in accordance with the provisions of this Settlement Agreement, the SOW, CERCLA, the NCP, U.S. EPA guidance related to remedial investigations and feasibility studies including, but not limited to, the "Interim Final Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA" (OSWER Directive # 9355.3-01), "Guidance for Data Useability in Risk Assessment" (OSWER Directive #9285.7-05), Risk Assessment Guidance for Superfund (RAGS), Volume I - Human Health Evaluation Manual (Part A), Interim Final (EPA-540-1-89-

002), OSWER Directive 9285.7-01A, December 1, 1989; and Risk Assessment Guidance for Superfund (RAGS), Volume I - Human Health Evaluation Manual (Part D, Standardized Planning, Reporting, and Review of Superfund Risk Assessments), Interim, (EPA 540-R-97-033), OSWER Directive 9285.7-01D, January 1998, guidance referenced in the SOW, and any RI/FS related guidance subsequently issued by U.S. EPA.

b. In each RI and FS Report, Respondent shall address the factors required to be taken into account in Section 121 of CERCLA, 42 U.S.C. § 9621, and Section 300.430 of the NCP, 40 C.F.R. § 300.430. Each RI shall characterize the geology and hydrogeology of the Site, determine the nature and extent of hazardous substances, pollutants or contaminants at or from the Site, and characterize all ecological zones including terrestrial, riparian, wetlands, aquatic/marine, and transitional. Respondent shall prepare, for inclusion with each RI Report, a determination of the nature and extent of the current and potential threat to the public health or welfare or the environment posed by the release or threatened release of any hazardous substances, pollutants, or contaminants at or from the Site, including a "Baseline Human Health Risk Assessment" and "Baseline Ecological Risk Assessment." In each FS Report, Respondent shall determine and evaluate (based on treatability testing, where appropriate) alternatives for remedial action that protect human health and the environment by recycling waste or by eliminating, reducing and/or controlling risks posed through each pathway at the Site. In each FS Report, the Respondent shall evaluate a range of alternatives including but not limited to those alternatives described in 40 C.F.R. § 300.430(e) and remedial alternatives that utilize permanent solutions and alternative treatment technologies or resource recovery technologies. The FS Reports shall include a detailed analysis of individual alternatives against each of the nine evaluation criteria in 40 C.F.R. § 300.430(e)(9)(iii) and a comparative analysis that focuses upon the relative performance of each alternative against the nine criteria in 40 C.F.R. § 300.430(e)(9)(iii). Respondent shall submit to U.S. EPA and the State the requested number of copies of all plans, reports, submittals and other deliverables required under this Settlement Agreement, the SOW and the RI/FS Planning Documents in accordance with the approved schedule for review and approval pursuant to Section X (U.S. EPA Approval of Plans and Other Submissions). Upon request by U.S. EPA, Respondent shall submit in electronic form all portions of RI and FS Reports, any report or other deliverable Respondent is required to submit pursuant to provisions of this Settlement Agreement, including the SOW. Upon approval by U.S. EPA, all deliverables under this Settlement Agreement, including the SOW, shall be incorporated into and become enforceable under this Settlement Agreement.

### 32. Community Involvement Plan and Technical Assistance Plan.

a. U.S. EPA will prepare a Community Involvement Plan(s), in accordance with U.S. EPA guidance and the NCP. As requested by U.S. EPA, Respondent shall provide information supporting U.S. EPA's community relations programs.

b. When requested by U.S. EPA, Respondent also shall provide U.S. EPA with the following deliverable:

Technical Assistance Plan: For each Site, upon request by U.S. EPA and in accordance with the schedule in the SOW, Respondent shall provide U.S. EPA with a Technical Assistance Plan ("TAP") for providing and administering up to \$50,000 of Respondent's funds to be used by a qualified community group to hire independent technical advisers during the Work conducted pursuant to this Settlement Agreement. The TAP shall state that the Respondent will provide and administer any additional amounts needed if U.S. EPA, in its unreviewable discretion, determines that the selected community group has demonstrated such a need prior to U.S. EPA's issuance of the ROD for each Site contemplated by this Settlement Agreement. Upon its approval or modification by U.S. EPA pursuant to Section X (U.S. EPA Approval of Plans and Other Submissions), the TAP shall be incorporated into and become enforceable under this Settlement Agreement. A TAP may be requested by U.S. EPA for any or each of the Sites.

33. Modification of any plans.

a. If at any time during the RI/FS process, Respondent identifies a need for additional data, Respondent shall submit a memorandum documenting the need for additional data to the U.S. EPA Project Coordinator within thirty (30) days of identification. U.S. EPA in its discretion will determine whether the additional data will be collected by Respondent and whether it will be incorporated into reports and deliverables.

b. In the event of unanticipated or changed circumstances at a Site, Respondent shall notify the U.S. EPA Project Coordinator by telephone within 24 hours of discovery of the unanticipated or changed circumstances. In addition to the authorities in the NCP, in the event that U.S. EPA determines that the immediate threat or the unanticipated or changed circumstances warrant changes in the RI/FS Planning Documents, U.S. EPA shall modify or amend the RI/FS Planning Documents in writing accordingly. Respondent shall perform the RI/FS Planning Documents as modified or amended.

c. U.S. EPA may determine that in addition to tasks defined in the initially approved RI/FS Planning Documents, other additional Work may be necessary to accomplish the objectives of the RI/FS as set forth in the SOW for the RI/FS. U.S. EPA may require that Respondent perform these response actions in addition to those required by the initially approved RI/FS Planning Documents, including any approved modifications, if it determines that such actions are necessary for a complete RI/FS.

d. Respondent shall confirm its willingness to perform the additional Work in writing to U.S. EPA within fifteen (15) days of receipt of the U.S. EPA request. If Respondent objects to any modification determined by U.S. EPA to be necessary pursuant to this Paragraph, Respondent may seek dispute resolution pursuant to Section XV (Dispute Resolution). The SOW and/or RI/FS Planning Documents shall be modified in accordance with the final resolution of the dispute.

e. Respondent shall complete the additional Work according to the standards, specifications, and schedule set forth or approved by U.S. EPA in a written modification to the

RI/FS Planning Documents or written work plan supplement. U.S. EPA reserves the right to conduct the Work itself at any point, to seek reimbursement from Respondent, and/or to seek any other appropriate relief.

f. Nothing in this Paragraph shall be construed to limit U.S. EPA's authority to require performance of further response actions as otherwise provided in this Settlement Agreement.

34. Off-Site Shipment of Waste Material.

a. Respondent shall, prior to any off-site shipment of Waste Material from the Sites to an out-of-state waste management facility, provide written notification of such shipment of Waste Material to the appropriate state environmental official in the receiving facility's state and to U.S. EPA's designated Project Coordinator. However, this notification requirement shall not apply to any off-site shipments when the total volume of all such shipments will not exceed 10 cubic yards.

b. Respondent shall include in the written notification the following information: (i) the name and location of the facility to which the Waste Material is to be shipped; (ii) the type and quantity of the Waste Material to be shipped; (iii) the expected schedule for the shipment of the Waste Material; and (iv) the method of transportation. 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 the Waste Material to another facility within the same state, or to a facility in another state.

c. The identity of the receiving facility and state will be determined by Respondent following the award of the contract for the remedial investigation and feasibility study. Respondent shall provide the information required by Subparagraph 34.b and 34.d as soon as practicable after the award of the contract and before the Waste Material is actually shipped.

d. Before shipping any hazardous substances, pollutants, or contaminants from the Sites to an off-site location, Respondent shall obtain U.S. EPA's certification that the proposed receiving facility 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. Respondent shall only send hazardous substances, pollutants, or contaminants from the Sites to an off-site facility that complies with the requirements of the statutory provision and regulation cited in the preceding sentence.

35. Meetings. Respondent shall make presentations at, and participate in, meetings at the request of U.S. EPA during the initiation, conduct, and completion of the RI/FS. In addition to discussion of the technical aspects of the RI/FS, topics will include anticipated problems or new issues. Meetings will be scheduled at U.S. EPA's discretion.

36. Progress Reports. In addition to the deliverables set forth in this Settlement Agreement, Respondent shall provide to U.S. EPA progress reports in accordance with the schedule in the SOW. For the Monthly Progress Reports, at a minimum, with respect to the preceding month, these reports shall (i) describe the actions which have been taken to comply with this Settlement Agreement during that month, (ii) include hard copies and electronic copies (according to U.S. EPA Region 5 specifications) of all results of sampling and tests and all other data received by the Respondent (iii) describe Work planned for the next two months with schedules relating such Work to the overall project schedule for RI/FS completion, and (iv) describe all problems encountered and any anticipated problems, any actual or anticipated delays, and solutions developed and implemented to address any actual or anticipated problems or delays.

37. Emergency Response and Notification of Releases.

a. In the event of any action or occurrence during performance of the Work which causes or threatens a release of Waste Material from the Sites that constitutes an emergency situation or may present an immediate threat to public health or welfare or the environment, Respondent shall immediately take all appropriate action. 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, to prevent, abate or minimize such release or endangerment caused or threatened by the release. Respondent shall also immediately notify the U.S. EPA Project Coordinator or, in the event of his/her unavailability, the Regional Duty Officer, U.S. EPA Region 5 Emergency Planning and Response Branch at (Tel: (312) 353-2318) of the incident or Site conditions. In the event that Respondent fails to take appropriate response action as required by this Paragraph, and U.S. EPA takes such action instead, Respondent shall reimburse U.S. EPA all costs of the response action not inconsistent with the NCP pursuant to Section XVIII (Payment of Response Costs).

b. In addition, in the event of any release of a hazardous substance from the Sites, Respondent shall immediately notify the U.S. EPA Project Coordinator, the OSC or Regional Duty Officer at (312) 353-2318 and the National Response Center at (800) 424-8802. Respondent shall submit a written report to U.S. EPA within 7 days after each release, setting forth the events that occurred and the measures taken or to be taken to mitigate any release or endangerment caused or threatened by the release and to prevent the reoccurrence of such a release. 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, *et seq.*

## **X. U.S. EPA APPROVAL OF PLANS AND OTHER SUBMISSIONS**

38. After review of any plan, report or other item that is required to be submitted for approval pursuant to this Settlement Agreement, including the SOW, U.S. EPA, after a reasonable opportunity for review and comment by the State, shall: (a) approve, in whole or in part, the submission; (b) approve the submission upon specified conditions; (c) modify the

submission to cure the deficiencies; (d) disapprove, in whole or in part, the submission, directing that the Respondent modify the submission; or (e) any combination of the above. However, U.S. EPA shall not modify a submission without first providing Respondent at least one notice of deficiency and an opportunity to cure in accordance with the schedule in the SOW, except where to do so would cause serious disruption to the Work or where previous submission(s) have been disapproved due to material defects.

39. In the event of approval, approval upon conditions, or modification by U.S. EPA, pursuant to Subparagraph 38(a), (b), (c) or (e), Respondent shall proceed to take any action required by the plan, report or other item, as approved or modified by U.S. EPA subject only to their right to invoke the Dispute Resolution procedures set forth in Section XV (Dispute Resolution) with respect to the modifications or conditions made by U.S. EPA. Following U.S. EPA approval or modification of a submittal or portion thereof, Respondent shall not thereafter alter or amend such submittal or portion thereof unless directed by U.S. EPA. In the event that U.S. EPA modifies the submission to cure the deficiencies pursuant to Subparagraph 38(c) and the submission had a material defect, U.S. EPA retains the right to seek stipulated penalties, as provided in Section XVI (Stipulated Penalties). U.S. EPA also retains the right to perform its own studies, complete the RI/FS (or any portion of the RI/FS), and seek reimbursement from Respondent for its costs; and/or seek any other appropriate relief.

40. Resubmission of Plans.

a. Upon receipt of a notice of disapproval, Respondent shall, in accordance with the schedule in the SOW or such longer time as specified by U.S. EPA in such notice, correct the deficiencies and resubmit the plan, report, or other item for approval. Any stipulated penalties applicable to the submission, as provided in Section XVI, shall accrue during the thirty-day period or otherwise specified period but shall not be payable unless the resubmission is disapproved or modified due to a material defect as provided in Paragraphs 41 and 42.

b. Notwithstanding the receipt of a notice of disapproval, Respondent shall proceed to take any action required by any non-deficient portion of the submission unless otherwise directed by U.S. EPA. Implementation of any non-deficient portion of a submission shall not relieve Respondent of any liability for stipulated penalties under Section XVI (Stipulated Penalties).

c. For each Site, unless otherwise directed by U.S. EPA, Respondent shall not proceed further with any subsequent activities or tasks at that Site until receiving U.S. EPA approval for the following deliverables: Site-Specific RI/FS Work Plan, Draft Remedial Investigation Report, Treatability Testing Work Plan (if applicable), and Draft Feasibility Study Report. While awaiting U.S. EPA approval on these deliverables, Respondent shall proceed with all other tasks and activities which may be conducted independently of these deliverables, in accordance with the schedule set forth in this Settlement Agreement.

d. For all remaining deliverables not enumerated above in subparagraph 40.c., Respondent shall proceed with all subsequent tasks, activities and deliverables without awaiting

U.S. EPA approval on the submitted deliverable. U.S. EPA reserves the right to stop Respondent from proceeding further, either temporarily or permanently, on any task, activity or deliverable at any point during the RI/FS.

41. If U.S. EPA disapproves a resubmitted plan, report or other item, or portion thereof, U.S. EPA may direct Respondent to correct the deficiencies. U.S. EPA also retains the right to modify or develop the plan, report or other item. Respondent shall implement any such plan, report, or item as corrected, modified or developed by U.S. EPA, subject only to their right to invoke the procedures set forth in Section XV (Dispute Resolution).

42. If upon resubmission, a plan, report, or item is disapproved or modified by U.S. EPA due to a material defect, Respondent shall be deemed to have failed to submit such plan, report, or item timely and adequately unless Respondent invokes the dispute resolution procedures in accordance with Section XV (Dispute Resolution) and U.S. EPA's action is revoked or substantially modified pursuant to a Dispute Resolution decision issued by U.S. EPA or superseded by an agreement reached pursuant to that Section. The provisions of Section XV (Dispute Resolution) and Section XVI (Stipulated Penalties) shall govern the implementation of the Work and accrual and payment of any stipulated penalties during Dispute Resolution. If U.S. EPA's disapproval or modification is not otherwise revoked, substantially modified or superseded as a result of a decision or agreement reached pursuant to the Dispute Resolution process set forth in Section XV, stipulated penalties shall accrue for such violation from the date on which the initial submission was originally required, as provided in Section XVI.

43. In the event that U.S. EPA takes over some of the tasks, but not the preparation of the RI Report or the FS Report, Respondent shall incorporate and integrate information supplied by U.S. EPA into the final reports.

44. All plans, reports, and other items submitted to U.S. EPA under this Settlement Agreement shall, upon approval or modification by U.S. EPA, be incorporated into and enforceable under this Settlement Agreement. In the event U.S. EPA approves or modifies a portion of a plan, report, or other item submitted to U.S. EPA under this Settlement Agreement, the approved or modified portion shall be incorporated into and enforceable under this Settlement Agreement.

45. Neither failure of U.S. EPA to expressly approve or disapprove of Respondent's submissions within a specified time period, nor the absence of comments, shall be construed as approval by U.S. EPA. Whether or not U.S. EPA gives express approval for Respondent's deliverables, Respondent is responsible for preparing deliverables acceptable to U.S. EPA.

## **XI. QUALITY ASSURANCE, SAMPLING AND DATA AVAILABILITY**

46. Quality Assurance. Respondent shall assure that Work performed, samples taken and analyses conducted conform to the requirements of the SOW, the approved Multi-Site QAPP, the approved Site-Specific Work Plan and guidance identified therein. Respondent will

assure that field personnel used by Respondent are properly trained in the use of field equipment and in chain of custody procedures. Respondent shall only use laboratories which have a documented quality system that complies with "EPA Requirements for Quality Management Plans (QA/R-2)" (EPA/240/B-01/002, March 2001) or equivalent documentation as determined by U.S. EPA.

47. Sampling.

a. All results of sampling, tests, modeling or other data (including raw data) generated by Respondent, or on Respondent's behalf, during the period that this Settlement Agreement is effective, shall be submitted to U.S. EPA (in paper and electronic form according to U.S. EPA Region 5 specifications) in the next monthly progress report as described in Paragraph 36 of this Settlement Agreement. U.S. EPA will make available to Respondent validated data generated by U.S. EPA unless it is exempt from disclosure by any federal or state law or regulation.

b. Respondent shall verbally notify U.S. EPA, at least fifteen (15) days prior to conducting significant field events as described in the SOW and RI/FS Work Plan/Field Sampling Plan. At U.S. EPA's verbal or written request, or the request of U.S. EPA's oversight assistant, Respondent shall allow split or duplicate samples to be taken by U.S. EPA (and its authorized representatives) of any samples collected by Respondent in implementing this Settlement Agreement. All split samples of Respondent shall be analyzed by the methods identified in the QAPP.

48. Data Availability.

a. At all reasonable times, U.S. EPA and its authorized representatives shall have the authority to enter and freely move about all property at the Sites and off-site areas where Work, if any, is being performed, for the purposes of inspecting conditions, activities, the results of activities, records, operating logs, and contracts related to the Sites or Respondent and its contractor pursuant to this Settlement Agreement; reviewing the progress of Respondent in carrying out the terms of this Settlement Agreement; conducting tests as U.S. EPA or its authorized representatives deem necessary; using a camera, sound recording device or other documentary type equipment; and verifying the data submitted to U.S. EPA by Respondent. Respondent shall allow these persons to inspect and copy all records, files, photographs, documents, sampling and monitoring data, and other writings related to Work undertaken in carrying out this Settlement Agreement. Nothing herein shall be interpreted as limiting or affecting U.S. EPA's right of entry or inspection authority under federal law. All persons accessing the Sites under this paragraph shall comply with all approved Health and Safety Plans.

b. Respondent may assert business confidentiality claims covering part or all of the documents or information submitted to U.S. EPA and the State under this Settlement Agreement 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). Documents or information determined to be confidential by U.S. EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart



B. If no claim of confidentiality accompanies documents or information when it is submitted to U.S. EPA and the State, or if U.S. EPA has notified Respondent that the documents or information 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 documents or information without further notice to Respondent.

c. Respondent may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Respondent asserts such a privilege in lieu of providing documents, Respondent shall provide U.S. EPA with the following: (1) the title of the document, record or information; (2) the date of the document, record or information; (3) the name and title of the author of the document, record or information; (4) the name and title of each addressee and recipient; (5) a description of the contents of the document, record or information; (6) the privilege asserted by Respondent.

d. Respondent agrees not to assert confidentiality or privilege claims with respect to any data related to Site conditions, sampling, or monitoring. Respondent shall segregate and clearly identify all documents or information submitted under this Settlement Agreement for which Respondent asserts business confidentiality claims or privileges.

49. In entering into this Settlement Agreement, Respondent waives any objections to any data gathered, generated, or evaluated by U.S. EPA, the State or Respondent in the performance or oversight of the Work that has been verified according to the quality assurance/quality control (QA/QC) procedures required by the Settlement Agreement or any U.S. EPA-approved Work Plans or Sampling and Analysis Plans. If Respondent objects to any other data relating to the RI/FS, Respondent shall submit to U.S. 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 U.S. EPA within 15 days of the monthly progress report containing the data.

## **XII. SITE ACCESS AND INSTITUTIONAL CONTROLS**

50. If the Sites, or any other property where access is needed to implement this Settlement Agreement, are owned or controlled by the Respondent, the Respondent shall, commencing on the Effective Date, provide U.S. EPA and its representatives, including contractors, with access at all reasonable times to the Sites, or such other property, for the purpose of conducting any activity related to this Settlement Agreement.

51. Where any action under this Settlement Agreement is to be performed in areas owned by or in possession of someone other than the Respondent, the Respondent shall use its best efforts to obtain all necessary access agreements within thirty (30) days after the Effective Date, or as otherwise specified in writing by the U.S. EPA Project Coordinator. Respondent shall immediately notify U.S. EPA if, after using their best efforts, they are unable to obtain such agreements. For purposes of this Paragraph, "best efforts" includes the payment of reasonable

sums of money in consideration of access. Respondent shall describe in writing their efforts to obtain access. U.S. EPA may then assist Respondent in gaining access, to the extent necessary to effectuate the response actions described herein, using such means as U.S. EPA deems appropriate. Respondent shall reimburse U.S. EPA for all costs and attorney's fees incurred by the United States in obtaining such access, in accordance with the procedures in Section XVIII (Payment of Response Costs).

52. Notwithstanding any provision of this Settlement Agreement, U.S. EPA retains all of its access authorities and rights, including enforcement authorities related thereto, under CERCLA, RCRA, and any other applicable statutes or regulations.

53. If Respondent cannot obtain access agreements, U.S. EPA may obtain access for Respondent, perform those tasks or activities with U.S. EPA contractors, or terminate the Settlement Agreement. In the event that U.S. EPA performs those tasks or activities with U.S. EPA contractors and does not terminate the Settlement Agreement, Respondent shall perform all other activities not requiring access to that property, and shall reimburse U.S. EPA for all costs incurred in performing such activities. Respondent shall integrate the results of any such tasks undertaken by U.S. EPA into its reports and deliverables.

### **XIII. COMPLIANCE WITH OTHER LAWS**

54. Respondent shall comply with all applicable local, state and federal laws and regulations when performing each RI/FS. No local, state, or federal permit shall be required for any portion of any action conducted entirely on-site, 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 is to be conducted off-site and 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. This Settlement Agreement is not, and shall not be construed to be, a permit issued pursuant to any federal or state statute or regulation.

### **XIV. RETENTION OF RECORDS**

55. During the pendency of this Settlement Agreement and for a minimum of ten (10) years after commencement of construction of any remedial action for each Site, the Respondent shall preserve and retain all non-identical copies of records and documents (including records or documents in electronic form) now in its possession or control or which come into its possession or control that relate in any manner to the performance of the Work or the liability of any person under CERCLA with respect to each Site, regardless of any corporate retention policy to the contrary. Until 10 years after commencement of construction of any remedial action for each Site, Respondent shall also instruct their contractors and agents to preserve all documents, records, and information of whatever kind, nature or description relating to performance of the Work at such Site.

56. At the conclusion of these document retention periods, Respondent shall notify U.S. EPA at least ninety (90) days prior to the destruction of any such records or documents, and, upon request by U.S. EPA, Respondent shall deliver any such records or documents to U.S. EPA. Respondent may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Respondent asserts such a privilege, they shall provide U.S. EPA with the following: (i) the title of the document, record, or information; (ii) the date of the document, record, or information; (iii) the name and title of the author of the document, record, or information; (iv) the name and title of each addressee and recipient; (v) a description of the subject of the document, record, or information; and (vi) the privilege asserted by Respondent. However, no documents, reports or other information created or generated pursuant to the requirements of this Settlement Agreement shall be withheld on the grounds that they are privileged.

57. The Respondent hereby certifies 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, documents or other information (other than identical copies) relating to its potential liability regarding each Site since notification of potential liability by U.S. EPA or the filing of suit against it regarding the Site and that it has fully complied with any and all U.S. EPA requests for information 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.

## **XV. DISPUTE RESOLUTION**

58. 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.

59. If the Respondent objects to any U.S. EPA action taken pursuant to this Settlement Agreement, including billings for Future Response Costs, they shall notify U.S. EPA in writing of their objection(s) within fifteen (15) days of such action, unless the objection(s) has/have been resolved informally. U.S. EPA and Respondent shall have thirty (30) days from U.S. EPA's receipt of Respondent's written objection(s) to resolve the dispute (the "Negotiation Period"). The Negotiation Period may be extended at the sole discretion of U.S. EPA. Such extension may be granted verbally but must be confirmed in writing to be effective.

60. 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. If the Parties are unable to reach an agreement within the Negotiation Period, an U.S. EPA management official at the Superfund Branch Chief level or higher will issue a written decision. U.S. EPA's decision shall be incorporated into and become an enforceable part of this Settlement Agreement. Respondent's obligations under this Settlement Agreement shall not be tolled by submission of any objection for dispute resolution under this Section. Following resolution of the dispute, as provided by this Section, Respondent shall

fulfill the requirement that was the subject of the dispute in accordance with the agreement reached or with U.S. EPA's decision, whichever occurs. Respondent shall proceed in accordance with U.S. EPA's final decision regarding the matter in dispute, regardless of whether Respondent agrees with the decision. If Respondent does not agree to perform or does not actually perform the Work in accordance with U.S. EPA's final decision, U.S. EPA reserves the right in its sole discretion to conduct the Work itself, to seek reimbursement from Respondent, to seek enforcement of the decision, to seek stipulated penalties, and/or to seek any other appropriate relief.

## **XVI. STIPULATED PENALTIES**

61. The Respondent shall be liable to U.S. EPA for stipulated penalties in the amounts set forth in Paragraphs 62, 63, and 64 for failure to comply with any of the requirements of this Settlement Agreement specified below unless excused under Section XVII (Force Majeure). "Compliance" by the Respondent shall include completion of the Work under this Settlement Agreement or any activities contemplated under any of the RI/FS Planning Documents, work plans or other plan approved under this Settlement Agreement identified below in accordance with all applicable requirements of law, this Settlement Agreement, the SOW, and any plans or other documents approved by U.S. EPA pursuant to this Settlement Agreement and within the specified time schedules established by and approved under this Settlement Agreement.

62. Stipulated Penalty Amounts - Work. The following stipulated penalties shall accrue per day for any noncompliance with required Work, including the following: failure to meet due dates for payments of Future Response Costs; failure to establish escrow accounts in the event of disputes; and/or, failure to timely or adequately implement work as prescribed in the SOW and any approved RI/FS Planning Documents and Schedules.

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$ 1,000	1 <sup>st</sup> through 14 <sup>th</sup> day
\$ 2,000	15 <sup>th</sup> through 30 <sup>th</sup> day
\$ 4,000	31 <sup>st</sup> day and beyond

63. Stipulated Penalty Amounts - RI/FS Planning Documents, Reports and Technical Memoranda. The following stipulated penalties shall accrue per violation per day for failure to submit timely or adequate plans, reports, technical memoranda or other written documents required by Section III: Tasks 1 through 7 of the SOW in accordance with the Schedule in Exhibit A of the SOW:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$ 1,000	1 <sup>st</sup> through 14 <sup>th</sup> day
\$ 2,000	15 <sup>th</sup> through 30 <sup>th</sup> day
\$ 5,000	31 <sup>st</sup> day and beyond

64. Respondent shall be liable for stipulated penalties in the amount of \$500 per day for the first week or part thereof and \$2,500 per day for each week or part thereof thereafter for failure to meet any other obligation under this Settlement Agreement including the SOW.

65. 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. However, stipulated penalties shall not accrue: (i) with respect to a deficient submission under Section X (U.S. EPA Approval of Plans and Other Submissions), during the period, if any, beginning on the 31<sup>st</sup> day after U.S. EPA's receipt of such submission until the date that U.S. EPA notifies Respondent of any deficiency; and (ii) with respect to a decision by the U.S. EPA Management Official at the Superfund Branch Chief level or higher, under Paragraph 60 of Section XV (Dispute Resolution), during the period, if any, beginning on the 31<sup>st</sup> day after the Negotiation Period begins until the date that the U.S. EPA management official issues a final decision regarding such dispute. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Settlement Agreement.

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

67. All penalties accruing under this Section shall be due and payable to U.S. EPA within 30 days of Respondent's receipt from U.S. EPA of a demand for payment of the penalties, unless Respondent invokes the dispute resolution procedures in accordance with Section XV (Dispute Resolution). All payments to U.S. EPA under this Section shall be paid by certified or cashier's check(s) made payable to "EPA Hazardous Substances Superfund," shall be mailed to:

US Environmental Protection Agency  
 Superfund Payments  
 Cincinnati Finance Center,  
 PO Box 979076  
 St. Louis, MO 63197-9000

The check shall indicate that the payment is for stipulated penalties, and shall reference the Site name, U.S. EPA Region and Site/Spill ID Number (see Appendix C), the title of this Settlement

Agreement (including U.S. EPA Docket Number), and the name and address of the party making payment. Copies of check(s) paid pursuant to this Section, and any accompanying transmittal letter(s) shall be sent to:

Peter Felitti  
Site Attorney  
Office of Regional Counsel  
Mail Code C-14J  
77 West Jackson  
Chicago, IL 60604-3590

Tim Prendiville  
Remedial Project Manager  
Superfund Division  
Mail Code SR-6J  
77 West Jackson  
Chicago, IL 60604-3590

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

69. Penalties shall continue to accrue as provided in Paragraph 65 during any dispute resolution period, but need not be paid until thirty (30) days after the dispute is resolved by agreement or by receipt of U.S. EPA's decision.

70. If Respondent fails to pay stipulated penalties when due, U.S. EPA may institute proceedings to collect the penalties, as well as Interest. Respondent shall pay Interest on the unpaid balance, which shall begin to accrue on the date of demand made pursuant to Paragraph 67.

71. Nothing in this Settlement Agreement shall be construed as prohibiting, altering, or in any way limiting the ability of U.S. 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 Section 122(l) of CERCLA, 42 U.S.C. § 9622(l), and punitive damages pursuant to Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3). Provided, however, that U.S. EPA shall not seek civil penalties pursuant to 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 herein, except in the case of willful violation of this Settlement Agreement or in the event that U.S. EPA assumes performance of a portion or all of the Work pursuant to Section XX (Reservation of Rights by U.S. EPA), Paragraph 82. Notwithstanding any other provision of this Section, U.S. EPA may, in its unreviewable discretion, waive any portion of stipulated penalties that have accrued pursuant to this Settlement Agreement.

## **XVII. FORCE MAJEURE**

72. Respondent agrees to perform all requirements of this Settlement Agreement within the time limits established under this Settlement Agreement, unless the performance is delayed by a *force majeure*. For purposes of this Settlement Agreement, *force majeure* is defined as any event arising from causes beyond the control of Respondent or of any entity controlled by

Respondent, including but not limited to their contractors and subcontractors, which delays or prevents performance of any obligation under this Settlement Agreement despite Respondent's best efforts to fulfill the obligation. *Force majeure* does not include financial inability to complete the Work or increased cost of performance.

73. If any event occurs or has occurred that may delay the performance of any obligation under this Settlement Agreement, whether or not caused by a *force majeure* event, Respondent shall notify U.S. EPA orally within 48 hours of when Respondent first knew that the event might cause a delay. Within five (5) business days thereafter, Respondent shall provide to U.S. EPA in writing 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* event if they intend to assert such a claim; and a statement as to whether, in the opinion of the Respondent, such event may cause or contribute to an endangerment to public health, welfare or the environment. Failure to comply with the above requirements shall preclude Respondent from asserting any claim of *force majeure* for that event for the period of time of such failure to comply and for any additional delay caused by such failure.

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

## **XVIII. PAYMENT OF RESPONSE COSTS**

### **75. Payments for Past Response Costs.**

Within 30 days after the Effective Date, Respondent shall pay to U.S. EPA \$27,252.08 for Past Response Costs.

a. The payment will be placed into a special account within the EPA Hazardous Substances Superfund for each Site. The payment will be split equally between the Sites. These funds shall be retained and used by U.S. EPA to conduct or finance Future response Actions, including, but not limited to, payment of oversight contractor(s) retained by U.S. EPA, at or in connection with any of the Site or with any of the Sites covered by this Agreement, or to be transferred by U.S. EPA to the U.S. EPA Hazardous Substances Superfund.

b. Payment shall be made to U.S. EPA by Electronics Funds Transfer (“EFT”) in accordance with current EFT procedures to be provided to Respondent by U.S. EPA Region 5. Payment shall be accompanied by a statement identifying the name and address of the party making payment, the Site name, U.S. EPA Region 5, the Site/Spill ID Number, and the account number.

c. At the time of payment, Respondent shall send notice that payment has been made to:

Peter Felitti  
Site Attorney  
Office of Regional Counsel  
Mail Code C-14J  
77 West Jackson  
Chicago, IL 60604-3590

Tim Prendiville  
Remedial Project Manager  
Superfund Division  
Mail Code SR-6J  
77 West Jackson  
Chicago, IL 60604-3590

76. Payments for Future Response Costs.

a. Respondent shall pay U.S. EPA all Future Response Costs not inconsistent with the NCP. On a periodic basis, U.S. EPA will send Respondent a bill for each of the Sites, requiring payment that includes Region 5’s Itemized Cost Summary, which includes direct and indirect costs incurred by U.S. EPA and its contractors. Respondent shall make all payments within 30 days of receipt of each bill requiring payment, except as otherwise provided in Paragraph 78 of this Settlement Agreement, according to the following procedures.

(i) If the payment amount demanded in the bill is for \$10,000 or greater, payment shall be made to U.S. EPA by Electronics Funds Transfer (“EFT”) in accordance with current EFT procedures to be provided to Respondent by U.S. EPA Region 5. Payment shall be accompanied by a statement identifying the name and address of the party making payment, the Site name, U.S. EPA Region 5, the Site/Spill ID Number, and the account number.

(ii) If the amount demanded in the bill is less than \$10,000, the Settling Respondent may in lieu of the EFT procedures in subparagraph 76(a)(i) make all payments required by this Paragraph by a certified or cashier’s check or checks made payable to “EPA Hazardous Substance Superfund,” referencing the name and address of the party making the payment, and the EPA Site/Spill ID Number. Settling Respondent shall send the check(s) to:

US Environmental Protection Agency  
Superfund Payments  
Cincinnati Finance Center  
PO Box 979076  
St. Louis, MO 63197-9000



b. At the time of payment, Respondent shall send notice that payment has been made to:

Peter Felitti  
Site Attorney  
Office of Regional Counsel  
Mail Code C-14J  
77 West Jackson  
Chicago, IL 60604-3590

Tim Prendiville  
Remedial Project Manager  
Superfund Division  
Mail Code SR-6J  
77 West Jackson  
Chicago, IL 60604-3590

c. The total amount to be paid for each Site by Respondent pursuant to Subparagraph 76.a. shall be deposited in the Site-specific Special Account within the U.S. EPA Hazardous Substance Superfund to be retained and used to conduct or finance response actions at or in connection with the Site, or to be transferred by U.S. EPA to the U.S. EPA Hazardous Substance Superfund.

77. If Respondent does not pay Past Response Costs within 30 days of the Effective Date, or does not pay Future Response Costs within thirty (30) days of Respondent's receipt of a bill, Respondent shall pay Interest on the unpaid balance of Past Response Costs and Future Response Costs, respectively. The Interest on unpaid Past Response Costs shall begin to accrue on the Effective Date and shall continue to accrue until the date of payment. The Interest on unpaid Future Response Costs shall begin to accrue on the date of the bill and shall continue to accrue until the date of payment. If U.S. EPA receives a partial payment, Interest shall accrue on any unpaid balance. 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, payments of stipulated penalties pursuant to Section XVI. Respondent shall make all payments required by this Paragraph in the manner described in Paragraph 76.

78. Respondent may contest payment of any Future Response Costs under Paragraph 76 if they determine that U.S. EPA has made an accounting error or if they believe U.S. EPA incurred excess costs as a direct result of an U.S. EPA action that was inconsistent with the NCP. Such objection shall be made in writing within thirty (30) days of receipt of the bill and must be sent to the U.S. EPA Project Coordinator. Any such objection shall specifically identify the contested Future Response Costs and the basis for objection. In the event of an objection, Respondent shall within the 30 day period pay all uncontested Future Response Costs to U.S. EPA in the manner described in Paragraph 76. Simultaneously, Respondent shall establish an interest-bearing escrow account in a federally-insured bank duly chartered in the State of Illinois and remit to that escrow account funds equivalent to the amount of the contested Future Response Costs. Respondent shall send to the U.S. EPA Project Coordinator a copy of the transmittal letter and check paying the uncontested Future 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. Simultaneously with establishment of the escrow account, Respondent shall initiate the

Dispute Resolution procedures in Section XV (Dispute Resolution). If U.S. EPA prevails in the dispute, within five (5) days of the resolution of the dispute, Respondent shall pay the sums due (with accrued interest) to U.S. EPA in the manner described in Paragraph 76. 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 U.S. EPA in the manner described in Paragraph 76. 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 XV (Dispute Resolution) shall be the exclusive mechanisms for resolving disputes regarding Respondent's obligation to reimburse U.S. EPA for its Future Response Costs.

### **XIX. COVENANT NOT TO SUE BY U.S. EPA**

79. In consideration of the actions that will be performed and the payments that will be made by Respondent under the terms of this Settlement Agreement, and except as otherwise specifically provided in this Settlement Agreement, U.S. 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 performance of the Work and for recovery of Past and Future Response Costs. This covenant not to sue shall take effect upon the receipt by U.S. EPA of the Past Response Costs due under Section XVIII of this Settlement Agreement and any Interest or Stipulated Penalties due for failure to pay Past Response Costs as required by Sections XVIII and XVI of this Settlement Agreement. This covenant not to sue is conditioned upon the complete and satisfactory performance by Respondent of all obligations under this Settlement Agreement, including, but not limited to, payment of Future Response Costs pursuant to Section XVIII. This covenant not to sue extends only to Respondent and does not extend to any other person.

### **XX. RESERVATIONS OF RIGHTS BY U.S. EPA**

80. Except as specifically provided in this Settlement Agreement, nothing herein shall limit the power and authority of U.S. 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 Sites. Further, nothing herein shall prevent U.S. 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.

81. The covenant not to sue set forth in Section XIX above does not pertain to any matters other than those expressly identified therein. U.S. 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. claims based on a failure by Respondent to meet a requirement of this Settlement Agreement;
- b. liability for costs not included within the definition of Past or Future Response Costs;
- c. liability for performance of response action other than the Work;
- d. criminal liability;
- e. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments;
- f. liability arising from the past, present, or future disposal, release or threat of release of Waste Materials outside of any Site;
- g. liability for costs incurred or to be incurred by the Agency for Toxic Substances and Disease Registry related to the Site; and
- h. liability for costs incurred if U.S. EPA assumes the performance of the Work pursuant to Paragraph 82.

82. Work Takeover. In the event U.S. EPA determines that Respondent has ceased implementation of any portion of the Work, are deficient or late in their performance of the Work, or are implementing the Work in a manner which may cause an endangerment to human health or the environment, U.S. EPA may assume the performance of all or any portion of the Work as U.S. EPA determines necessary. Respondent may invoke the procedures set forth in Section XV (Dispute Resolution) to dispute U.S. EPA's determination that takeover of the Work is warranted under this Paragraph. Notwithstanding any other provision of this Settlement Agreement, U.S. EPA retains all authority and reserves all rights to take any and all response actions authorized by law.

## **XXI. COVENANT NOT TO SUE BY RESPONDENT**

83. 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, Past, Interim and Future Response Costs, or this Settlement Agreement, including, but not limited to:

- a. any direct or indirect claim for reimbursement from the Hazardous Substance Superfund established by 26 U.S.C. § 9507, based on 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 claim arising out of the Work or arising out of the response actions for which the Past Response Costs or Future Response Costs have or will be incurred, 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, as amended, or at common law; or

c. any claim against the United States pursuant to Sections 107 and 113 of CERCLA, 42 U.S.C. §§ 9607 and 9613, relating to the Work or payment of Past Response Costs or Future Response Costs.

84. Except as provided in Paragraph 87 (Waiver of Claims), 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 the reservations set forth in Paragraphs 81 (b), (c), and (e) - (g), 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.

85. Nothing in this 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).

86. Agreement Not to Challenge Listing. Respondent agrees not to seek judicial review of a decision to list any of the Sites on the NPL at any time after the Effective Date of this Settlement Agreement based on a claim that changed Site conditions that resulted from the performance of the Work in any way affected the basis for listing the Site.

87. Waiver Against De Micromis Parties. Respondent agrees not to assert any claims and to waive all claims or causes of action that they may have for all matters relating to any of the Sites, including for contribution, against any person where the person's liability to Respondent with respect to that 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.

88. The waiver in Paragraph 87 shall not apply with respect to any defense, claim, or cause of action that the Respondent may have against any person meeting the above criteria if such person asserts a claim or cause of action relating to the Site against Respondent. This waiver also shall not apply to any claim or cause of action against any person meeting the above criteria if U.S. EPA determines:

a. that such person has failed to comply with any U.S. EPA requests for information or administrative subpoenas issued pursuant to Section 104(e) or 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) or 9622(e), or Section 3007 of the Solid Waste Disposal Act (also known as the Resource Conservation and Recovery Act or "RCRA"), 42 U.S.C. § 6972, or has impeded or is impeding, through action or inaction, the performance of a response action or natural resource restoration with respect to the Site, or has been convicted of a criminal violation

for the conduct to which this waiver would apply and that conviction has not been vitiated on appeal or otherwise; or

b. that the materials containing hazardous substances contributed to the Site by such person have contributed significantly, or could contribute significantly, either individually or in the aggregate, to the cost of response action or natural resource restoration at the Site.

89. Natural Resource Damages. For the purposes of Section 113(g)(1) of CERCLA, the parties agree that, upon issuance of this Settlement Agreement, remedial action under CERCLA shall be deemed to be scheduled and an action for damages (as defined in 42 U.S.C. § 9601(6)) must be commenced within 3 years after the completion of the remedial action.

## **XXII. OTHER CLAIMS**

90. By issuance of this Settlement Agreement, the United States and U.S. EPA assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Respondent.

91. Except as expressly provided in Section XXI, Paragraph 87 (Non-Exempt De Micromis Waivers) and Section XIX (Covenant Not to Sue by U.S. 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.

92. No action or decision by U.S. EPA pursuant to this Settlement Agreement shall give rise to any right to judicial review.

## **XXIII. CONTRIBUTION PROTECTION**

93. The Parties agree that this Settlement Agreement constitutes an administrative settlement for purposes of Section 113(f)(2) of CERCLA, 42 U.S.C. § 9613(f)(2), and that the Respondent 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, 42 U.S.C. §§ 9613(f)(2) and 9622(h)(4), for “matters addressed” in this Settlement Agreement. The “matters addressed” in this Settlement Agreement are the Work, Past Response Costs and Future Response Costs. The Parties further agree that this Settlement Agreement constitutes an administrative settlement for purposes of Section 113(f)(3)(B) of CERCLA, 42. U.S.C. § 9113(f)(3)(B), pursuant to which the Respondents have, as of the Effective Date, resolved their liability to the United States for the Work, Past Response Costs, and Future Response Costs. Nothing in this Settlement Agreement precludes the United States or Respondent from asserting any claims, causes of action, or demands against any person not parties to this Settlement Agreement for indemnification, contribution, or cost recovery subject to Paragraph 87. Nothing

herein diminishes the right of the United States, pursuant to Section 113(f)(2) and (3), 42 U.S.C. § 9613(f)(2) and (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) of CERCLA, 42 U.S.C. § 9613(f)(2).

#### **XXIV. INDEMNIFICATION**

94. Respondent shall indemnify, save and hold harmless the United States, its officials, agents, contractors, subcontractors, employees and representatives from any and all claims or causes of action arising from, or on account of negligent or other wrongful acts or omissions of Respondent, their officers, directors, employees, agents, contractors, or subcontractors, in carrying out actions pursuant to this Settlement Agreement. In addition, Respondent agrees to pay the United States all costs incurred by the United States, 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, their 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.

95. 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.

96. Respondent waives all claims 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 the Respondent and any person for performance of Work on or relating to any of the Sites. 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 the Respondent and any person for performance of Work on or relating to any Site.

#### **XXV. INSURANCE**

97. At least thirty (30) days prior to commencing any On-Site Work under this Settlement Agreement, Respondent shall secure, and shall maintain for the duration of this Settlement Agreement, comprehensive general liability insurance and automobile insurance with limits of \$2 million dollars, combined single limit, naming the United States as an additional insured. Within the same period, Respondent shall provide U.S. EPA with certificates of such insurance and a copy of each insurance policy. Respondent shall submit such certificates and

copies of policies each year on the anniversary of the Effective Date. In addition, for the duration of the Settlement Agreement, Respondent shall satisfy, or shall ensure that their contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing the Work on behalf of Respondent in furtherance of this Settlement Agreement. If Respondent demonstrates by evidence satisfactory to U.S. EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering some or all of the same risks but in an equal or lesser amount, then Respondent need provide only that portion of the insurance described above which is not maintained by such contractor or subcontractor.

## **XXVI. FINANCIAL ASSURANCE**

98. Within 30 days of the Effective Date, Respondent shall establish and maintain financial security for the benefit of U.S. EPA in the amount of three million dollars (\$3,000,000) in one or more of the following form to secure the full and final completion of Work by Respondent:

- a. a surety bond unconditionally guaranteeing payment and/or performance of the Work;
- b. one or more irrevocable letters of credit, payable to or at the direction of U.S. EPA, issued by financial institution(s) acceptable in all respects to U.S. EPA equaling the total estimated cost of the Work;
- c. a trust fund administered by a trustee acceptable in all respects to U.S. EPA;
- d. a policy of insurance issued by an insurance carrier acceptable in all respects to U.S. EPA, which ensures the payment and/or performance of the Work;
- e. a corporate guarantee to perform the Work provided by one or more parent corporations or subsidiaries of Respondent, or by one or more unrelated corporations that have a substantial business relationship with the Respondent; including a demonstration that any such company satisfied the financial test requirements of 40 C.F.R. § 264.143(f);
- f. a corporate guarantee to perform the Work by the Respondent, including a demonstration that the Respondent satisfies the requirements of 40 C.F.R. §143(f); and/or
- g. any other financial mechanism acceptable to and approved by U.S. EPA.

99. Any and all financial assurance instruments provided pursuant to this Section shall be in form and substance satisfactory to U.S. EPA, determined in U.S. EPA's sole discretion. In the event that U.S. EPA determines at any time that the financial assurances provided pursuant to this Section (including, without limitation, the instrument(s) evidencing such assurances) are inadequate, Respondent shall, within thirty (30) days of receipt of notice of U.S. EPA's determination, obtain and present to U.S. EPA for approval one of the other forms of financial assurance listed in Paragraph 98, above. In addition, if at any time U.S. EPA notifies

Respondent that the anticipated cost of completing the Work has increased, then, within 30 days of such notification, Respondent shall obtain and present to U.S. EPA for approval a revised form of financial assurance (otherwise acceptable under this Section) that reflects such cost increase. The financial assurance instruments should be sent to the U.S. EPA Region 5 Financial Management Officer, with a copy to U.S. EPA's project coordinator. Respondent's inability to demonstrate financial ability to complete the Work shall in no way excuse performance of any activities required under this Settlement Agreement.

100. If Respondent seeks to ensure completion of the Work through a guarantee pursuant to Subparagraph 98.e. or 98.f. of this Settlement Agreement, Respondent shall (i) demonstrate to U.S. EPA's satisfaction that the guarantor satisfies the requirements of 40 C.F.R. § 264.143(f); and (ii) resubmit sworn statements conveying the information required by 40 C.F.R. § 264.143(f) annually, on the anniversary of the Effective Date, to U.S. EPA. For the purposes of this Settlement Agreement, wherever 40 C.F.R. § 264.143(f) references "sum of current closure and post-closure costs estimates and the current plugging and abandonment costs estimates," the current cost estimate of \$ 3,000,000 for the Work at the Sites shall be used in relevant financial test calculations.

101. If, after the Effective Date, Respondent can show that the estimated cost to complete the remaining Work had diminished below the amount set forth in Paragraph 98 of this Section, Respondent may, on any anniversary date of the Effective Date, or at any other time agreed to by the Parties, reduce the amount of the financial security provided under this Section to the estimated cost of the remaining Work to be performed. Respondent shall submit a proposal for such reduction to U.S. EPA, in accordance with the requirements of this Section, and may reduce the amount of the security after receiving written approval from U.S. EPA. In the event of a dispute, Respondent may seek dispute resolution pursuant to Section XV (Dispute Resolution) and may reduce the amount of security in accordance with U.S. EPA's written decision resolving the dispute.

102. Respondent may change the form of financial assurance provided under this Section at any time, upon notice to and prior written approval by U.S. EPA, provided that U.S. EPA determines that the new form of assurance meets the requirements of this Section. In the event of a dispute, Respondent may change the form of the financial assurance only in accordance with the written decision resolving the dispute.

## **XXVII. SEVERABILITY/INTEGRATION/APPENDICES**

103. If a court issues an Order that invalidates any provision of this Settlement Agreement or finds that Respondent has sufficient cause not to comply with one or more provisions of this Settlement Agreement, Respondent shall remain bound to comply with all provisions of this Settlement Agreement not invalidated or determined to be subject to a sufficient cause defense by the court's Order.



104. This Settlement Agreement, including its appendices, and any deliverables, technical memoranda, specifications, schedules, documents, plans, reports (other than progress reports), etc. that will be developed pursuant to this Settlement Agreement and become incorporated into and enforceable under this Settlement Agreement 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 appendices are attached to and incorporated into this Settlement Agreement:

- “Appendix A” is the SOW.
- “Appendix B” contains maps of each Site.
- “Appendix C” is Site numbers

## **XXVIII. ADMINISTRATIVE RECORD**

105. U.S. EPA will determine the contents of the administrative record file for each Site for selection of the remedial action. Respondent shall submit to U.S. EPA documents developed during the course of each RI/FS upon which selection of the response action may be based. Upon request of U.S. EPA, Respondent shall provide copies of plans, task memoranda for further action, quality assurance memoranda and audits, raw data, field notes, laboratory analytical reports and other reports. Upon request of U.S. EPA, Respondent shall additionally submit any previous studies conducted under state, local or other federal authorities relating to selection of the response action, and all communications between Respondent and state, local or other federal authorities concerning selection of the response action. At U.S. EPA’s discretion, Respondent shall establish a community information repository at or near any or each Site, to house one copy of the administrative record.

## **XXIX. EFFECTIVE DATE AND SUBSEQUENT MODIFICATION**

106. This Settlement Agreement shall be effective the day the Settlement Agreement is signed by U.S. EPA’s Director of the Superfund Division or his/her delegatee.

107. This Settlement Agreement may be amended by mutual agreement of U.S. EPA and Respondent. Amendments shall be in writing and shall be effective when signed by U.S. EPA. U.S. EPA Project Coordinators do not have the authority to sign amendments to the Settlement Agreement.

108. No informal advice, guidance, suggestion, or comment by the U.S. EPA Project Coordinator or other U.S. EPA representatives regarding reports, plans, specifications, schedules, or any other writing 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.

### **XXX. NOTICE OF COMPLETION OF WORK**

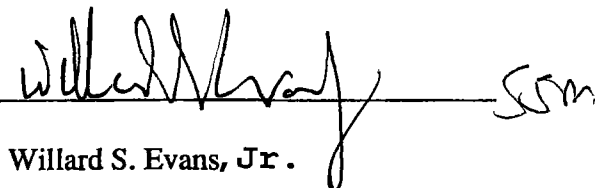
109. When U.S. EPA determines that all Work has been fully performed for any specific Site covered by this Settlement Agreement, with the exception of any continuing obligations required by this Settlement Agreement, including but not limited to payment of Future Response Costs and record retention, U.S. EPA will provide written notice to Respondent. If U.S. EPA determines that any such Work has not been completed in accordance with this Settlement Agreement, U.S. EPA will notify Respondent, provide a list of the deficiencies, and require that the Respondent modify the RI/FS Planning Documents or other work plan if appropriate in order to correct such deficiencies. Respondent shall implement the modified and approved RI/FS Planning Documents or other approved work plan and shall submit the required deliverable(s) in accordance with the U.S. EPA notice. Failure by Respondent to implement the approved modified RI/FS Planning Documents or other work plan shall be a violation of this Settlement Agreement.

110. When U.S. EPA determines that all Work has been fully performed for all Sites covered by this Settlement Agreement, with the exception of any continuing obligations required by this Settlement Agreement, including but not limited to payment of Future Response Costs and record retention, U.S. EPA will provide written notice to Respondent.

The Undersigned Party enters into this Administrative Settlement Agreement and Order on Consent for Remedial Investigations and Feasibility Studies in the matter of The Peoples Gas Light and Coke Company Sites in Chicago, Illinois.

Agreed this 13 day of October, 2008.

For Respondent THE PEOPLES GAS LIGHT AND COKE COMPANY

Signature: 

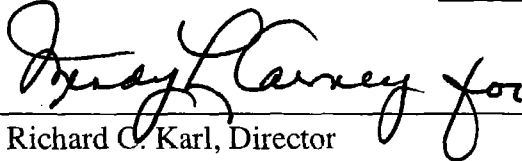
Name: Willard S. Evans, Jr.

Title: President

Address: 130 East Randolph Drive  
Chicago Illinois 60601

Administrative Settlement Agreement and Order on Consent for Remedial Investigations and Feasibility Studies in the matter of the Peoples Gas Light and Coke Company Sites in Chicago, Illinois.

It is so ORDERED AND AGREED this 31<sup>st</sup> day of OCTOBER, 2008.

BY:  for DATE: 10/31/08

Richard C. Karl, Director  
Superfund Division  
U.S. Environmental Protection Agency  
Region 5

EFFECTIVE DATE: 10/31/08

# APPENDIX A

**STATEMENT OF WORK  
FOR REMEDIAL INVESTIGATIONS AND FEASIBILITY STUDIES  
AT FOUR PEOPLES GAS MGP SITES IN CHICAGO, ILLINOIS:  
NORTH BRANCH, SOUTH BRANCH, CRAWFORD AND NORTH SHORE AVENUE**

**I. PURPOSE**

This Statement of Work (SOW) sets forth the requirements for conducting a Remedial Investigation and Feasibility Study (RI/FS) at four Peoples Gas manufactured gas plant (MGP) Sites located in Chicago, Illinois.

- The North Branch Site includes the Division Street Station Operable Unit, located at 1241 West Division Street, Chicago, Illinois; the North Station Operable Unit located in the area bounded by North Crosby, West Division, and West Hobbie Streets and the North Branch Canal which is part of the Chicago River system in Chicago, Illinois; and the Willow Street/Hawthorne Avenue Station Operable Unit located at the intersection of Willow Street and North Kingsbury Street in Chicago, Illinois. Each of these operable units also includes any adjacent or nearby areas of the North Branch of the Chicago River where hazardous substances, pollutants or contaminants associated with former MGP operations on the upland portions of such operable units have come to be located.
- The South Branch Site includes the 22<sup>nd</sup> Street Station Upland Operable Unit located at 2200 South Racine Avenue, Chicago, Illinois; the Hough Place Station Upland Operable Unit located at 2500 S. Corbett St., Chicago, Illinois; the Pitney Court Station Upland Operable Unit located at 3052 Pitney Court, Chicago, Illinois; the South Station Upland Operable Unit located near the intersection of Eleanor and Loomis Streets, Chicago, Illinois; the Throop Street Station Upland Operable Unit located at the intersection of South Throop Street, South Eleanor Street, and West 25th Street, Chicago, Illinois; and the South Branch Site River Operable Unit, which includes any adjacent or nearby areas of the South Branch of the Chicago River where hazardous substances, pollutants or contaminants associated with former MGP operations at such upland operable units have come to be located.
- The Crawford Site includes the Crawford Station located at 3500 South Pulaski Road, Chicago, Illinois and any adjacent or nearby areas of the Chicago Sanitary and Ship Canal where hazardous substances, pollutants or contaminants associated with former MGP operations at the Crawford Station have come to be located.
- The North Shore Avenue Site includes the North Shore Avenue Station located in the Rogers Park Township of Chicago, Illinois and any adjacent or nearby areas of the North Shore Avenue Station where hazardous substances, pollutants or contaminants associated with former MGP operations at the North Shore Avenue Station have come to be located.

Each RI Report shall fully evaluate the nature and extent of hazardous substances, pollutants or contaminants at and/or from the Site or operable unit. Each RI Report shall also assess the risk which these hazardous substances, pollutants or contaminants present for human health and the environment. Each RI Report shall provide sufficient data to develop and evaluate effective remedial alternatives. Each FS Report shall evaluate alternatives for addressing the impact to human health and the environment from hazardous substances, pollutants or contaminants at the Site or operable unit.

The Respondent shall prepare and complete each of the RI and FS Reports in compliance with the Administrative Order on Consent (AOC), this SOW, the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), as amended, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (40 C.F.R. Part 300) as amended, and all requirements and guidance for RI/FS studies and reports, including but not limited to EPA Superfund *Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA* (EPA/540/G-89/004, October 1988) (RI/FS Guidance), and any other guidance that the United States Environmental Protection Agency (EPA) uses in conducting or submitting deliverables for a RI/FS. Exhibit B sets forth a partial list of guidance used by EPA for a RI/FS.

The Respondent shall furnish all personnel, materials, and services necessary for, or incidental to, performing the RI/FS at each Site, except as otherwise specified herein.

This SOW is intended to achieve expedited, cost-effective RIs and FSs at the Sites and operable units, using iterative approaches, flexible planning, and Multi-Site documents to be subsequently tailored to each MGP Site as appropriate. All phases of the RIs and FSs will be a collaborative process between the Respondent and EPA, with an opportunity for the participation of IEPA. The parties will meet and confer on a regular basis and seek to anticipate and resolve key issues in advance of document development and completion.

## **II. DOCUMENT REVIEW**

The Respondent shall submit all documents or deliverables required as part of this SOW to the EPA, with a copy(ies) to the Illinois Environmental Protection Agency (IEPA), for review and approval in accordance with Section X of the AOC.

To support document development and review, the parties will use a series of meetings and calls. During scoping of the Multi-Site and Site-Specific tasks and/or when preparing a draft document for submittal, the Respondent shall meet or confer with EPA, with an opportunity for IEPA to participate, to discuss all project planning decisions, special concerns, and/or preliminary findings. After receipt of a draft document for review and approval in accordance with Section X of the AOC, EPA, at its sole discretion, may meet or confer with Respondent to give preliminary Agency feedback on the document.

### **III. SCOPE**

The Respondent shall complete the following tasks as part of the RI/FS for each Site:

- Task 1: Project Scoping and RI/FS Planning Documents
- Task 2: Community Relations and Technical Assistance Plan
- Task 3: Site Characterization
- Task 4: Remedial Investigation Report (including human health and ecological risk assessment)
- Task 5: Treatability Studies (if needed)
- Task 6: Development and Screening of Alternatives (Technical Memoranda)
- Task 7: Detailed Analysis of Alternatives (FS Report)
- Task 8: Progress Reports

Details regarding the aforementioned eight tasks are specified below. It is expected that the Respondent will conduct each task (as appropriate) for each of the Peoples Gas MGP Sites. However, where a task and/or a document may be applicable to more than one Site, the Respondent may combine tasks to address multiple Sites with the approval of EPA.

#### **TASK 1: PROJECT SCOPING AND RI/FS PLANNING DOCUMENTS**

##### **1.1. Site Background**

The Respondent shall gather and analyze the existing Site background information and shall conduct a Site visit to assist in planning the scope of the RI/FS.

###### **1.1.1. Ongoing Work**

There is ongoing work at three upland operable units within the South Branch Site: the 22<sup>nd</sup> Street Station Upland Operable Unit, the Hough Place Station Upland Operable Unit and the Pitney Court Station Upland Operable Unit. This work is being conducted by Respondent under the Administrative Settlement Agreement and Order on Consent for Removal Action entered into between Respondent and U.S. EPA on June 5, 2007. The need for any additional investigation work at an upland operable unit with ongoing work will be determined in the Site – Specific Work Plan for such operable unit. The need for any additional response work in an area of ongoing work will be evaluated in the relevant FS Report for such operable unit.

For each Site with ongoing work, including ongoing monitoring and/or operation and maintenance of existing systems, the Respondent shall continue any such ongoing work unless modifications are approved in writing by EPA. Reporting of any such ongoing work will be in accordance with the Schedule in Exhibit A to this SOW. As appropriate, reporting of any such ongoing work will be included in the monthly and annual progress reports in accordance with the requirements of Task 8, below.

###### **1.1.2. Previous Work**

For each Site or operable unit where previous clean up work has occurred, Respondent shall:



### **1.1.2.1. Assess Previous Work**

For each Site or operable unit where environmental clean up work has previously been conducted either voluntarily or under a local, State or federal program, the Respondent shall assess the previous work with respect to the extent to which the risk to human health and the environment from hazardous substances, pollutants or contaminants has been reduced or eliminated (considering EPA's Superfund goals to protect public health, welfare or the environment) and the need for additional work (either additional response actions and/or further investigation) to further eliminate such risks.

### **1.1.2.2. Completion Report**

For those areas and/or media at a Site or operable unit which Respondent asserts that the necessary response actions have been completed prior to the effective date of this Agreement, the Respondent shall prepare a Completion Report with certification and documentation to establish that the areas and/or media do not constitute a threat to public health, welfare or the environment, and that further remedial measures and/or other response actions are not necessary. For those areas and/or media at a Site or operable unit which Respondent asserts that the previous work did not sufficiently protect public health, welfare or the environment, the Respondent shall describe what additional work is necessary. Any such additional work shall be incorporated into the RI/FS Planning Documents. Historical data shall be submitted electronically according to EPA Region 5 specifications.

### **1.1.2.3. EPA's Review and Determination**

EPA, after a reasonable opportunity for comment by IEPA, will review each Completion Report to ascertain the adequacy of the documentation and to determine whether, based on information and conditions known by EPA at that time, all appropriate response actions have been implemented at the areas and/or media addressed, and whether the areas and/or media continues to present any threat to public health, welfare or the environment.

- **EPA Determination that No Further Response Action is Required.** Based on information and conditions known by EPA at that time, if EPA's project manager determines that no further response action is necessary, EPA's project manager shall inform the Respondent in writing. Because EPA's project manager is not delegated the authority to make remedy decisions, any such determination shall be subject to Agency review and approval in a subsequent ROD for the relevant Site or operable unit.
- **EPA Determination that Additional Response Action may be Required.** If EPA determines that conditions described in a Completion Report are not protective of public health, welfare or the environment, or that documentation is inadequate to make a protectiveness determination, EPA shall so notify the Respondent. The Respondent shall address any such inadequacies in the RI/FS Planning Documents.

### **1.1.3. Collect and Analyze Existing Data**

Before planning the RI/FS activities, the Respondent shall thoroughly compile and review all existing Site data. For Sites where environmental clean up work has not been conducted, but environmental investigation work has been performed, the Respondent may summarize and document the data collected to support the site-specific RI planning. Historical data shall be submitted electronically according to EPA Region 5 specifications. Because the Sites differ in available information, a site-specific determination will be made by EPA as to what historical data must be submitted electronically. Existing Site data includes presently available data relating to the varieties and quantities of hazardous substances, pollutants and contaminants at the Site, past disposal practices, the results of previous sampling activities, and information about past response actions and residual contamination at the Site.

### **1.1.4. Conduct Site Visits**

The Respondent shall visit each Site during the project scoping phase. The Respondent shall coordinate visits to all Sites with the EPA's project manager, and IEPA shall be invited to attend.

## **1.2. Multi-Site RI and FS Documents**

In accordance with the Schedule in Exhibit A to this SOW, the Respondent shall submit draft Multi-Site RI and FS Documents to EPA, with copies to the IEPA, for review and approval in accordance with Section X of the AOC. Prior to submittal of the Multi-Site RI and FS documents, the Respondent shall meet or confer with EPA, with an invitation to IEPA to participate, to discuss the scope and likely content of each of the documents. The Respondent shall prepare the Multi-Site RI/FS Planning documents to be consistent with applicable portions of the "Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA," October, 1988. Any documents that are required to be submitted under this Settlement Agreement that have been submitted by Respondent pursuant to the 2007 Engineering Evaluation/Cost Analysis AOC need not be resubmitted after the date that this Settlement Agreement supersedes the 2007 AOC, unless EPA determines that such submittal is inadequate. The Multi-Site documents shall set forth general approaches and concepts with the intent of streamlining preparation of work plans and minimizing review times for future deliverables. An additional intention is to promote a consistent approach to investigate and assess actual or potential contaminant releases between the Sites, as appropriate. A Site-Specific Work Plan shall be prepared for each Site, based on site-specific conditions, but incorporating the Multi-Site documents by reference, modified as appropriate.

### **1.2.1. Multi-Site RI Documents**

#### **1.2.1.1. Multi-Site Field Sampling Plan**

The Respondent shall prepare the Multi-Site Field Sampling Plan (FSP) portion of the RI Planning Documents to ensure that sample collection and analytical activities are conducted in accordance with technically acceptable protocols and that the data meet Data Quality Objectives as established in the Multi-Site Quality Assurance Project Plan (QAPP) and FSP. All sampling

and analyses performed shall conform to EPA direction, approval, and guidance regarding sampling, quality assurance/quality control (QA/QC), data validation, and chain of custody procedures. This document shall provide standard operating procedures (SOPs) for sampling activities. Site-Specific Work Plans will include supplemental SOPs if necessary, based on site specific conditions.

To the extent appropriate, the Multi-Site FSP will incorporate elements of dynamic field activities. Each Site-Specific Work Plan shall incorporate the elements of dynamic field activities set forth in the Multi-Site FSP, to the extent appropriate, based on site specific conditions. Dynamic field activities will be used to streamline Site activities with real-time data and real-time decisions in accordance with site specific QA/QC requirements. This approach, sometimes called the Triad approach, involves systematic planning, a dynamic work plan strategy, and real time field measurements. Dynamic field activities will be conducted consistent with OSWER No. 9200.1-40, *Using Dynamic Field Activities for On-Site Decision Making: A Guide for Project Managers*.

#### **1.2.1.2. Multi-Site Quality Assurance Project Plan (QAPP)**

The Respondent shall prepare a Multi-Site QAPP that covers sample analysis and data handling for samples collected during the RI, based on the AOC and guidance provided by EPA. The Respondent shall prepare the QAPP in accordance with “EPA Requirements of Quality Assurance Project Plans (QA/R-5)” (EPA/240/B-01/003, March 2001), “EPA Guidance for Quality Assurance Project Plans (QA/G-5)” (EPA/600/R-02/009, December 2002), and the Uniform Federal Policy for Quality Assurance Project Plans (UFP-QAPP) Manual (EPA/505/B-04/900A, March 2005).. The QAPP may include Field-Based Analytical Methods, if appropriate and scientifically defensible.

The Respondent shall demonstrate, in advance to EPA’s satisfaction, that each laboratory it may use is qualified to conduct the proposed work. This includes use of methods and analytical protocols for the chemicals of concern in the media sampled within detection and quantification limits consistent with both QA/QC procedures and data quality objectives (DQO) approved in the QAPP. Site-specific DQOs for each Site will be detailed in the Site-Specific Work Plan. The laboratory must have and follow an approved QA program. If a laboratory not in the Contract Laboratory Program is selected, methods consistent with CLP methods that would be used at the Sites for the purposes proposed and QA/QC procedures approved by EPA shall be used. The Respondent shall only use laboratories which have a documented Quality Assurance Program which complies with ANSI/ASQC E-4 1994, “Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs,” (American National Standard, January 5, 1995) and “EPA Requirements for Quality Management Plans (QA/R-2)” (EPA/240/B-01-002, March 2001) or equivalent documentation as determined by EPA.

Upon request by EPA, the Respondent shall have its laboratory analyze samples submitted by EPA for quality assurance monitoring. The Respondent shall provide EPA with the QA/QC procedures followed by all sampling teams and laboratories performing data collection and/or analysis. The Respondent shall also ensure the provision of analytical tracking information

consistent with OSWER Directive No. 9240.0-2B, *Extending the Tracking of Analytical Services to PRP-Lead Superfund Sites*.

The Respondent shall participate in a pre-QAPP meeting or conference call with EPA. The purpose of this meeting or conference call is to discuss QAPP requirements and obtain any clarification needed to prepare the Multi-Site QAPP.

#### **1.2.1.3. Generalized Conceptual Site Model**

The Respondent shall prepare a generalized Conceptual Site Model (CSM) that is applicable to former MGP Sites. The generalized CSM shall show potential contaminant sources, fate and transport routes, and exposures pathways for MGP Sites. Site-specific information will be used to refine the generalized CSM to tailor it for each Site. Evaluation of each site-specific CSM will be done in an iterative fashion, starting with the RI planning documents and continuing through completion of the FS.

#### **1.2.1.4. Risk Assessment Framework**

The Respondent shall prepare a Risk Assessment (RA) Framework which will be the basis for performing risk assessments at each Site. The RA Framework will be based on the generalized CSM. The RA Framework will include provisions for performing the ecological and human health risk assessments. At a minimum, the RA framework shall include:

- A discussion of the role of a baseline Risk Assessment
- Likely contaminants of concern (COCs)
- Potential human health exposure populations and pathways
- Potential exposure assumptions for potentially exposed populations
- Target species for ecological risk
- Potential ecological exposure pathways

To the extent possible, the RA Framework will also discuss the role of screening values, benchmarks and guidelines; and may discuss a process for establishing contaminant levels or ranges that are protective of human health and the environment.

#### **1.2.1.5. Multi-Site Health and Safety Plan**

The Respondent shall prepare a Multi-Site Health and Safety Plan (HSP). Each Site-Specific Work Plan shall be based on the Multi-Site HSP, modified as necessary to reflect site-specific conditions. The HSP shall conform to the Respondent's health and safety program and comply with the Occupational Safety and Health Administration (OSHA) regulations and protocols outlined in 29 C.F.R. Part 1910. The HSP shall be prepared in accordance with EPA's Standard Operating Safety Guide (PUB 9285.1-03, PB 92-963414, June 1992). The HSP shall include the 11 elements described in the RI/FS Guidance such as a health and safety risk analysis, a description of monitoring and personal protective equipment, medical monitoring, and Site control. EPA does not "approve" the Respondent's HSP, but rather EPA reviews it to ensure that all the necessary elements are included, and that the plan provides for the protection of human

health and the environment, and after that review provides comments as may be necessary and appropriate. The safety plan must, at a minimum, follow the EPA's guidance document *Standard Operating Safety Guides* (Publication 9285.1-03, PB92-963414, June 1992).

## **1.2.2. Multi-Site FS Documents**

### **1.2.2.1. Preliminary Remedial Technology Screening**

The Respondent shall develop general response actions and a preliminary list of remedial technologies to address contaminated soil, sediments, and groundwater at the MGP Sites that shall consist of, but is not limited to, treatment technologies, removal and off-site treatment/disposal, removal and on-site disposal, and in-place containment. This initial screening may include technologies for management of possible residuals or by-products (e.g., water or air). An initial screening of remedial technologies will be conducted in accordance with EPA Guidance (Exhibit B), including Contaminated Sediment Remediation Guidance for Hazardous Waste Sites, December 2005.

### **1.2.2.2. Preliminary List of Possible ARARS**

The Respondent will propose preliminary list of possible state and federal applicable or relevant and appropriate requirements (ARARs), including chemical-specific, location-specific and action-specific, as appropriate, which may apply to the circumstances and array of potential remedies at MGP Sites. This Preliminary ARARs document will be further refined in site-specific alternatives screening and FS documents.

### **1.2.2.3. Preliminary Permitting/Equivalency Requirements**

The Respondent will provide a preliminary analysis of likely permit or permit equivalency requirements. The preliminary analysis will focus on substantive requirements and will discuss potential waivers, as appropriate.

## **1.3. Site-Specific Work Plans**

Site-Specific Work Plans for a Site or operable unit shall be prepared to accomplish the following:

- A remedial investigation that fully determines the nature and extent of the release or threatened release of hazardous substances, pollutants, or contaminants at and from the Site or operable unit. In performing this investigation, the Respondent shall gather sufficient data, samples, and other information to fully characterize the nature and extent of the contamination at the Site, to support the human health and ecological risk assessments, and to provide sufficient data for the identification and evaluation of remedial alternatives for each Site.
- A feasibility study that identifies and evaluates alternatives for remedial action to protect human health and the environment by preventing, eliminating, controlling or mitigating

the release or threatened release of hazardous substances, pollutants, or contaminants at and from the Site or operable unit.

The Site-Specific Work Plan shall incorporate by reference the Multi-Site RI Documents, modified as appropriate for site-specific concerns, and include a detailed description of the tasks the Respondent shall perform, the information needed for each task, a detailed description of the information the Respondent shall produce during and at the conclusion of each task, and a description of the work products that the Respondent shall submit to EPA and IEPA including the deliverables set forth in this SOW; a schedule for each of the required activities; and a project management plan including a data management plan (e.g., requirements for project management systems and software, minimum data requirements, requirements for submittal of electronic data, data format and backup data management, unless otherwise covered by the Multi-Site RI documents).

The Site-Specific Work Plan shall include any appropriate site-specific modifications to the Multi-Site RI Documents, and include: DQOs; number and types of sampling locations; analytical, physical and/or biological tests; a site-specific CSM; any site-specific risk assessment considerations; preliminary objectives for the remedial action at the Site; a description of the Site management strategy developed by the Respondent and EPA during scoping; and data needs for fully characterizing the nature and extent of the contamination at the Site, evaluating risks and developing and evaluating remedial alternatives. The Site-Specific Work Plan shall reflect coordination with treatability study requirements, if any. In addition, the Site-Specific Work Plan shall include the following:

#### **1.3.1. Site Background**

The Site Background section shall include a brief summary of the Site location, description, physiography, hydrology, geology, demographics, ecological, cultural and natural resource features, Site history, description of previous investigations and responses conducted at the Site by local, state, federal, or private parties, and Site data evaluations and project planning completed during the scoping process.

The Site background section shall discuss areas of waste handling and disposal activities, the locations of existing groundwater monitoring wells, if any, and previous surface water, sediment, soil, groundwater, and air sampling locations. The Site Background section shall include a summary description of available data and identify areas where hazardous substances, pollutants or contaminants were detected and the detected levels. The Site Background section shall include tables and/or figures displaying the minimum and maximum levels of detected hazardous substances, pollutants or contaminants in Site areas and media. The Site Background may refer to the Completion Report, as appropriate.

#### **1.3.2. Data Gap Description/Data Acquisition**

As part of the Site-Specific Work Plan, the Respondent shall analyze the currently available data. The Respondent shall identify those areas of the Site or operable unit and nearby areas that require additional data and evaluation in order to define the extent of hazardous substances,

pollutants or contaminants. The Site-Specific Work Plan shall include a description of the number, types, and locations of samples to be collected. As needed, the Site-Specific Work Plan shall include an environmental program to accomplish the following:

- Site Reconnaissance. The Respondent shall conduct, as appropriate:
  - Site surveys including property, boundary, utility rights-of-way, and topographic information
  - Land survey
  - Topographic mapping
  - Field screening
  
- Geological Investigations (Soils and Sediments). The Respondent shall conduct geological investigations to determine the extent of hazardous substances, pollutants or contaminants (including waste materials) in surface soils, subsurface soils and sediments at the Site. As part of this geological investigation Respondent shall, as appropriate:
  - Collect surface soil samples
  - Collect subsurface soil samples
  - Perform soil boring and permeability sampling
  - Collect sediment samples
  - Survey soil gases
  - Test pit
  - Identify real-world horizontal, vertical, and elevation coordinates for all samples and Site features in accordance with EPA Region 5 electronic data requirements
  
- Air Investigations. The Respondent shall conduct air investigations to determine the extent of atmospheric hazardous substances, pollutants or contaminants at and from the Site, which shall include, as appropriate:
  - Collect air samples
  - Establish air monitoring stations
  
- Hydrogeological Investigations (Groundwater). The Respondent shall conduct hydrogeological investigations of groundwater to determine the horizontal and vertical distribution of hazardous substances, pollutants or contaminants in the groundwater and the extent, fate and transport of any groundwater plumes containing hazardous substances, pollutants or contaminants. The hydrogeological investigation shall include, as appropriate:
  - Install well systems
  - Collect samples from upgradient, downgradient, private and municipal wells
  - Collect samples during drilling (e.g., HydroPunch or equivalent)
  - Perform hydraulic tests (such as pump tests, slug tests and grain size analyses)
  - Measure groundwater elevations and determine horizontal and vertical sample locations in accordance with EPA Region 5 electronic data requirements

- Modeling
  - Determine the direction of regional and local groundwater flow
  - Identify the local uses of groundwater including the number, location, depth and use of nearby private and municipal wells
- Hydrogeological Investigations (Surface Water). The Respondent shall conduct hydrogeological investigations to determine the nature and extent of contamination of surface water from the Site. The hydrogeological investigation shall include, as appropriate:
    - Collect samples
    - Measure surface water elevation and depth
    - Evaluate flow and hydrodynamics
- Geophysical Investigation. The Respondent shall conduct geophysical investigations to delineate waste depths, thicknesses and volume; the elevations of the underlying natural soil layer and the extent of cover over fill areas including the following, as appropriate:
    - Magnetometer
    - Electromagnetic
    - Ground-penetrating Radar
    - Seismic refraction
    - Resistivity
    - Site meteorology
    - Cone penetrometer survey
    - Remote sensor survey
    - Radiological investigation
    - Test pits, trenches and soil borings
- Ecological Investigation. The Respondent shall conduct ecological investigations to assess the impact to aquatic and terrestrial ecosystems from the disposal, release and migration of hazardous substances, pollutants or contaminants at the Site including, as appropriate:
    - Wetland and habitat delineation
    - Wildlife observations
    - Community characterization
    - Endangered Species identification
    - Biota sampling and population studies
- Dispose of Investigation-Derived Waste. The Respondent shall characterize and dispose of investigation-derived wastes in accordance with local, state, and federal regulations as specified in the FSP (see the Fact Sheet, *Guide to Management of Investigation-Derived Wastes*, 9345.3-03FS (January 1992)).
- Evaluate and Document the Need for Treatability Studies. If the Respondent or EPA identify remedial actions that involve treatment, the Respondent shall include treatability studies as outlined in Task 5 of this SOW unless the Respondent satisfactorily demonstrates to EPA that such studies are not needed. When treatability studies are



needed, the Respondent shall plan initial treatability testing activities (such as research and study design) to occur concurrently with Site characterization activities.

## **TASK 2: COMMUNITY INVOLVEMENT SUPPORT AND TECHNICAL ASSISTANCE PLANS**

### **2.1. Community Involvement Support**

EPA has the responsibility of developing and implementing community involvement activities for each Site. The critical community involvement planning steps performed by EPA include conducting community interviews and developing a Community Involvement Plan. Although implementing the Community Involvement Plan is the responsibility of EPA, the Respondent, if directed by EPA, shall assist by providing information regarding the Site's history; participating in public meetings; assisting in preparing fact sheets for distribution to the general public; or conducting other activities approved by EPA. All PRP-conducted community involvement activities shall be planned and developed in coordination with EPA.

### **2.2. Technical Assistance Plan (TAP)**

In addition to any assistance with community involvement activities, if requested by EPA, the Respondent shall prepare a Technical Assistance Plan (TAP) that will provide and administer \$50,000 at each Site, for a qualified community group to hire Technical Advisors, independent from the Respondent, to help interpret and comment on Site-related documents developed under this SOW and through EPA's issuance of the Record of Decision. After a request by EPA, the Respondent shall submit to EPA its TAP for the Site for Agency approval, in accordance with the Schedule in Exhibit A to this SOW.

As part of the TAP, the Respondent shall propose methods, including an application process, minimum eligibility requirements and selection criteria for awarding, and administering the funds above.

Any eligible group shall be: 1) a group of people who may be affected by a release or threatened release at the Site; 2) incorporated as a nonprofit organization for the purposes of the Site or otherwise established as a charitable organization that operates within the geographical range of the Site and is already incorporated as a nonprofit organization; and 3) able to demonstrate its capability to adequately and responsibly manage any funds awarded. Any group is ineligible if it is: 1) a potentially responsible party (PRP) at the Site or represents such a PRP or is a group whose ability to represent the interests of the affected individuals might be limited as a result of receiving money or services from a PRP; 2) affiliated with a national organization; 3) an academic institution; 4) a political subdivision; or 5) a group established or presently sustained by government entities, a PRP, or any ineligible entity. Selection criteria should be consistent with 40 C.F.R. §35.4155. Funds may be awarded to only one qualified group at a time at each Site for purposes of this AOC and SOW.

Also as part of the TAP, the Respondent shall include a proposed plan for documenting the eligibility of the selected community group, and informing the group and EPA if it believes any

individual member is ineligible (consistent with 40 C.F.R. §35.4030) to participate in the group. Respondent shall also include a plan for informing the selected group of the activities that can and cannot be undertaken with Respondent's funds. The lists of eligible and ineligible activities should be consistent with 40 C.F.R. §35.4070 and §35.4075, respectively. The TAP shall also include a proposal for offering and, if accepted, transferring up to \$5,000 to the selected group to cover its estimated need for funds for an initial start-up period.

Also as part of the TAP, Respondent shall include a plan for providing assistance to the selected community group in the solicitation for an independent Technical Advisor. As long as the group documents its selection and the advisor selected by the group satisfies the requirements specified in 40 C.F.R. §35.4190 and §35.4195, Respondent shall accept the group's choice. Finally, Respondent shall include a proposed plan for negotiating a contract with the selected community organization and the independent Technical Advisor. The contract shall specify the duties of the Respondent, community group, and Technical Advisor, respectively, and establish a dispute resolution process. Respondent shall notify EPA of the provisions of the final contract.

The Respondent may hire a third party to coordinate and administer the TAP (hereinafter referred to as the TAP Coordinator). However, any such TAP Coordinator shall be approved by EPA. It is the Respondent's burden to demonstrate that the TAP Coordinator is qualified to perform this task. If the Respondent opts to hire a TAP Coordinator, then it shall submit in writing that person's name, title, and qualifications to EPA within 30 days after a request by EPA for submittal of a TAP for a Site. Additionally, as part of the TAP, Respondent shall designate an outreach coordinator who will be responsive to the public's inquiries and questions about the Site, including information about the application process and administration of the TAP. Respondent shall also propose a plan for arranging for and hosting meetings between its Outreach Coordinator, the community group, the Technical Advisor, and other interested individuals.

If the community group demonstrates, consistent with the criteria specified in 40 C.F.R. §35.4065, that it needs additional funds for TAP activity, then Respondent will provide the additional monies needed. Any unobligated funds shall revert to the Respondent upon EPA's issuance of the ROD based upon the RI/FS to be conducted pursuant to this SOW.

In accordance with the schedule in the EPA approved TAP, the Respondent shall select the TAP recipient; release \$5,000 in start-up funds; confirm the selection of the Technical Advisor, and finalize an appropriate contract with the selected community representative and the Technical Advisor. In addition, the Respondent shall provide EPA and IEPA with quarterly progress reports concerning the implementation of the TAP.

## **TASK 3: SITE CHARACTERIZATION**

### **3.1. Investigate and Define Site Physical and Biological Characteristics**

The Respondent shall implement the Site-Specific Work Plan and collect data on the physical and biological characteristics of the Site or operable unit and its surrounding areas including, as needed, the physical physiography, geology, and hydrology, and specific physical characteristics. This information will be ascertained through a combination of existing data, and physical measurements, observations, and sampling efforts and will be utilized to define potential transport pathways and human ecological receptor populations. In defining the Site's physical characteristics the Respondent will also obtain sufficient engineering data for the projection of contaminant fate and transport, and development and screening of remedial action alternatives, including information to assess treatment technologies.

The Respondent shall provide the RPM or the entity designated as the Project Coordinator in the AOC with a paper copy and an electronic copy (according to EPA Region 5 format specification) of laboratory data within the monthly progress reports and in no event later than 90 days after samples are shipped for analysis. In addition, the monthly progress reports will summarize field activities (including drilling locations, depths and field notes if requested by RPM), problems encountered, solutions to problems, and upcoming field activities.

Upon request by EPA, the Respondent shall allow EPA or its authorized representatives to take split and/or duplicate samples of any samples collected by the Respondent or their contractors or agents. The Respondent shall notify EPA not less than 15 business days in advance of any sample collection activity. EPA shall have the right to take any additional samples that it deems necessary.

### **3.2. Define Sources of Contamination**

The Respondent shall locate each source of contamination. For each location, Respondent shall determine the areal extent and depth of contamination by sampling in accordance with the approved plans. Respondent shall determine the physical characteristics and chemical constituents and their concentrations for all known and discovered sources of contamination. The Respondent shall conduct sufficient sampling to define the boundaries of the contaminant sources to the level established in the QAPP and DQOs. Defining the source of contamination will include analyzing the potential for contaminant release (e.g., long term leaching from soil), contaminant mobility and persistence, and characteristics important for evaluating remedial actions, including information to assess treatment technologies.

### **3.3. Describe the Nature and Extent/Fate and Transport of Contamination**

The Respondent shall gather information to describe the nature and extent of contamination as a step during the field investigation. To describe the nature and extent of contamination, the Respondent will utilize the information on Site physical and biological characteristics and sources of contamination to give a preliminary estimate of the contaminants that may have migrated. The Respondent will then implement an iterative monitoring program and any study

program identified in the work plan or sampling plan such that by using analytical techniques sufficient to detect and quantify the concentration of contaminants, the migration of contaminants through the various media at the Site can be determined. In addition, the Respondent shall gather data for calculations of contaminant fate and transport. This process is continued until the area and depth of contamination are characterized as established in the QAPP and DQOs.

### **3.3.1. Evaluate Site Characteristics**

The Respondent shall analyze and evaluate the data to describe: (1) Site physical and biological characteristics; (2) contaminant source characteristics; (3) nature and extent of contamination; and (4) contaminant fate and transport. Results of the Site physical characteristics, source characteristics, and extent of contamination analyses are utilized in the analysis of contaminant fate and transport. The Respondent shall evaluate the actual and potential magnitude of releases from the sources, and horizontal and vertical spread of contamination as well as mobility and persistence of contaminants. Where modeling is appropriate, such models shall be identified to EPA in a technical memorandum prior to their use. Upon request, all model data and programming, including any proprietary programs, shall be made available to EPA together with a sensitivity analysis. The RI data shall be presented electronically according to EPA Region 5 format requirements. Analysis of data collected for Site characterization will meet the DQOs developed in the QAPP and stated in the FSP (or revised during the RI).

### **3.3.2. Baseline Human Health Risk Assessment**

As an attachment to the RI Report, the Respondent shall submit a Site-Specific Baseline Human Health Risk Assessment Report to EPA, with a copy to the IEPA, for review and approval pursuant to Section X of the AOC. The Respondent shall conduct the baseline risk assessment to determine whether Site contaminants pose a current or potential risk to human health and the environment in the absence of any remedial action. The Site-Specific Baseline Risk Assessment will build on the RA Framework and major components will include contaminant identification, exposure assessment, toxicity assessment, and human health and ecological risk characterization.

Respondent shall conduct a baseline human health risk assessment that focuses on actual and potential risks to persons coming into contact with on-site hazardous substances, pollutants or contaminants as well as risks to the nearby residential, recreational and industrial worker populations from exposure to hazardous substances, pollutants or contaminants in groundwater, soils, sediments, surface water, air, and ingestion of contaminated organisms in nearby, impacted ecosystems. The human health risk assessment shall define central tendency and reasonable maximum estimates of exposure for current land use conditions and reasonable future land use conditions. The human health risk assessment shall use data from the Site and nearby areas to identify the contaminants of concern (COC), provide an estimate of how and to what extent human receptors might be exposed to these COCs, and provide an assessment of the health effects associated with these COCs. The human health risk assessment shall project the potential risk of health problems occurring if no cleanup action is taken at the Site and/or nearby areas, and establish target action levels for COCs (carcinogenic and non-carcinogenic).

Respondent shall conduct the human health risk assessment in accordance with EPA guidance including, at a minimum: “Risk Assessment Guidance for Superfund (RAGS), Volume I - Human Health Evaluation Manual (Part A),” Interim Final (EPA-540-1-89-002),” OSWER Directive 9285.7-01A; December 1, 1989; and “Risk Assessment Guidance for Superfund (RAGS), Volume I - Human Health Evaluation Manual (Part D, Standardized Planning, Reporting, and Review of Superfund Risk Assessments),” Interim, (EPA 540-R-97-033), OSWER 9285.7-01D, January, 1998 or subsequently issued guidance.

As appropriate, Respondent shall also conduct the human health risk assessment in accordance with the following additional guidance found in the following OSWER directives:

- 1) “Clarification to the 1994 Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities,” OSWER Directive 9200.4-27; August, 1998,
- 2) “Implementation of the Risk Assessment Guidance for Superfund (RAGS) Volume I - Human Health Evaluation Manual, (Part D, Standardized Planning, Reporting, and Review of Superfund Risk Assessments) (Interim),” OSWER Directive 9285.7-01D-1; December 17, 1997,
- 3) “Soil Screening Guidance: Technical Background Document,” OSWER Directive 9355.4-17A; May 1, 1996 and “Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites, OSWER Directive 9355.4; March 24, 2001,
- 4) “Soil Screening Guidance: User’s Guide,” Publication 9355.4-23; April, 1996,
- 5) “Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities,” OSWER Directive 9355.4-12; July 14, 1994,
- 6) “Guidance Manual for the Integrated Exposure Uptake Biokinetic (IEUBK) Model for Lead in Children,” Publication 9285.7-15-1; February, 1994, and associated, clarifying Short Sheets on IEUBK Model inputs, including but not limited to OSWER 9285.7-32 through 34, as listed on the OSWER lead internet site at [www.epa.gov/superfund/programs/lead/prods.htm](http://www.epa.gov/superfund/programs/lead/prods.htm),
- 7) “Integrated Exposure Uptake Biokinetic (IEUBK) Model for Lead in Children,” Version 0.99D, NTIS PB94-501517, 1994 or “Integrated Exposure Uptake Biokinetic (IEUBK) Model for Lead in Children,” Windows© version, 2001,
- 8) “Risk Assessment Guidance for Superfund: Volume I - Human Health Evaluation Manual: (Part B, Development of Risk-based Preliminary Remediation Goals),” Interim, OSWER Directive 9285.7-01B; December, 1991,
- 9) “Human Health Evaluation Manual, Supplemental Guidance: Standard Default Exposure Factors,” OSWER Directive 9285.6-03; March 25, 1991, and

- 10) "Exposure Factors Handbook," Volumes I, II, and III; August 1997 (EPA/600/P-95/002Fa, b, c).

Respondent shall also comply with the guidance on assessing human health risk associated with adult exposures to lead in soil as found in the following document: "Recommendations of the Technical Review Workgroup for Lead for an Interim Approach to Assessing Risks Associated with Adult Exposures to Lead in Soil," December, 1996. This document may be downloaded from the Internet at the following address: [www.epa.gov/superfund/programs/lead/prods.htm](http://www.epa.gov/superfund/programs/lead/prods.htm).

Additional applicable or relevant guidance may be used for the human health risk assessment only if approved by EPA.

Respondents shall prepare the Human Health Risk Assessment Report according to the guidelines outlined below:

- Hazard Identification (sources). The Respondent shall review available information on the hazardous substances present at the Site and identify the major contaminants of concern.
- Dose-Response Assessment. The Respondent shall select contaminants of concern based on their intrinsic toxicological properties.
- Conceptual Exposure/Pathway Analysis. The Respondent shall identify and analyze critical exposure pathways (e.g., drinking water). The proximity of contaminants to exposure pathways and their potential to migrate into critical exposure pathways shall be assessed.
- Characterization of Site and Potential Receptors. The Respondent shall identify and characterize human populations in the exposure pathways.
- Exposure Assessment. The exposure assessment will identify the magnitude of actual or potential human exposures, the frequency and duration of these exposures, and the routes by which receptors are exposed. The exposure assessment shall include an evaluation of the likelihood of such exposures occurring and shall provide the basis for the development of acceptable exposure levels. In developing the exposure assessment, the Respondent shall develop reasonable maximum estimates of exposure for both current land use conditions and potential land use conditions at the Site.
- Risk Characterization. During risk characterization, Respondent shall compare chemical-specific toxicity information, combined with quantitative and qualitative information from the exposure assessment, to measured levels of contaminant exposure levels and the levels predicted through environmental fate and transport modeling. These comparisons shall determine whether concentrations of contaminants at or near the Site are affecting or could potentially affect human health.

- Identification of Limitations/Uncertainties. The Respondent shall identify critical assumptions (e.g., background concentrations and conditions) and uncertainties in the report.
- CSM. Based on contaminant identification, exposure assessment, toxicity assessment, and risk characterization, the Respondent shall reevaluate the preliminary CSM.

### **3.3.3. Baseline Ecological Risk Assessment**

As an attachment to the RI Report, the Respondent shall submit a Baseline Ecological Risk Assessment Report to EPA, with a copy to the IEPA, for review and approval by EPA. In the Ecological Risk Assessment Report, the Respondent shall evaluate and assess the risk to the environment posed by Site contaminants. Respondent shall prepare the Ecological Risk Assessment Report in accordance with EPA guidance including, at a minimum: "Ecological Risk Assessment Guidance for Superfund, Process for Designing and Conducting Ecological Risk Assessments, (EPA-540-R-97-006, June 1997), OSWER Directive 9285.7-25 and as appropriate, shall follow the guidelines outlined below:

- Hazard Identification (sources). The Respondent shall review available information on the hazardous substances present at the Site and identify the major contaminants of concern.
- Dose-Response Assessment. The Respondent must select contaminants of concern based on their intrinsic toxicological properties.
- Conceptual Exposure/Pathway Analysis. Critical exposure pathways (e.g., surface water) shall be identified and analyzed. The proximity of contaminants to exposure pathways and their potential to migrate into critical exposure pathways shall be assessed.
- Characterization of Site and Potential Receptors. The Respondent shall identify and characterize environmental exposure pathways.
- Selection of Chemicals, Indicator Species, and End Points. In preparing the assessment, the Respondent will select representative chemicals, indicator species (species that are especially sensitive to environmental contaminants), and end points on which to concentrate.
- Exposure Assessment. In the exposure assessment, Respondent must identify the magnitude of actual or environmental exposures, the frequency and duration of these exposures, and the routes by which receptors are exposed. The exposure assessment shall include an evaluation of the likelihood of such exposures occurring and shall provide the basis for the development of acceptable exposure levels. In developing the exposure assessment, the Respondent shall develop reasonable maximum estimates of exposure for both current land use conditions and potential land use conditions at the Site.

- **Toxicity Assessment/Ecological Effects Assessment.** The toxicity and ecological effects assessment will address the types of adverse environmental effects associated with chemical exposures, the relationships between magnitude of exposures and adverse effects, and the related uncertainties for contaminant toxicity (e.g., weight of evidence for a chemical's carcinogenicity).
- **Risk Characterization.** During risk characterization, Respondent shall compare chemical-specific toxicity information, combined with quantitative and qualitative information from the exposure assessment, to measured levels of contaminant exposure levels and the levels predicted through environmental fate and transport modeling. These comparisons shall determine whether concentrations of contaminants at or near the Site are affecting or could potentially affect the environment.
- **Identification of Limitations/Uncertainties.** The Respondent shall identify critical assumptions (e.g., background concentrations and conditions) and uncertainties in the report.
- **CSM.** Based on information developed for the Baseline Ecological Risk Assessment, the Respondent shall reevaluate the preliminary CSM.

#### **3.4. Current and Future Land Uses and Reuse Assessment**

As an Attachment to the RI Report, Respondent shall submit a Memorandum to EPA for review and approval that evaluates the current and reasonably anticipated future land uses at the Site. The Memorandum shall identify: 1) past uses at the Site including title and lien information; 2) current uses of the Site and neighboring areas; 3) the owner's plans for the Site following cleanup and any prospective purchasers; 4) applicable zoning laws and ordinance; 5) current zoning; 6) applicable local area land use plans, master plans and how they affect the Site; 7) existing local restrictions on property; 8) property boundaries; 9) groundwater use determinations, wellhead protection areas, recharge areas and other areas identified in the state's Comprehensive Ground Water Protection Program; 10) flood plains, wetland, or endangered or threatened species; and 11) utility rights of way.

If EPA, in its sole discretion, determines that a Reuse Assessment is necessary, Respondent will perform the Reuse Assessment in accordance with EPA guidance, including, but not limited to: "Reuse Assessments: A Tool To Implement The Superfund Land Use Directive, OSWER 9355.7-06P, June 4, 2001 upon request of EPA. The Reuse Assessment should provide sufficient information to develop realistic assumptions of the reasonably anticipated future uses for the Site.

#### **TASK 4: REMEDIAL INVESTIGATION (RI) REPORT**

In accordance with the schedule in the EPA approved final RI/FS Planning Documents, the Respondent shall submit to EPA, with a copy to the IEPA, for review and approval pursuant to Section X of the AOC, an RI Report addressing all of the Site or operable unit and nearby areas. The RI Report shall be consistent with the AOC and this SOW. The RI Report shall accurately



establish the site characteristics such as media contaminated, extent of contamination, and the physical boundaries of the contamination. Pursuant to this objective, the Respondent shall obtain only the essential amount of detailed data necessary to determine the key contaminants' movement and extent of contamination. The key contaminants must be selected based on persistence and mobility in the environment and the degree of hazard. The key contaminants identified in the RI shall be evaluated for receptor exposure and an estimate of the key contaminants level reaching human or environmental receptors must be made. The Respondent shall use existing standards and guidelines such as drinking-water standards, water-quality criteria, and other criteria accepted by the EPA as appropriate for the situation, to evaluate effects on human receptors who may be exposed to the key contaminant(s) above appropriate standards or guidelines. Respondent shall complete the RI Report in accordance with the following requirements:

The Respondent shall submit an RI Report that builds on the Multi-Site RI Documents and includes site-specific findings, and which includes the following:

- Executive Summary
- Site Background. The Respondent shall assemble and review available facts about the regional conditions and conditions specific to the Site under investigation.
- Investigation (as applicable)
  - Site Reconnaissance
  - Field Investigation & Technical Approach
  - Chemical Analysis & Analytical Methods
  - Field Methodologies
  - Biological Investigation
  - Surface Water
  - Sediment
  - Soil Boring
  - Soil Sampling
  - Monitoring Well Installation
  - Groundwater Sampling
  - Hydrogeological Assessment
  - Air Sampling
  - Waste Investigation
  - Geophysical Investigation
- Site Characteristics (as applicable)
  - Geology
  - Hydrogeology
  - Meteorology
  - Demographics and Land Use
  - Ecological Assessment
  - Hydrodynamics

- Nature and Extent of Contamination
  - Contaminant Sources
- Fate and Transport
  - Transport Processes
  - Contaminant Migration Trends
- Human Health Assessment
  - Hazard Identification (sources)
  - Dose-Response Assessment
  - Prepare Conceptual Exposure/Pathway Analysis
  - Characterization of Site and Potential Receptors
  - Exposure Assessment
  - Risk Characterization
  - Identification of Limitations/Uncertainties
  - Selection of Chemicals, Indicator Species, and End Points
  - Toxicity Assessment/Ecological Effects Assessment
- Summary and Conclusions

## **TASK 5: TREATABILITY STUDIES**

If EPA or the Respondent determine that treatability testing is necessary, the Respondent shall conduct treatability studies as described in this Task 5 of this SOW. In addition, if applicable, the Respondent shall use the testing results and operating conditions in the detailed design of the selected remedial technology. The Respondent shall perform the following activities.

### **5.1. Determine Candidate Technologies and the Need for Testing**

The Respondent shall submit a Candidate Technologies and Testing Needs Technical Memorandum, to EPA with a copy to IEPA for review and approval by EPA, that identifies candidate technologies for a treatability studies program no later than at the time of submittal of the draft RI/FS Planning Documents. The list of candidate technologies shall cover the range of technologies required for alternatives analysis. The Respondent shall determine and refine the specific data requirements for the testing program during Site characterization and the development and screening of remedial alternatives.

#### **5.1.1. Conduct Literature Survey and Determine the Need for Treatability Testing**

Within the Candidate Technologies and Testing Needs Technical Memorandum, the Respondent shall conduct a literature survey to gather information on the performance, relative costs, applicability, removal efficiencies, operation and maintenance (O&M) requirements, and

implementability of candidate technologies. Respondent shall conduct treatability studies except where Respondent can demonstrate to EPA's satisfaction that they are not needed.

## **5.2. Treatability Testing and Deliverables**

### **5.2.1. Treatability Study Work Plan and Sampling and Analysis Plan (SAP)**

If EPA or the Respondent determine that treatability testing is necessary, EPA will decide on the type of treatability testing to use (e.g., bench versus pilot). At the request of EPA, and in accordance with the schedule in Exhibit A to this SOW, the Respondent shall submit a Treatability Study Work Plan and a SAP, or amendments to the Site-Specific Work Plan to EPA with a copy(ies) to the IEPA for review and approval pursuant to Section X of the AOC, that describes the Site background, the remedial technology(ies) to be tested, test objectives, experimental procedures, treatability conditions to be tested, measurements of performance, analytical methods, data management and analysis, health and safety, residual waste management, and a schedule. The Respondent shall document the DQOs for treatability testing as well. If pilot scale treatability testing is to be performed, the Treatability Study Work Plan shall describe pilot plant installation and start-up, pilot plant operation and maintenance procedures, operating conditions to be tested, a sampling plan to determine pilot plant performance, and a detailed health and safety plan. If testing is to be performed off-Site, the plans shall address all permitting requirements.

### **5.2.2. Treatability Study Health and Safety Plan**

If the Multi-Site Health and Safety Plan and Site-Specific Work Plan are not adequate for defining the activities to be performed during the treatability tests, the Respondent shall submit a separate or amended Health and Safety Plan. Task 1.2.1.5 of this SOW provides additional information on the requirements of the Health and Safety Plan. EPA and IEPA review, but do not "approve" the Treatability Study Health and Safety Plan.

### **5.2.3. Treatability Study Evaluation Report**

Following the completion of the treatability testing, the Respondent shall analyze and interpret the testing results in a technical report to EPA and IEPA. Respondent shall submit the treatability study report according to the schedule in the Treatability Study Work Plan. This report may be a part of the RI Report or submitted as a separate deliverable. The Treatability Study Evaluation Report shall evaluate each technology's effectiveness, implementability and cost, and actual results as compared with predicted results. The report shall also evaluate full scale application of the technology, including a sensitivity analysis identifying the key parameters affecting full-scale operation.

## **TASK 6: DEVELOPMENT AND SCREENING OF ALTERNATIVES**

The Respondent shall develop and screen an appropriate range of site-specific remedial alternatives that will be evaluated in the FS. The site-specific alternative array will build on the Multi-Site FS Documents, as appropriate. The site-specific range of alternatives shall include, as

appropriate, options in which treatment is used to reduce the toxicity, mobility, or volume of wastes, but which vary in the types of treatment, the amount treated, and the manner in which long-term residuals or untreated wastes are managed; options involving containment with little or no treatment; options involving both treatment and containment; and a no-action alternative. The Respondent shall perform the following activities as a function of the development and screening of remedial alternatives.

The Respondent shall prepare and submit to EPA and IEPA a technical memorandum for this task. A Site-Specific Alternatives Screening Technical Memorandum shall be submitted in accordance with the Schedule in Exhibit A to this SOW. Comments on the Site-Specific Alternatives Screening shall be addressed in the draft FS.

#### **6.1. Site-Specific Alternatives Screening Technical Memorandum**

The Site-Specific Alternatives Screening Technical Memorandum shall summarize the work performed and the results of each of the above tasks, and shall include an alternatives array summary. If required by EPA, the Respondent shall modify the alternatives array to assure that the array identifies a complete and appropriate range of viable alternatives to be considered in the detailed analysis. The Alternatives Screening Technical Memorandum shall document the methods, the rationale and the results of the alternatives screening process, and shall include:

##### **6.1.1. Remedial Action Objectives**

The Respondent shall develop site-specific Remedial Action Objectives (RAOs). Based on the baseline human health and ecological risk assessments, the Respondent shall document the site-specific RAOs which shall specify the contaminants and media of concern, potential exposure pathways and receptors, and contaminant level or range of levels (at particular locations for each exposure route) that are protective of human health and the environment. RAOs shall be developed by considering the factors set forth in 40 C.F.R. § 300.430(e)(2)(i).

##### **6.1.2. Identify Areas or Volumes of Media**

In the Site-Specific Alternatives Screening Technical Memorandum, the Respondent shall identify areas or volumes of media to which response actions may apply, taking into account requirements for protectiveness as identified in the remedial action objectives. The Respondent shall also take into account the chemical and physical characterization of the Site.

##### **6.1.3. Identify, Screen, and Document Remedial Technologies**

Based on the Preliminary Remedial Technology Screening Document, in the Site-Specific Alternatives Screening Technical Memorandum, the Respondent shall identify and evaluate applicable technologies and eliminate those that cannot be implemented at the Site. The Respondent shall evaluate process options on the basis of effectiveness, implementability, and cost factors to select and retain one or, if necessary, more representative processes for each technology type. The Respondent shall summarize and include the technology types and process options in the Site-Specific Alternatives Screening Technical Memorandum. Whenever

practicable, the alternatives shall also consider the CERCLA preference for treatment over conventional containment or land disposal approaches.

#### **6.1.4. Assemble and Document Alternatives**

The Respondent shall assemble the selected representative technologies into alternatives for each affected medium or operable unit. Together, all of the alternatives shall represent a range of treatment and containment combinations that shall address either the Site or the operable unit as a whole. The Respondent shall prepare a summary of the assembled alternatives and their related ARARs. If necessary, the Respondent shall conduct the screening of alternatives to assure that only the alternatives with the more favorable composite evaluation of all factors are retained for further analysis. As appropriate, the screening shall preserve the range of treatment and containment alternatives that was initially developed. The Respondent shall specify the reasons for eliminating alternatives during the preliminary screening process.

### **TASK 7: DETAILED ANALYSIS of ALTERNATIVES (FS REPORT)**

Building on the Multi-Site FS Documents, the Respondent shall conduct and present a detailed analysis of remedial alternatives to provide EPA with the information needed to select a Site remedy.

#### **7.1. Detailed Analysis of Alternatives**

The Respondent shall conduct a detailed analysis of the remedial alternatives for the Site. The detailed analysis shall include an analysis of each remedial option against each of the nine evaluation criteria set forth in 40 C.F.R. § 300.430(e)(9)(iii) and a comparative analysis of all options using the same nine criteria as a basis for comparison.

##### **7.1.1. Apply Nine Criteria and Document Analysis**

The Respondent shall apply the nine evaluation criteria to the assembled remedial alternatives to ensure that the selected remedial alternative will protect human health and the environment and meet remedial action objectives; will comply with or include a waiver of ARARs; will be cost-effective; will utilize permanent solutions and alternative treatment technologies, or resource recovery technologies, to the maximum extent practicable; and will address the statutory preference for treatment as a principal element. The evaluation criteria include: (1) overall protection of human health and the environment and how the alternative meets each of the remedial action objectives; (2) compliance with ARARs; (3) long-term effectiveness and permanence; (4) reduction of toxicity, mobility, or volume through treatment; (5) short-term effectiveness; (6) implementability; (7) cost; (8) state (or support agency) acceptance; and (9) community acceptance. (Note: criteria 8 and 9 are considered after the RI/FS report has been released to the general public.) For each alternative the Respondent shall provide: (1) a description of the alternative that outlines the waste management strategy involved and identifies the key ARARs associated with each alternative, and (2) a discussion of the individual criterion assessment. If the Respondent does not have direct input on criteria (8) state (or support agency) acceptance and (9) community acceptance, EPA will address these criteria.

### **7.1.2. Compare Alternatives Against Each Other and Document the Comparison of Alternatives**

The Respondent shall perform a detailed comparative analysis between the remedial alternatives. That is, the Respondent shall compare each alternative against the other alternatives using the nine evaluation criteria as a basis of comparison. EPA will identify and select the preferred alternative.

### **7.1.3. Alternatives Analysis for Institutional Controls**

For any Alternative that relies on Institutional Controls, Respondent shall include an evaluation of the following: 1) *Overall Protection of Human Health and the Environment* including what specific institutional control components will ensure that the alternative will remain protective and how these specific controls will meet remedial action objectives; 2) *Compliance with ARARs*; 3) *Long Term Effectiveness* including the adequacy and reliability of institutional controls and how long the institutional control must remain in place; 4) *Short Term Effectiveness* including the amount of time it will take to impose the Institutional Control; 5) *Implementability* including research and documentation that the proper entities (e.g., potentially responsible parties, state, local government entities, local landowners conservation organizations) are willing to enter into any necessary agreement or restrictive covenant with the proper entities and/or that laws governing the restriction exist or allow implementation of the institutional control; 6) *Cost* including the cost to implement, maintain, monitor and enforce the institutional control; and 7) *State and Community Acceptance* of the Institutional Control.

## **7.2. Feasibility Study Report**

In accordance with the Schedule in Exhibit A to this SOW, the Respondent shall prepare and submit a draft FS Report to EPA and IEPA for review and approval pursuant to Section X of the AOC. The FS report shall summarize the development and screening of the remedial alternatives and present the detailed analysis of remedial alternatives. In addition, the FS Report shall also include the information EPA will need to prepare relevant sections of the Record of Decision (ROD) for the Site [see Chapters 6 and 9 of EPA's *A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents* (EPA 540-R-98-031, July 1999) for the information that is needed].

## **TASK 8: PROGRESS REPORTS**

### **8.1. Site-Specific Monthly Progress Reports**

The Respondent shall submit site-specific monthly written progress reports to EPA and the IEPA concerning actions undertaken pursuant to the AOC and this SOW, in accordance with the Schedule in Exhibit A to this SOW, unless otherwise directed in writing by the RPM. These reports shall include, but not be limited to, a description of all significant developments during the

preceding period, including the specific work that was performed and any problems that were encountered; a paper and electronic copies (formatted according to EPA specifications) and summary of the analytical data that was received during the reporting period; and the developments anticipated during the next reporting period, including a schedule of work to be performed, anticipated problems, and actual or planned resolutions of past or anticipated problems. The site-specific monthly progress reports will summarize the field activities conducted each month including, but not limited to drilling and sample locations, depths and descriptions; boring logs; sample collection logs; field notes; problems encountered; solutions to problems; a description of any modifications to the procedures outlined in the Work Plans, with justifications for the modifications; a summary of all data received during the reporting period and the analytical results; and upcoming field activities. In addition, the Respondent shall provide the RPM or the entity designated by the RPM with all laboratory data within the monthly progress reports and in no event later than 90 days after samples are shipped for analysis.

## **8.2. Annual Progress Reports**

In accordance with the Schedule in Exhibit A to this SOW, the Respondent shall submit Annual Progress Reports to EPA and IEPA. These reports shall address the MGP Sites and shall summarize overall progress in completing the Work required by this AOC and SOW. The Annual Progress Reports are intended to be a concise summary of the progress of the Work at each of the MGP Sites. These reports will continue until termination of the AOC, unless otherwise directed in writing by EPA.

## **EXHIBIT A**

### **SCHEDULE FOR MAJOR DELIVERABLES**

#### **A. Project Start Dates**

The AOC and SOW establish requirements for an RI/FS at the MGP Sites located in Chicago, Illinois. To maximize efficiency in conducting multiple RI/FS activities, Multi-Site RI and FS Documents will be developed. Additionally, each of the Sites, and each operable unit, has been assigned a unique Project Start Date that triggers the site-specific RI/FS work for that Site or operable unit. The South Branch Site and the North Branch Site are composed of several operable units, each of which will have a unique Project Start Date. The overall Site Project Start Date shall coincide with each Site's first operable unit Project Start Date. Every six months after the effective date of this AOC shall mark the Project Start Date for one Site, or one operable unit, at one of the Sites. The following four Project Start Dates for Sites or operable units have been established:

- North Branch Site – Division Street Station Operable Unit- the effective date of the AOC.
- South Branch Site – South Station Operable Unit- the effective date of the AOC.
- North Shore Avenue Site- eighteen months after the effective date of the AOC
- Crawford Site- twenty four months after the effective date of the AOC

The Project Start Dates and prioritization are subject to review through periodic evaluation. In evaluating changes to the Project Start Dates and/or Site prioritization, EPA will give primary weight to the relative risks of the Site, or operable unit, with emphasis on the potential risks associated with human exposure to pollutants and contaminants. Other factors to be considered will include multi-site management issues, the need to efficiently allocate available resources, the need for interim responses to releases or potential releases of pollutants to contaminants, or other matters EPA deems appropriate.

#### **B. General Schedule**

The following general schedule shall apply to the Multi-Site RI and FS Documents and the RI/FS for each Site or operable unit. The general schedule for a specific Site or operable unit may be modified when: 1) a different schedule is approved by EPA in a Site-Specific Work Plan, Treatability Testing Work Plan, or other EPA approved document; or 2) the Respondent submits in writing a request for a site-specific extension or schedule modification, and EPA approves any such request. As used herein, the term "Site", when used to describe an RI/FS deliverable for an operable unit within the North Branch Site or the South Branch site, shall be understood to refer to that particular operable unit and not to the Site as a whole.

The parties recognize that the Respondent has completed significant planning activities, including work plan preparation, for the Division Street Station Operable Unit and the South



Station Upland Operable Unit pursuant to the June 5, 2007 EE/CA AOC. A draft Site-Specific Work Plan for the South Station Upland Operable Unit was submitted to EPA on August 11, 2008. That document shall be subject to the provisions of Section X of the AOC. On September 10, 2008 the parties held a scoping meeting for the Division Street Station Operable Unit. The draft Site-Specific Work Plan for the Division Street Operable Unit shall be due 60 days after the effective date of this AOC.

<b>DELIVERABLE</b>	<b>DUE DATE</b>
TASK 1.1.1 – Ongoing Work Reports	For each Site, or operable unit, annually on the effective date of this AOC until EPA’s approval of a Site-Specific Work Plan for that Site or operable unit.
TASK 1.1.2 – Completion Reports	Completion Report for North Branch Site, Division Street Station Operable Unit, the first operable unit, due 30 days after the effective date of the AOC. Completion Reports for any other applicable Site or operable unit due no later than the Project Start Date.
TASK 1.2.1 – Multi-Site RI Documents, including QAPP, FSP, Generalized CSM, RA Framework, and HSP.	Draft Multi-Site QAPP and HSP due 60 days after the effective date of the AOC. Draft Multi-Site FSP, Generalized CSM and RA Framework due 120 days after the effective date of the AOC. Final Multi-Site RI Documents due 45 days after EPA direction to modify pursuant to Section X of the AOC.
TASK 1.2.2 – Multi-Site FS Documents, including Preliminary Remedial Technology Screening, ARARs, and Permitting/ Equivalency documents	Draft Multi-Site FS Documents due one year after the effective date of the AOC. Final Multi-Site FS Documents due 45 days after EPA direction to modify pursuant to Section X of the AOC.
TASK 1.3 – Site-Specific Work Plans	North Branch Site, Division Street Station Operable Unit, the first operable unit, due 60 days after the effective date of the AOC. Site-Specific Work Plans for each other Site or operable unit due 90 days after its Project Start Date. Final Site-Specific Work Plan due 45 days after EPA direction to modify pursuant to Section X of the AOC.

<b>DELIVERABLE</b>	<b>DUE DATE</b>
TASK 2 - Technical Assistance Plan (TAP)	TAP for any Site due 60 days after a request from EPA. Final TAP due thirty calendar days after receipt of EPA's direction to modify pursuant to Section X of the AOC.
TASK 2 - Quarterly Progress Reports on Implementation of the TAP	10 days after the end of each calendar year quarter; first report due in the first full calendar year quarter after the effective date of the AOC.
TASK 3 - Site Characterization Technical Communications	To be included in the monthly Progress Reports.
TASK 4 - RI Report	Draft RI Report due one year following EPA approval of the Site-Specific Work Plan for a Site or operable unit, or on a schedule approved in the Site-Specific Work Plan. Final RI Report due 45 days after receipt of EPA's direction to modify pursuant to Section X of the AOC.
TASK 5.1 - Candidate Technologies and Testing Needs Technical Memorandum	With the draft RI/FS Planning Documents (Task 1.3).
TASK 5.2.1 - Treatability Testing Work Plan and SAP or Amendments to the Original Site-Specific Work Plan.	Within 45 days of request of EPA. Final documents due 45 days after receipt of EPA's direction to modify pursuant to Section X of the AOC.
TASK 5.2.2 - Treatability Testing Health and Safety Plan or Amendment to the Original Health and Safety Plan	Within 30 days of request of EPA. Final document due thirty calendar days after receipt of EPA's direction to modify pursuant to Section X of the AOC.
TASK 5.2.3 - Treatability Study Evaluation Report	Draft due with the RI Report (Task 4), or as approved by EPA in the Treatability Testing Work Plan. Final Treatability Study Evaluation Report due 45 days after receipt of EPA's direction to modify pursuant to Section X of the AOC.
TASK 6.1 – Site-Specific Alternatives Screening Technical Memorandum	60 days after submittal of the draft RI Report.

<b>DELIVERABLE</b>	<b>DUE DATE</b>
TASK 7 - FS Report	FS Report due 45 days after receipt of EPA's comments on the Site-Specific Alternatives Screening Technical Memorandum for Site or operable unit. Final FS Report due 45 days after receipt of EPA's direction to modify pursuant to Section X of the AOC.
TASK 8.1 - Site-Specific Monthly Progress Reports	For each Site or operable unit, on the 15 <sup>th</sup> day of each month or the first business day after the 15 <sup>th</sup> of the month commencing 60 days after the Project Start Date and continuing until EPA issues the Record of Decision for the Site or operable unit.
TASK 8.2 – Annual Progress Reports	Due one year after the effective date of the AOC and every year thereafter.
Miscellaneous Documents	In accordance with the submittal date provided by RPM.

## EXHIBIT B PARTIAL LIST OF GUIDANCE

The following list, although not comprehensive, comprises many of the regulations and guidance documents that apply to the RI/FS process. The majority of these guidance documents, and additional applicable guidance documents, may be downloaded from the following websites:

<http://www.epa.gov/superfund/pubs.htm> (General Superfund)  
<http://clu.in.org> (Site Characterization, Monitoring and Remediation)  
<http://www.epa.gov/ORD/NRMRL/Pubs> (Site Characterization and Monitoring)  
[http://www.epa.gov/quality/qa\\_docs.html#guidance](http://www.epa.gov/quality/qa_docs.html#guidance) (Quality Assurance)  
<http://www.epa.gov/superfund/programs/dfa/index.htm> (Dynamic Field Activities)  
<http://www.epa.gov/superfund/programs/risk/toolthh.htm> (Risk Assessment - Human)  
<http://www.epa.gov/superfund/programs/risk/tooleco.htm> (Ecological Risk Assessment)  
<http://www.epa.gov/superfund/programs/lead> (Risk Assessment - Lead)  
<http://cfpub.epa.gov/ncea> (Risk Assessment - Exposure Factors/Other)  
<http://www.epa.gov/nepis/srch.htm> (General Publications Clearinghouse)  
<http://www.epa.gov/clariton/clhtml/pubtitle.html>  
<http://www.epa.gov/superfund/programs/lead/products.htm> (General Publications Clearinghouse)

1. The (revised) National Contingency Plan;
2. *Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA*, U.S. EPA, Office of Emergency and Remedial Response, OSWER Directive No. 9355.3-01, EPA/540/G-89/004, October 1988.
3. *Conducting Remedial Investigations/Feasibility Studies for CERCLA Municipal Landfill Sites*, U.S. EPA, Office of Emergency and Remedial Response, EPA/540/P-91/001, February 1991.
4. *Implementing Presumptive Remedies*, U.S. EPA, Office of Emergency and Remedial Response, EPA-540-R-97-029, October 1997.
5. *Presumptive Remedy for CERCLA Municipal Landfill Sites*, U.S. EPA, OSWER Directive No. 9355.0-49FS, EPA-540-F-93-035, September 1993.
6. *Presumptive Remedies: CERCLA Landfill Caps RI/FS Data Collection Guide*, U.S. EPA, OSWER 9355.3-18FS, EPA/540/F-95/009, August 1995.
7. *Presumptive Response Strategy and Ex-Situ Treatment Technologies for Contaminated Ground Water at CERCLA Sites*, OSWER 9283.1-12, EPA-540-R-96-023, October 1996.

8. *Field Analytical and Site Characterization Technologies Summary of Applications*, U.S. EPA, EPA-542-F-97-024, November 1997.
9. *CLU-IN Hazardous Waste Clean-Up Information World Wide Web Site*, U.S. EPA, EPA-542-F-99-002, February 1999.
10. *Field Sampling and Analysis Technology Matrix and Reference Guide*, U.S. EPA, EPA-542-F-98-013, July 1998.
11. *Subsurface Characterization and Monitoring Techniques: A Desk Reference Guide, Volumes 1 and 2*, U.S. EPA, EPA/625/R-93/003, May 1993.
12. *Use of Airborne, Surface, and Borehole Geophysical Techniques at Contaminated Sites: A Reference Guide*, U.S. EPA, EPA/625/R-92/007(a,b), September 1993.
13. *Innovations in Site Characterization: Geophysical Investigation at Hazardous Waste Sites*, U.S. EPA, EPA-542-R-00-003, August 2000.
14. *Innovative Remediation and Site Characterization Technology Resources*, U.S. EPA, OSWER, EPA-542-F-01-026b, January 2001.
15. *Handbook of Suggested Practices for the Design and Installation of Ground-Water Monitoring Wells*, U.S. EPA, EPA/600/4-89/034, 1991.
16. *Ground-Water Sampling Guidelines for Superfund and RCRA Project Managers*, U.S. EPA, EPA-542-S-02-001, May 2002.
17. *Ground Water Issue: Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures*, U.S. EPA, EPA/540/S-95/504, April 1996.
18. *Superfund Ground Water Issue: Ground Water Sampling for Metals Analysis*, U.S. EPA, EPA/540/4-89/001, March 1989.
19. *Resources for Strategic Site Investigation and Monitoring*, U.S. EPA, OSWER, EPA-542-F-010030b, September 2001.
20. *Region 5 Framework for Monitored Natural Attenuation Decisions for Groundwater*, U.S. EPA Region 5, September 2000.
21. *Ground Water Issue: Suggested Operating Procedures for Aquifer Pumping Tests*, U.S. EPA, OSWER, EPA/540/S-93/503, February 1993.
22. *Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water*, U.S. EPA, EPA/600/R-98/128, September 1998.

23. *Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action and Underground Storage Tank Sites*, U.S. EPA, OSWER Directive 9200.4-17P, April 21, 1999.
24. *Ground Water Issue: Fundamentals of Ground-Water Modeling*, U.S. EPA, OSWER, EPA/540/S-92/005, April 1992.
25. *Assessment Framework for Ground-Water Model Applications*, U.S. EPA, OSWER Directive #9029.00, EPA-500-B-94-003, July 1994.
26. *Ground-Water Modeling Compendium - Second Edition: Model Fact Sheets, Descriptions, Applications and Cost Guidelines*, U.S. EPA, EPA-500-B-94-004, July 1994.
27. *A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents*, U.S. EPA, Office of Solid Waste and Emergency Response, OSWER Directive No. 9200.1-23P, EPA 540-R-98-031, July 1999.
28. *Region 5 Instructions on the Preparation of A Superfund Division Quality Assurance Project Plan Based on EPA QA/R-5, Revision 0*, U.S. EPA Region 5, June 2000.
29. *Guidance for the Data Quality Objectives Process (QA-G-4)*, U.S. EPA, EPA/600/R-96/055, August 2000.
30. *Guidance for the Data Quality Objectives Process for Hazardous Waste Sites (QA/G-4HW)*, U.S. EPA, EPA/600/R-00/007, January 2000.
31. *Guidance for the Preparation of Standard Operating Procedures (QA-G-6)*, U.S. EPA, EPA/240/B-01/004, March 2001.
32. *EPA Requirements for Quality Management Plans (QA/R-2)*, U.S. EPA, EPA/240/B-01/002, March 2001.
33. *EPA Requirements for QA Project Plans (QA/R-5)*, U.S. EPA, EPA/240/B-01/003, March 2001.
34. *Guidance for Quality Assurance Project Plans (QA/G-5)*, U.S. EPA, EPA/600/R-98/018, February 1998.
35. *Users Guide to the EPA Contract Laboratory Program*, U.S. EPA, Sample Management Office, OSWER Directive No. 9240.0-01D, January 1991.
36. *Technical Guidance Document: Quality Assurance and Quality Control for Waste Containment Facilities*, U.S. EPA, EPA/600/R-93/182, 1993.
37. *Risk Assessment Guidance for Superfund - Volume I Human Health Evaluation Manual (Part A)*, U.S. EPA, EPA/540/1-89/002, December 1989.

38. *Risk Assessment Guidance for Superfund - Volume I Human Health Evaluation Manual (Part B, Development of Risk-Based Preliminary Remediation Goals)*, U.S. EPA, EPA/540/R-92/003, OSWER Publication 9285.7-01B, December 1991.
39. *Risk Assessment Guidance for Superfund - Volume I Human Health Evaluation Manual (Part C - Risk Evaluation of Remedial Alternatives)*, U.S. EPA, Office of Emergency and Remedial Response, Publication 9285.7-01C, October, 1991.
40. *Risk Assessment Guidance for Superfund - Volume I Human Health Evaluation Manual (Part D - Standardized Planning, Reporting, and Review of Superfund Risk Assessments)*, U.S. EPA, Office of Emergency and Remedial Response, Publication 9285.7-47, December 2001.
41. *Risk Assessment Guidance for Superfund: Volume III - Part A, Process for Conducting Probabilistic Risk Assessment*, U.S. EPA, OSWER Publication 9285.7-45, EPA-540-R-02-002, December 2001.
42. *Policy for Use of Probabilistic in Risk Assessment at the U.S. Environmental Protection Agency*, U.S. EPA, Office of Research and Development, 1997.
43. *Human Health Evaluation Manual, Supplemental Guidance: Standard Default Exposure Factors*, U.S. EPA, OSWER Directive 9285.6-03, March 25, 1991.
44. *Exposure Factors Handbook*, Volumes I, II, and III, U.S. EPA, EPA/600/P-95/002Fa,b,c, August 1997.
45. *Supplemental Guidance to RAGS: Calculating the Concentration Term*, U.S. EPA, OSWER Publication 9285.7-08I, May 1992.
46. *Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities*, U.S. EPA, OSWER Directive 9355.4-12, EPA/540/F-94/043, July 14, 1994.
47. *Clarification to the 1994 Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities*, U.S. EPA, OSWER Directive 9200.4-27, EPA/540/F-98/030, August 1998.
48. *Guidance Manual for the Integrated Exposure Uptake Biokinetic (IEUBK) Model for Lead in Children*, U.S. EPA, OSWER Publication 9285.7-15-1, February 1994; and associated, clarifying Short Sheets on IEUBK Model inputs, including but not limited to OSWER 9285.7-32 through 34, as listed on the OSWER lead internet site at [www.epa.gov/superfund/programs/lead/prods.htm](http://www.epa.gov/superfund/programs/lead/prods.htm).
49. *Integrated Exposure Uptake Biokinetic (IEUBK) Model for Lead in Children*, Version 0.99D, NTIS PB94-501517, 1994 or *Integrated Exposure Uptake Biokinetic (IEUBK) Model for Lead in Children*, Windows© version, 2001,

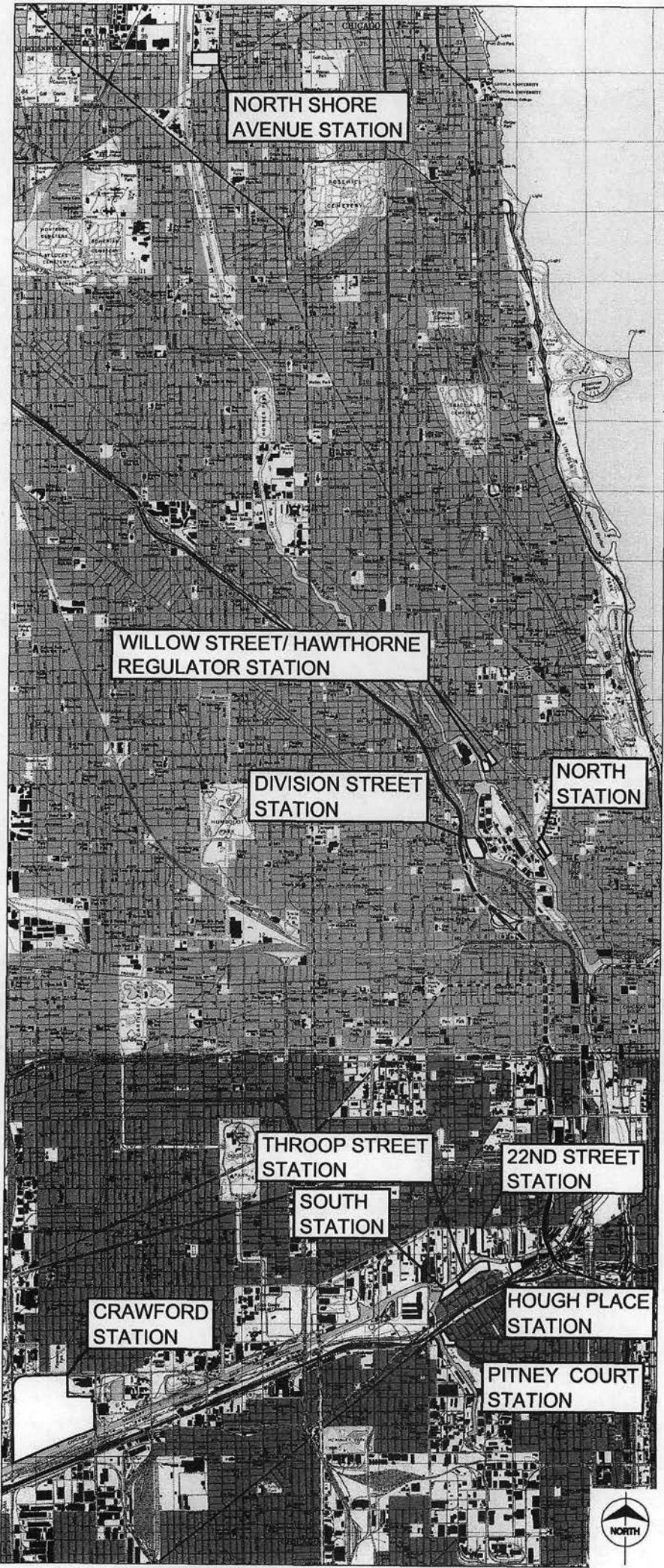
50. *Role of the Baseline Risk Assessment in Superfund Remedy Selection Decisions*, U.S. EPA, OSWER Directive 9355.0-30, April 22, 1991.
51. *Performance of Risk Assessments in Remedial Investigation /Feasibility Studies (RI/FSs) Conducted by Potentially Responsible Parties (PRPs)*, OSWER Directive No. 9835.15, August 28, 1990.
52. *Supplemental Guidance on Performing Risk Assessments in Remedial Investigation Feasibility Studies (RI/FSs) Conducted by Potentially Responsible Parties (PRPs)*, OSWER Directive No. 9835.15(a), July 2, 1991.
53. *Role of Background in the CERCLA Cleanup Program*, U.S. EPA, OSWER 9285.6-07P, April 26, 2002.
54. *Soil Screening Guidance: User's Guide*, U.S. EPA, OSWER Publication 9355.4-23, July 1996.
55. *Soil Screening Guidance: Technical Background Document*, U.S. EPA, EPA/540/R95/128, May 1996.
56. *Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites (Peer Review Draft)*, U.S. EPA, OSWER Publication 9355.4-24, March 2001.
57. *Ecological Risk Assessment Guidance for Superfund: Process for Designing & Conducting Ecological Risk Assessments*, U.S. EPA, OSWER Directive 9285.7-25, EPA-540-R-97-006, February 1997.
58. *Guidelines for Ecological Risk Assessment*, U.S. EPA, EPA/630/R-95/002F, April 1998.
59. *The Role of Screening-Level Risk Assessments and Refining Contaminants of Concern in Baseline Ecological Risk Assessments*, U.S. EPA, OSWER Publication 9345.0-14, EPA/540/F-01/014, June 2001.
60. *Ecotox Thresholds*, U.S. EPA, OSWER Publication 9345.0-12FSI, EPA/540/F-95/038, January 1996.
61. *Issuance of Final Guidance: Ecological Risk Assessment and Risk Management Principles for Superfund Sites*, U.S. EPA, OSWER Directive 9285.7-28P, October 7, 1999.
62. *Guidance for Data Usability in Risk Assessment (Quick Reference Fact Sheet)*, OSWER 9285.7-05FS, September, 1990.
63. *Guidance for Data Usability in Risk Assessment (Part A)*, U.S. EPA, Office of Emergency and Remedial Response, Publication 9285.7-09A, April 1992.



64. *Guide for Conducting Treatability Studies Under CERCLA*, U.S. EPA, EPA/540/R-92/071a, October 1992.
65. *CERCLA Compliance with Other Laws Manual, Two Volumes*, U.S. EPA, Office of Emergency and Remedial Response, OSWER Directive No. 9234.1-01 and -02, EPA/540/G-89/009, August 1988.
66. *Guidance on Remedial Actions for Contaminated Ground Water at Superfund Sites*, U.S. EPA, Office of Emergency and Remedial Response, (Interim Final), OSWER Directive No. 9283.1-2, EPA/540/G-88/003, December 1988.
67. *Considerations in Ground-Water Remediation at Superfund Sites and RCRA Facilities - Update*, U.S. EPA, OSWER Directive 9283.1-06, May 27, 1992.
68. *Methods for Monitoring Pump-and-Treat Performance*, U.S. EPA, EPA/600/R-94/123, June 1994.
69. *Pump-and-Treat Ground-Water Remediation A Guide for Decision Makers and Practitioners*, U.S. EPA, EPA/625/R-95/005, July 1996.
70. *Ground-Water Treatment Technology Resource Guide*, U.S. EPA, OSWER, EPA-542-B-94/009, September 1994.
71. *Land Use in the CERCLA Remedy Selection Process*, U.S. EPA, OSWER Directive No. 9355.7-04, May 25, 1995.
72. *Reuse Assessments: A Tool To Implement The Superfund Land Use Directive*, U.S. EPA, OSWER 9355.7-06P, June 4, 2001.
73. *Reuse of CERCLA Landfill and Containment Sites*, U.S. EPA, OSWER 9375.3-05P, EPA-540-F-99-015, September 1999.
74. *Reusing Superfund Sites: Commercial Use Where Waste is Left on Site*, U.S. EPA, OSWER 9230.0-100, February 2002.
75. *Covers for Uncontrolled Hazardous Waste Sites*, U.S. EPA, EPA/540/2-85/002, 1985.
76. *Technical Guidance Document: Final Covers on Hazardous Waste Landfills and Surface Impoundments*, U.S. EPA, OSWER, EPA/530-SW-89-047, July 1989.
77. *Engineering Bulletin: Landfill Covers*, U.S. EPA, EPA/540/S-93/500, 1993.
78. *Principles for Managing Contaminated Sediment Risks at Hazardous Waste Sites*, U.S. EPA OSWER Directive 9285.6-08, February 12, 2002.

79. *Institutional Controls: A Site Manager's Guide to Identifying, Evaluating and Selecting Institutional Controls at Superfund and RCRA Corrective Action Cleanups*, U.S. EPA, OSWER 9355.0-74FS-P, EPA/540-F-00-005, September 29, 2000.
80. *Health and Safety Requirements of Employees Employed in Field Activities*, U.S. EPA, Office of Emergency and Remedial Response, EPA Order No. 1440.2, July 12, 1981.
81. *OSHA Regulations in 29 CFR 1910.120*, Federal Register 45654, December 19, 1986.
82. *Standard Operating Safety Guides*, PB92-963414, June 1992.
83. *Community involvement in Superfund: A Handbook*, U.S. EPA, Office of Emergency and Remedial Response, OSWER Directive No. 9230.0#3B June 1988; and OSWER Directive No. 9230.0-3C, January 1992.

# APPENDIX B



NORTH SHORE AVENUE STATION

WILLOW STREET/HAWTHORNE REGULATOR STATION

DIVISION STREET STATION

NORTH STATION

THROOP STREET STATION

SOUTH STATION

22ND STREET STATION

CRAWFORD STATION
















HOUGH PLACE STATION

PITNEY COURT STATION





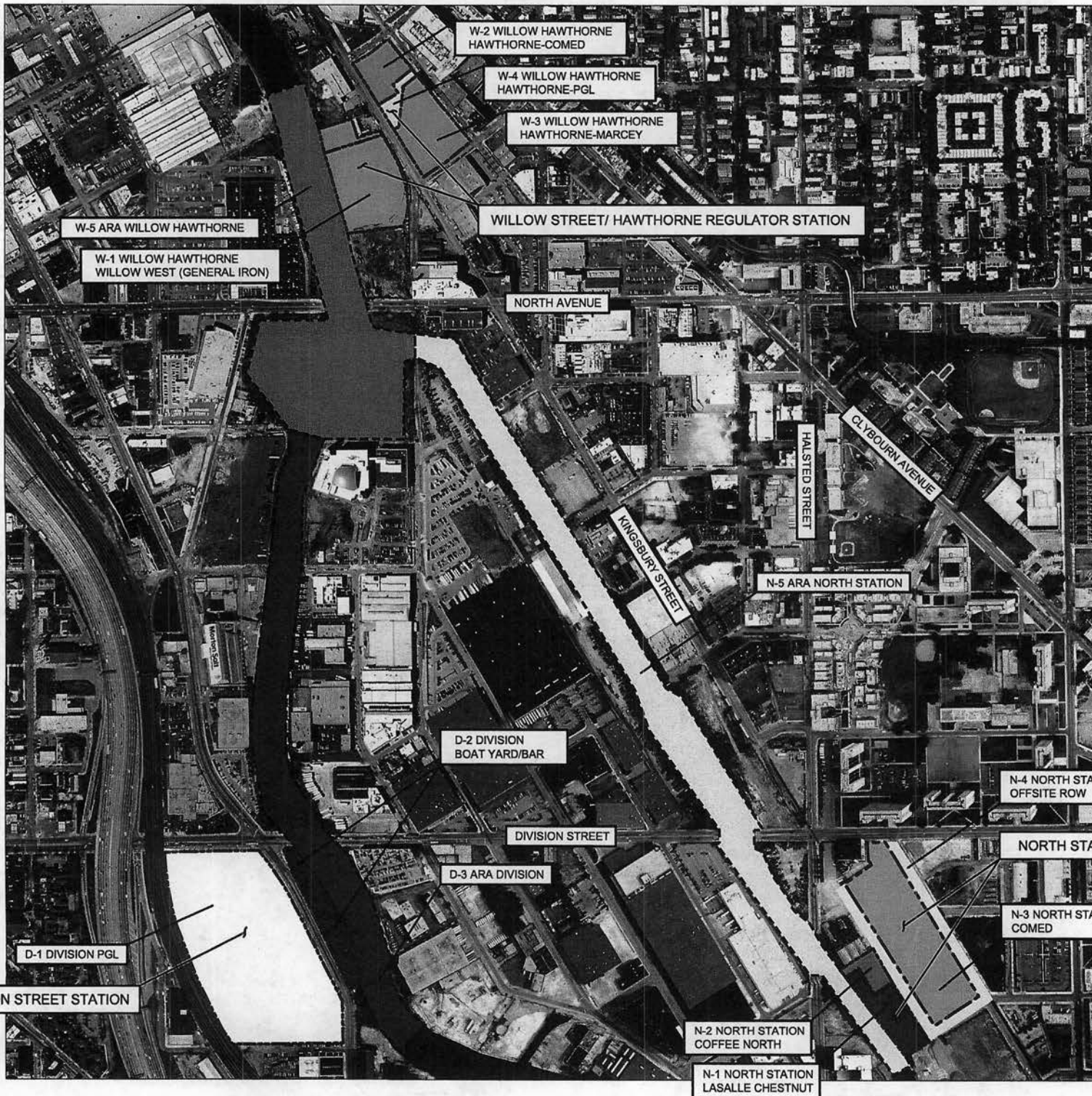
**LEGEND**

-  H-1 HOUGH CROWLEY
-  H-2 HOUGH CENTERPOINT
-  H-3 ARA HOUGH
-  P-1 PITNEY PGL PROPERTY
-  P-2 ARA PITNEY
-  S-1 SOUTH STATION PARCELS A & B
-  S-2 SOUTH STATION PARCELS C & D
-  S-3 ARA SOUTH STATION
-  T-1 THROOP BRANDENBURG
-  T-2 ARA THROOP
-  TW-1 22nd STREET COMED
-  TW-2 22nd STREET MIDWEST GENERATION
-  TW-3 22nd STREET SUPER CARTAGE/GRM
-  TW-4 ARA 22nd STREET
-  CHICAGO DEPARTMENT OF ENVIRONMENT SEDIMENT CAPPING STUDY AREA
















	<p><b>ORIGINS PARK SITE CHICAGO, ILLINOIS</b></p>
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**LEGEND**

-  D-1 DIVISION PGL
-  D-2 DIVISION BOAT YARD/BAR
-  D-3 ARA DIVISION
-  N-1 NORTH STATION LASALLE CHESTNUT
-  N-2 NORTH STATION COFFEE NORTH
-  N-3 NORTH STATION COMED
-  N-4 NORTH STATION OFFSITE ROW
-  N-5 ARA NORTH STATION
-  W-1 WILLOW HAWTHORNE WILLOW WEST (GENERAL IRON)
-  W-2 WILLOW HAWTHORNE HAWTHORNE-COMED
-  W-3 WILLOW HAWTHORNE HAWTHORNE-MARCEY
-  W-4 WILLOW HAWTHORNE HAWTHORNE-PGL
-  W-5 ARA WILLOW HAWTHORNE



 <p>Burns &amp; McDonnell SINCE 1898</p>	<p>GOOSE ISLAND SITE CHICAGO, ILLINOIS</p>
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NS-3 NORTH SHORE  
MWRD PARCEL

NS-4 ARA NORTH SHORE  
CHANNEL

MCCORMICK BOULEVARD

PRATT AVENUE

NORTH SHORE AVENUE STATION

NS-1 NORTH SHORE  
MAIN PARCEL

NORTH SHORE AVENUE

WHIPPLE STREET





SACRAMENTO AVENUE

NS-2 NORTH SHORE  
POND PARCEL

ALBION AVENUE

KEDZIE AVENUE

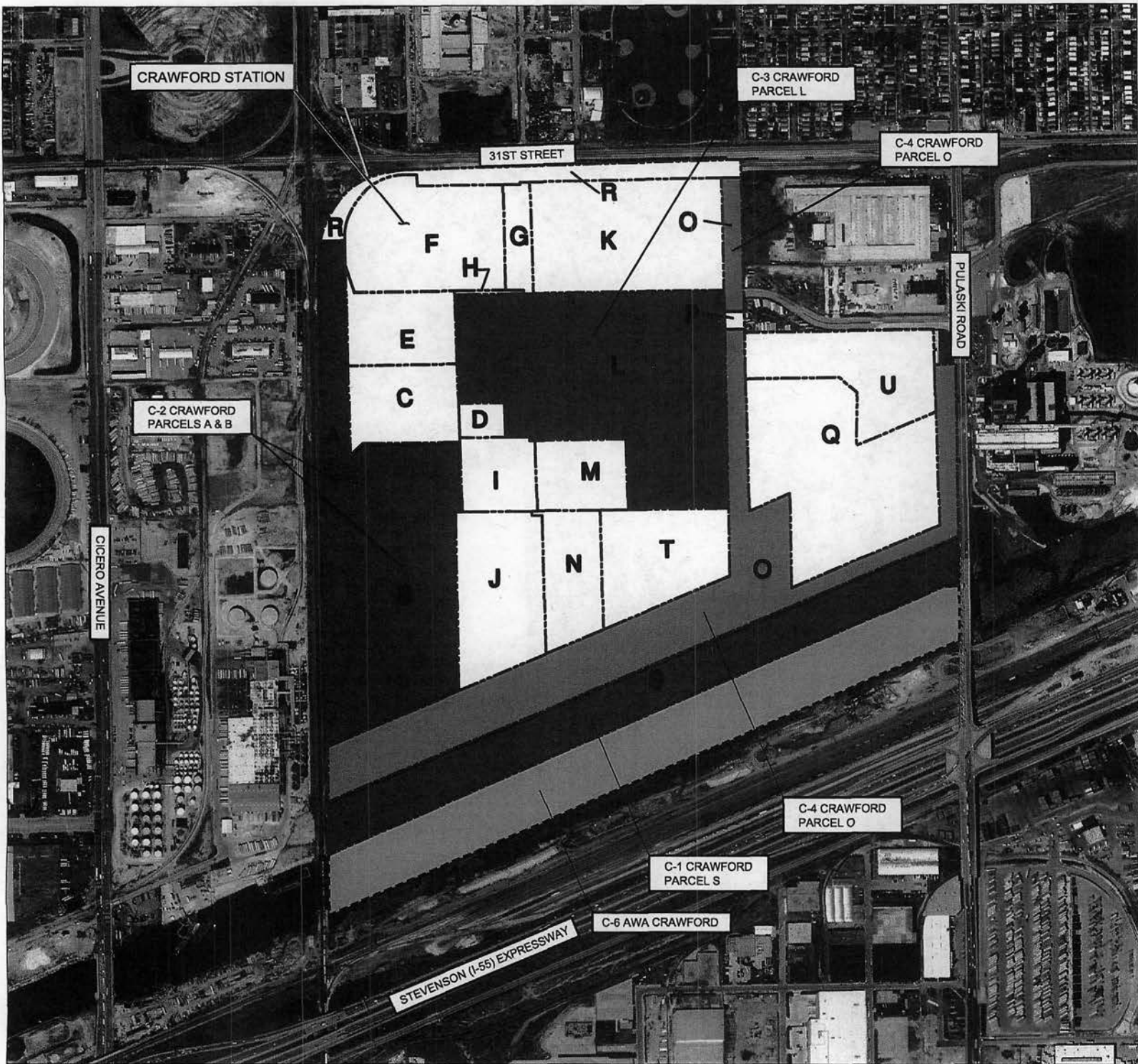
**LEGEND**

-  NS-1 NORTH SHORE MAIN PARCEL
-  NS-2 NORTH SHORE POND PARCEL
-  NS-3 NORTH SHORE MWRD PARCEL
-  NS-4 ARA NORTH SHORE CHANNEL









NORTH SHORE AVENUE SITE  
CHICAGO, ILLINOIS





**LEGEND**

-  C-1 CRAWFORD PARCEL S
-  C-2 CRAWFORD PARCELS A & B
-  C-3 CRAWFORD PARCEL L
-  C-4 CRAWFORD PARCEL O
-  C-5 CRAWFORD REMAINING PARCELS
-  C-6 AWA CRAWFORD



 Burns & McDonnell <small>SINCE 1898</small>	<b>CRAWFORD SITE</b> <b>CHICAGO, ILLINOIS</b>
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# APPENDIX C

**SITE ID NUMBERS**

22<sup>nd</sup> Street Station Site, SSID B5FW

North Station Site, SSID B5FX

Willow Street Station Site, SSID B5FY

Division Street Station Site, SSID B5FZ

Hough Place Station Site, SSID B5HH

South Station Site, SSID B5HJ

Crawford Station Site, SSID B5HK

North Shore Avenue Station Site, SSID B5HL

Throop Street Station Site, SSID B5HM

Hawthorne Avenue Station Site, SSID B5HN

Pitney Court Station Site, SSID B5HP

## Case Conclusion Data Sheet

[Please click here for instructions for completing the form](#)

Program Contact: Timothy Prendiville  
Phone: 6-5122

ORC Attorney: Peter Felitti  
Phone: 6-5114

Status:  Draft  Final  Update

### CASE BACKGROUND

1. ICIS Enforcement Activity Number:
2. Regional Hearing Clerk Docket Number:
3. Program Docket Number:
4. Judicial Court Docket Number:
- \*5. Case Name (Add Defendants if other than case name) **IN THE MATTER OF :**  
**Peoples Gas Manufactured Gas Plant Sites**  
Additional Defendants :

### FACILITY INFORMATION

6. EPA Program Facility ID:
- \*7. Facility Name:

22nd Street Station (the "22nd Street Station Site") located at 2200 South Racine Avenue, Chicago, Illinois; North Station (the "North Station Site") located in the area bounded by North Crosby, West Division, and West Hobbie Streets and the North Branch Canal of the Chicago River system in Chicago, Illinois; Division Street Station (the "Division Street Station Site") located at 1241 West Division Street, Chicago, Illinois; Crawford Station (the "Crawford Station Site") located at 3500 South Pulaski Road, Chicago, Illinois; Hawthorne Avenue Station (the "Hawthorne Avenue Station Site") located on the northwest corner of the intersection of Marcey Street and Willow Street in Chicago, Illinois; Hough Place Station (the "Hough Place Station Site") located at 2500 S. Corbett St., Chicago, Illinois; North Shore Avenue Station (the "North Shore Avenue Station Site") located in the Rogers Park Township of Chicago, Illinois; Pitney Court Station (the "Pitney Court Station Site") located at 3052 Pitney Court, Chicago, Illinois; South Station (the "South Station Site") located near the intersection of Eleanor and Loomis Streets, Chicago, Illinois; Throop Street Station (the "Throop Street Station Site") located at the intersection of South Throop Street, South Eleanor Street, and West 25th Street, Chicago, Illinois; and Willow Street Station (the "Willow Street Station Site") located west of the intersection of Willow Street and North Kingsbury Street in Chicago, Illinois.

- \*8. Facility Street Address:  
City, State, Zipcode: chicago, IL  
County: Cook

- \*9. Primary 4-digit NAICS/SICCode:
10. Other 4-digit NAICS/SIC codes:

### STATUTES AND AUTHORIZING SECTION INFORMATION

- |      |   |               |
|------|---|---------------|
|      | <b>*Media Program</b>                           | <b>CERCLA</b> |
| *11. | Statute(s) and Section(s) Violated:             | CERCLA 107    |
| *12. | Authorizing Section for Administrative Actions: | CERCLA 106    |

**SUPPLEMENTAL ENVIRONMENTAL PROJECTS (SEPs)  
PENALTY**

- 37. Proposed Penalty:
- 38. Assessed Penalty:
- 39. If Shared Federal Share:
- 40. If Shared State or Local Share:
- 41. For multi-media actions: Federal amounts by Statute

Statute	Amount
CAA	
CERCLA	
CWA 402	
CWA 311	
CWA 404	
EPCRA 304/312/325	
EPCRA 313	
FIFRA	
RCRA	
RCRA/UST	
SDWA/UIC	
TSCA	

**COST RECOVERY (SUPERFUND ONLY)**

- 42. Amount of cost recovery award: State and/or Local government:  
Other:

**\*PLEASE ADD ADDITIONAL INFORMATION, INCLUDING SHORT CASE SUMMARY:**

This Settlement Agreement requires the Respondent to conduct a Remedial Investigation and Feasibility Study at four Peoples Gas sites in Chicago, Illinois. The Sites are the North Shore Avenue Site, the South Branch Site; the North Branch Site; and the Crawford Site. The North Branch Site includes the Division Street Station Operable Unit located at 1241 West Division Street, Chicago, Illinois; the North Station Operable Unit located in the area bounded by North Crosby, West Division, and West Hobbie Streets and the North Branch Canal, which is part of the Chicago River system in Chicago, Illinois; and the Willow Street/Hawthorne Avenue Station Operable Unit which is located at the intersection of Willow Street and North Kingsbury Street in Chicago, Illinois. The South Branch Site includes the 22nd Street Station Upland Operable Unit located at 2200 South Racine Avenue, Chicago, Illinois; the Hough Place Station Upland Operable Unit located at 2500 S. Corbett St., Chicago, Illinois; the Pitney Court Station Upland Operable Unit located at 3052 Pitney Court, Chicago, Illinois; the South Station Upland Operable Unit located near the intersection of Eleanor and Loomis Streets, Chicago, Illinois; the