

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2

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: IN THE MATTER OF THE :
: GOWANUS CANAL SUPERFUND SITE :
: :
: BROOKLYN UNION GAS CO. D/B/A :
: NATIONAL GRID NEW YORK, : Index No.
: : CERCLA-02-2010-2009
: Respondent. :
: :
: Proceeding under Sections 104 and :
: 122 of the Comprehensive Environ- :
: mental Response, Compensation, and :
: Liability Act, as amended, :
: 42 U.S.C. §§ 9604, 9622. :
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ADMINISTRATIVE ORDER AND SETTLEMENT AGREEMENT FOR
INVESTIGATION, SAMPLING AND EVALUATION

I. INTRODUCTION

1. This Administrative Order and Settlement Agreement ("Settlement Agreement") is entered into by the above-captioned Respondent and the United States Environmental Protection Agency ("EPA"). EPA is performing a remedial investigation and feasibility study (hereinafter, the "RI/FS") relating to the Gowanus Canal Superfund Site (hereinafter, the "Site") located in Brooklyn, Kings County, New York. This Settlement Agreement concerns the performance by Respondent of response actions in support of EPA's RI/FS. This Settlement Agreement also concerns reimbursement by Respondent to EPA for certain costs which will be incurred by EPA in connection with this Settlement Agreement.

II. JURISDICTION

2. This Settlement Agreement is issued to Respondent by EPA pursuant to the authority vested in the President of the United States under Sections 104(a), 104(b), and 122 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. §§ 9604(a), 9604(b), and 9622, which authority was delegated to the Administrator of EPA on January 23, 1987 by Executive Order 12580, 52 Fed. Reg. 2926 (1987). This authority was further delegated to the Regional Administrators of EPA on September 13, 1987 by EPA Delegations 14-8-B and 14-14-D, and redelegated within Region 2 to the Director of the Emergency and Remedial

Response Division by Regional Order No. R-1200, dated November 23, 2004.

3. EPA and Respondent recognize that this Settlement Agreement has been negotiated in good faith and that neither entry into this Settlement Agreement nor the actions undertaken by Respondent in accordance with this Settlement Agreement do not constitute an admission of any liability, or an admission as to EPA's Findings of Fact or EPA's Conclusions of Law and Determinations. Respondent agrees to undertake all actions required by the terms and conditions of this Settlement Agreement, and also agrees not to contest the validity or terms of this Settlement Agreement in any action to enforce its provisions.

III. PARTIES BOUND

4. This Settlement Agreement shall apply to and be binding upon Respondent and its successors and assigns. Respondent agrees to instruct its officers, directors, employees and agents involved in the performance of the Work, as defined below, required under this Settlement Agreement to cooperate in carrying out the obligations of Respondent under this Settlement Agreement. Respondent agrees that its officers, directors, employees and agents involved in the performance of the Work required by this Settlement Agreement shall take all necessary steps to accomplish the performance of said Work in accordance with this Settlement Agreement.

5. Respondent shall provide a copy of this Settlement Agreement to any subsequent owners or successors before a controlling interest in ownership rights or stock or assets of Respondent is transferred. Respondent shall provide a copy of this Settlement Agreement to all contractors, subcontractors, laboratories, and consultants which are retained to conduct any Work performed under this Settlement Agreement, within fourteen (14) days after the effective date of this Settlement Agreement or the date of retaining their services, whichever is later. Respondent shall condition any such contracts upon satisfactory compliance with this Settlement Agreement. Notwithstanding the terms of any contract, Respondent is responsible for compliance with this Settlement Agreement and for ensuring that its employees, contractors, consultants, subcontractors and agents comply with this Settlement Agreement.

IV. STATEMENT OF PURPOSE

6. In entering into this Settlement Agreement, the objectives of EPA and Respondent are: (a) to conduct investigations and sampling that will assist in determining the nature and extent of contamination and any threat to the public health, welfare, or the environment caused by any release or threatened release of hazardous substances, pollutants, or contaminants at or from the Site, including but not limited to, sediments and surface water in the Gowanus Canal, and soil and groundwater which may be contributing to contamination within the Canal; (b) to provide EPA information that will assist in the evaluation of response alternatives for addressing any release or threatened release of hazardous substances, pollutants or contaminants at or from the Site, including but not limited to, sediments and surface water in the Gowanus Canal, and soil and groundwater which may be contributing to contamination within the Canal; and (c) to provide for the reimbursement to EPA of certain response costs which will be incurred by EPA with respect to this Settlement Agreement. In addition, under the direction of the of the New York State Department of Environmental Conservation ("NYSDEC"), Respondent has conducted certain response activities with respect to the Site and its three former manufactured gas plants (hereinafter, collectively referred to as the "Gowanus MGPs"). In support of the RI/FS, Respondent has provided EPA with the documents listed in Appendix 2 to this Settlement Agreement. Such documents and information will be considered by EPA in conducting the RI/FS and will be included in the administrative record for the Site.

7. The activities conducted under this Settlement Agreement are subject to approval by EPA and shall, inter alia, provide appropriate information in support of the RI/FS being conducted by EPA and for a record of decision that is consistent with CERCLA and the National Oil and Hazardous Substances Pollution Contingency Plan ("NCP"), 40 C.F.R. Part 300. The activities conducted by or on behalf of Respondent under this Settlement Agreement shall be conducted in compliance with CERCLA, the NCP and all applicable EPA guidance, policies, and procedures and any amendments thereto.

V. DEFINITIONS

8. Unless otherwise expressly provided herein, terms used in this Settlement Agreement that are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Settlement Agreement or in the appendices attached

hereto and incorporated hereunder, the following definitions shall apply:

- a. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601, *et seq.*
- b. "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.
- c. "Effective Date" shall be the effective date of this Settlement Agreement as provided in Section XXX.
- d. "EPA" shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.
- e. "Hazardous substances" shall mean any substance (or mixture containing any hazardous substance) that falls within the definition of a "hazardous substance," as defined in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).
- f. "Interest" shall mean interest at the rate specified for interest on investments of the EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, compounded annually, 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.
- g. "National Contingency Plan" or "NCP" shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.
- h. "NYSDEC" shall mean the New York State Department of Environmental Conservation and any successor departments or agencies of the State.
- i. "Paragraph" shall mean a portion of this Settlement Agreement identified by an Arabic numeral.
- j. "Parties" shall mean EPA and the Respondent.

- k. "Respondent" shall mean Brooklyn Union Gas Company d/b/a National Grid, a company incorporated in the State of New York and having its principal place of business at One Metrotech Center, Brooklyn, NY 11201.
- l. "Response Costs" shall mean all costs, including, but not limited to, direct and indirect costs, that the United States incurs after the Effective Date in reviewing plans, reports and other items pursuant to this Settlement Agreement, verifying the Work, or otherwise implementing, overseeing, or enforcing this Settlement Agreement, including but not limited to, payroll costs, contractor costs, travel costs, laboratory costs, the costs incurred pursuant to Paragraph 54 (costs and attorneys fees and any monies paid to secure access, including the amount of just compensation), Paragraph 45 (emergency response) and Paragraph 85 (work takeover).
- m. "Section" shall mean a portion of this Settlement Agreement identified by a Roman numeral.
- n. "Settlement Agreement" shall mean this Administrative Settlement Agreement and Order on Consent, all appendices attached hereto (listed in Section XXXI) and all documents incorporated by reference into this document including without limitation EPA-approved submissions. EPA-approved submissions (other than progress reports) are incorporated into and become a part of the Settlement Agreement upon approval by EPA. In the event of conflict between this Settlement Agreement and any appendix or other incorporated documents, this Settlement Agreement shall control.
- o. "Site" shall mean the Gowanus Canal Superfund Site, an approximately 100-foot wide, 1.8-mile-long canal located in the New York City borough of Brooklyn, Kings County, New York, and any areas which are sources of contamination to the Canal.
- p. "State" shall mean the State of New York.
- q. "Work" shall mean all activities Respondent is required to perform under this Settlement Agreement.
- r. "USACE" shall mean the U.S. Army Corps of Engineers.

VI. EPA'S FINDINGS OF FACT AND CONCLUSIONS OF LAW

9. The Gowanus Canal is a brackish, tidal arm of the New York-New Jersey Harbor Estuary, extending for approximately 1.8 miles through Brooklyn, New York. The approximately 100-foot-wide canal runs southwest from Butler Street to Gowanus Bay and Upper New York Bay. The adjacent waterfront is primarily commercial and industrial, currently including concrete plants, warehouses, and parking lots, and the Site is near several residential neighborhoods.

10. The Canal was constructed by bulkheading and dredging a tidal creek and wetland. After its completion in the 1860s, the Canal quickly became one of the nation's busiest industrial waterways, home to heavy industry including gas works (*i.e.*, manufactured gas plants), coal yards, cement makers, soap makers, tanneries, paint and ink factories, machine shops, chemical plants and oil refineries.

11. Hazardous substances, pollutants and contaminants have entered the Canal via several transport pathways or mechanisms, including spillage during product shipping and handling, direct disposal or discharge, contaminated groundwater discharge, surface water runoff, storm water discharge (including combined sewer overflow) and contaminated soil erosion. As a result of decades of direct and indirect discharges of hazardous substances generated by industrial and other activity, the Canal became a repository for untreated industrial wastes, raw sewage, and runoff, causing it to become one of New York's most polluted waterways.

12. Much of the heavy industrial activity along the Canal has ceased. Land uses along and near the Canal are in the process of transitioning from heavy industrial to light industrial, commercial, and residential uses. Despite the ongoing pollution problems, the Canal is currently used by some for recreational purposes such as canoeing and kayaking, diving, and catching fish for consumption. The Canal and New York City harbor are subject to New York State fishing advisories.

13. From 2001 through 2006, the U.S. Army Corps of Engineers ("USACE") performed investigation activities related to the Canal pursuant to the USACE's regulatory authority over navigable waterways. These activities have included sediment coring in the Canal, a bathymetric survey, a cultural resources survey, and a Phase I Environmental Site Assessment of potential upland source areas.

14. Respondent is a successor-in-interest to Keyspan Energy Corp., Brooklyn Union Gas Co. and the entities which owned and operated the "Gowanus MGPs," namely the Metropolitan Gas Light Co., Citizen's Gas Light Co. and the Fulton Municipal Gas Co.

15. Respondent is currently conducting investigations of the Gowanus MGPs under the direction of the NYSDEC.

16. From 2004 through 2006, Respondent also conducted investigation activities within the Canal under the direction of NYSDEC. These activities included sediment coring, surface water sampling, an eco-toxicity study, and a discharge pipe survey and inventory.

17. Sampling results from the various investigations document the presence of hazardous substances in groundwater, soil, and Canal sediments at the Site. These include polycyclic aromatic hydrocarbons (also known as "PAHs"), polychlorinated biphenyls (also known as "PCBs"), pesticides (such as methoxychlor and DDT), metals (such as lead, cadmium, mercury and chromium), as well as volatile organic compounds (such as benzene, toluene and ethylbenzene). The contamination extends the entire length of the Canal. EPA has sent both CERCLA § 104(e) requests for information and general notice letters to multiple parties believed to be potential sources of contaminants. EPA's responsible party search is ongoing.

18. EPA believes, and Respondent neither admits nor denies, that as a result of coal gasification processes at the Gowanus MGPs, hazardous substances including PAHs were disposed of at the Gowanus MGPs via dumping, leaking, or spilling onto the ground, and direct and indirect discharge to the Canal.

19. At the request of NYSDEC, by publication in the *Federal Register* on April 8, 2009, EPA proposed the Site for inclusion on the National Priorities List ("NPL") established pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605. On March 2, 2010, EPA formally listed the Site on the NPL.

20. The discharge, dumping and/or disposal of hazardous substances at the Site constitutes a "release" of hazardous substances into the environment as the term "release" is defined in Section 101(22) of CERCLA, 42 U.S.C. § 9601(22). In addition, there is a threat of further releases of hazardous substances at and from the Site.

21. Respondent is a responsible party with respect to the Site within the meaning of Section 107(a) of CERCLA, 42 U.S.C.

§ 9607(a).

22. Respondent is a "person" within the meaning of Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

23. The Site constitutes a "facility" within the meaning of Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

24. Respondent has been given an opportunity to discuss with EPA the basis for issuance of this Settlement Agreement and its terms.

25. The actions required by this Settlement Agreement are necessary to protect the public health or welfare or the environment, are in the public interest, are consistent with CERCLA and the NCP, and are expected to expedite effective remedial action.

VII. NOTICE

26. By providing a copy of this Settlement Agreement to the NYSDEC, EPA is notifying the State of New York that this Settlement Agreement is being issued and that EPA is the lead agency for coordinating, overseeing, and enforcing the response actions required by this Settlement Agreement.

VIII. WORK TO BE PERFORMED

27. EPA is in the process of preparing a series of RI/FS work plans, which will include a groundwater monitoring well installation, sampling and analysis work plan ("GW Work Plan") for the Site. The GW Work Plan will be provided to Respondent and incorporated into and made an enforceable part of this Settlement Agreement. Respondent shall implement the GW Work Plan in accordance with Appendix 1 to this Settlement Agreement. In addition, Respondent shall perform such other investigations, studies, and response actions as the Respondent or EPA may propose and mutually agree to include as part of the Work under this Settlement Agreement. This Settlement Agreement may also be amended from time to time by mutual agreement of the Parties to add additional entities as Respondents should additional work need to be performed by such entities which is appropriately conducted under this Settlement Agreement.

28. All Work performed under this Settlement Agreement shall be under the direction and supervision of qualified personnel. EPA has determined that Respondent and GEI Consultants, Inc. are qualified to conduct the Work. Within thirty (30) days of the

effective date of this Settlement Agreement, Respondent shall provide written notice to EPA of the names, titles, and qualifications of any other personnel, including contractors, subcontractors, consultants and laboratories, to be used in carrying out the Work described in this Settlement Agreement, the GW Work Plan for the Site, and any deliverable that is to be approved by EPA pursuant to this Settlement Agreement, as it may be modified pursuant to Section XI, below. 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 Institute, January 5, 1995) (hereinafter, "ANSI/ASQC E4-1994"), 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) (hereinafter, "QA/R-2"), or equivalent documentation as determined by EPA. The qualifications of the persons undertaking the Work for Respondent shall be subject to EPA's review for verification that such persons meet minimum technical background and experience requirements. This Settlement Agreement is contingent upon Respondent's demonstration to EPA's satisfaction that Respondent is qualified to perform properly and promptly Work set forth in this Settlement Agreement and any other deliverable, as they may be modified pursuant to Section XI, below. If EPA disapproves, in writing, of any person's technical qualifications, Respondent shall notify EPA of the identity and qualifications of the replacement(s) within fourteen (14) days of the written notice. During the course of the Work required hereunder, Respondent shall notify EPA in writing of any changes in or additions to the personnel used to carry out such work, providing their names, titles, and qualifications. EPA shall have the same right to approve changes in and additions to personnel as it has hereunder regarding the initial notification.

29. Respondent shall conduct the Work required hereunder in accordance with: CERCLA; the NCP; "Interim Final Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA" (OSWER Directive # 9355.3-01, October 1988) or subsequently issued guidance; "Guidance for Data Usability in Risk Assessment," (OSWER Directive #9285.7-05, October 1990) or subsequently issued guidance; "Uniform Federal Policy for Implementing Quality Systems" ("UFP-QS"), EPA-505-F-03-001, March 2005 or subsequently issued guidance; "Uniform Federal Policy for Quality Assurance Project Plans" ("UFP-QAPP"), Parts 1, 2 and 3, EPA-505-B-04-900A, B and C, March 2005 or subsequently issued

guidance; EPA Region 2's "Clean and Green Policy" which may be found at <http://epa.gov/region2/superfund/greenremediation/policy.html>; "Guide to Management of Investigation-Derived Wastes" (OSWER Publication 9345.3-03FS, January 1992 or subsequently issued guidance); "Risk Assessment Guidance for Superfund Volume I. Human Health Evaluation Manual (Part A) Interim Final" (EPA/540/1-89/002, 1989); "Contaminated Sediment Management Strategy. U.S. Environmental Protection Agency" (EPA-823-R-98-001, April, 1998), "Principles for Managing Contaminated Sediment Risks at Hazardous Waste Sites. U.S. Environmental Protection Agency" (OSWER Directive 9285.6-08, February 12, 2002), "Contaminated Sediment Remediation Guidance for Hazardous Waste Sites. U.S. Environmental Protection Agency" (EPA-540/R-05/012, December 2005); "Evaluating Ecological Risk to Invertebrate Receptors from PAHs in Sediments at Hazardous Waste Sites. U.S. Environmental Protection Agency" (EPA/600/R-06/162F, October, 2009); Guidelines for Ecological Risk Assessment EPA/630/R-96/002F and Sediment Assessment and Monitoring Sheet #1 Using Fish Tissue Data to Monitor Remedy Effectiveness OSWER Directive 9200.1-77D; Ecological Risk Assessment Guidance: Process for Designing and Conducting Ecological Risk Assessments, Interim Final, June 1997 (EPA 540 -R-97-006); Guidelines for Conducting Ecological Risk Assessments, April 1998 (EPA/630/R-95/0028) and Generic Ecological Assessment Endpoints for Ecological Risk Assessment, October 2003 (EPA/630/P-02/004), as well as guidance referenced therein, and other guidance documents which EPA may identify to Respondent. The tasks that Respondent must perform are described in Appendix 1, the GW Work Plan and may be further described in any submittals hereunder. Respondent shall perform the Work in accordance with the schedules, standards, specifications, and other requirements which are identified in Appendix 1 to this Settlement Agreement and shall comply with all other requirements of this Settlement Agreement.

30. Within thirty (30) days of the effective date of this Settlement Agreement, Respondent shall submit to EPA a health and safety plan ("HSP"), which shall conform to those requirements set forth in the Occupational Safety and Health Administration ("OSHA") final rule entitled "Hazardous Waste Operations and Emergency Response," 29 CFR Section 1910.120, and the EPA guidance document "Standard Operating Safety Guides" (OSWER, 1988). The HSP must specify employee training, protective equipment and medical surveillance requirements, standard operating procedures, and a contingency plan. The HSP shall satisfy the requirements of the "Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities" (October 1985, DHHS NIOSH Publication No. 85-115), and any update thereto. All Site activities shall be performed in such a manner as to

ensure the safety and health of personnel so engaged. All Site activities shall be conducted in accordance with all pertinent general industry (29 CFR Part 1910) and construction (29 CFR Part 1926) U.S. Department of Labor, and OSHA standards, as well as any applicable State laws. If performance of any of the Work required by this Settlement Agreement requires alteration of the HSP, Respondent shall submit to EPA proposed amendments to the HSP for review and approval .

31. Within thirty (30) days of the effective date of this Settlement Agreement, Respondent shall submit to EPA a Quality Assurance Project Plan ("QAPP"), which shall conform to those requirements set forth in the GW Work Plan and EPA's guidances.

32. EPA reserves the right to comment on, modify and direct changes for all deliverables. If EPA disapproves or otherwise requires any modifications to any plan, report, or other item required to be submitted to EPA for approval pursuant to this Settlement Agreement, Respondent shall have fourteen (14) days from the receipt of such notice of disapproval or the required modifications, or a longer period if agreed to in writing by EPA, to correct all of the deficiencies in accordance with EPA's comments and resubmit the plan, report or other written document to EPA for approval. At such time as EPA determines that the plan, report, or other item is acceptable EPA will transmit to the Respondent a written notice to that effect.

33. In the event that Respondent amends or revises a report, plan or other submittal upon receipt of EPA comments, if EPA in its discretion subsequently disapproves of the revised submittal or any portion thereof, or if subsequent submittals do not fully reflect EPA's directions for changes related to performance of Work, EPA retains the right, in its sole discretion, to seek stipulated or statutory penalties, perform its own studies, complete any portion of the response action under CERCLA and the NCP, and seek reimbursement from the Respondent and/or other potentially responsible parties for its costs; terminate this Settlement Agreement; and/or seek any other appropriate relief.

34. In the event that EPA takes over some but not all of the Work, Respondent shall incorporate and integrate information supplied by EPA into its reports, as appropriate.

35. The failure of EPA to either expressly approve, disapprove, or comment upon Respondent's submissions within a specified time period(s) shall not be construed as approval by EPA.

36. Respondent shall assure that all Work performed, samples taken and analyses conducted conform to the requirements of the GW Work Plan, the EPA-approved QAPP and guidances identified therein. Respondent shall 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 ANSI/ASQC E4-1994, and QA/R-2 or equivalent documentation as determined by EPA. EPA may consider laboratories accredited under the National Environmental Laboratory Accreditation Program to meet the quality system requirements.

37. All hazardous substances, pollutants, or contaminants removed from the Site pursuant to this Settlement Agreement for off-Site treatment, storage, or disposal shall be treated, stored, or disposed of in compliance with (a) Section 121(d)(3) of CERCLA, 42 U.S.C. § 9621(d)(3), (b) Section 300.440 of the NCP, (c) the Solid Waste Disposal Act, 42 U.S.C. §§ 6901-6991, (d) the Toxic Substances Control Act ("TSCA"), 15 U.S.C. § 2601, et seq., and (e) all other applicable federal and New York State requirements.

38. If hazardous substances from the Site are to be shipped outside of the State of New York, Respondent shall provide prior notification of such waste shipments in accordance with the EPA Memorandum entitled "Notification of Out-of-State Shipments of Superfund Site Wastes" (OSWER Directive 9330.2-07, September 14, 1989). At least five (5) working days prior to such Waste shipments, Respondent shall notify the environmental agency of the accepting state of the following: (a) the name and location of the facility to which the Wastes are to be shipped; (b) the type and quantity of Waste to be shipped; (c) the expected schedule for the Waste shipments; (d) the method of transportation and name of transporter; and (e) the treatment and/or disposal method of the Waste streams.

39. Certificates of disposal must be provided to EPA upon Respondent's receipt of such. These certificates must be included in the periodic progress reports.

IX. NOTIFICATION AND REPORTING REQUIREMENTS

40. All reports and other documents submitted by Respondent to EPA (other than the monthly progress reports referred to below) which purport to document Respondent's compliance with the terms of this Settlement Agreement shall be signed by an individual who has been delegated this responsibility by Respondent, whose qualifications have been found by EPA to be acceptable pursuant

to Paragraph 28 of this Settlement Agreement, and who will certify that he/she has been fully authorized by Respondent to submit such a document and to legally bind Respondent thereto. Notwithstanding such a delegation of responsibility, Respondent shall remain liable for the proper performance of the Work required by this Settlement Agreement.

41. Until the termination of this Settlement Agreement, Respondent shall prepare and provide EPA with written periodic progress reports for milestones set forth in the GW Work Plan or any other approved work plan which: (1) describe the actions which have been taken toward achieving compliance with this Settlement Agreement since the previous report; (2) include all results of sampling, tests, modeling and all other data (including raw data) received or generated by or on behalf of Respondent since the previous report in the implementation of the Work required hereunder; (3) describe all actions, data and plans which are scheduled for the next work period and provide other information relating to the progress of work as is customary in the industry; (4) include information regarding percentage of completion, all delays encountered or anticipated that may affect the future schedule for completion of the Work required hereunder, and a description of all efforts made to mitigate those delays or anticipated delays; and (5) may include any other data or information that Respondent believes that EPA should consider and include in the administrative record for the RI/FS at the Site.

42. Respondent shall submit copies of all plans, reports, or other submissions required by this Settlement Agreement, or any approved plan, as set forth below. Any electronic submissions must be in a format that is compatible with EPA software and in database files and sizes to be specified by EPA. Reports should be submitted to the following:

4 copies: Remedial Project Manager - Gowanus Canal Site
(2 bound, Emergency and Remedial Response Division
1 unbound, U.S. Environmental Protection Agency, Region 2
1 electronic) 290 Broadway, 20th Floor
New York, New York 10007-1866

1 copy: Chief, New York/Caribbean Superfund Branch
Office of Regional Counsel
United States Environmental Protection Agency,
Region 2
290 Broadway, 17th Floor
New York, New York 10007-1866
Attn: Gowanus Canal Superfund Site Attorney

3 copies: Director, Division of Environmental Remediation
(2 unbound, N.Y. State Department of Environmental Conservation
1 electronic) 625 Broadway, 12th Floor
Albany, New York 12233-7011
Attn: Gowanus Canal Superfund Site

43. Respondent shall give EPA at least fourteen (14) days advanced notice of all field work or field activities to be performed by Respondent pursuant to this Settlement Agreement.

X. EMERGENCY RESPONSE AND NOTIFICATION OF RELEASES

44. Upon the occurrence of any event during performance of the Work required hereunder which, pursuant to Section 103 of CERCLA, 42 U.S.C. § 9603, requires reporting to the National Response Center (800) 424-8802, Respondent shall immediately orally notify the Chief of the Response and Prevention Branch of the Emergency and Remedial Response Division of EPA, Region 2, at (732) 321-6656, of the incident or Site conditions. Respondent shall also submit a written report to EPA within seven (7) days after the onset of such an event, setting forth the events that occurred and the measures taken or to be taken, if any, to mitigate any release or endangerment caused or threatened by the release and to prevent the reoccurrence of such a release. The reporting requirements of this Paragraph are in addition to, not in lieu of, reporting under CERCLA Section 103, 42 U.S.C. § 9603, and Section 304 of the Emergency Planning and Community Right-To-Know Act of 1986, 42 U.S.C. § 11004.

45. In the event of any action or occurrence during Respondent's performance of the Work required hereunder which causes or threatens to cause a release of a hazardous substance or which may present an immediate threat to public health or welfare or the environment, Respondent shall immediately take all appropriate action to prevent, abate, or minimize the threat and orally notify the EPA Project Coordinator or, in the event of his/her unavailability, the Chief of the New York Remediation Section of the Emergency and Remedial Response Division of EPA Region II at (212) 637-4258. Respondent shall take such action in accordance with applicable provisions of this Settlement Agreement and the approved submittals, including, but not limited to, the HSP.

XI. MODIFICATION OF THE WORK

46. If at any time during the Work, Respondent identifies a need for additional data, a memorandum documenting the need for

additional data shall be submitted to the EPA Project Coordinator within twenty (20) days of identification. 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. Notwithstanding the foregoing, Respondent may collect and submit to EPA data that Respondent has determined to be necessary or beneficial to the RI/FS, subject to EPA's determination that the manner and timing of such data collection does not affect other work or conditions in the Canal. Such work will become part of the administrative record for the Site. For example purposes only, such work may be supplemental activities to support EPA's RI/FS work plan, the conceptual Site model, various RI activities, and/or work related to the FS.

47. In addition to the authorities in the NCP, in the event that EPA determines that unanticipated or changed circumstances at the Site, or conditions posing an immediate threat to human health or welfare or the environment, warrant changes in the manner of implementation of the Work which Respondent has agreed to perform under this Settlement Agreement, or any submission thereunder, EPA will modify or amend, or direct Respondent to modify or amend, the Work accordingly. Respondent shall implement the Work as modified or amended.

48. EPA may determine that, in addition to tasks defined in the GW Work Plan, additional tasks may be necessary to accomplish the objectives of EPA's RI/FS. EPA may request, pursuant to this Settlement Agreement, that Respondent perform such additional tasks. If Respondent agrees, the additional tasks shall be completed according to the standards, specifications and schedule set forth or approved by EPA in a written modification to the Work or written Work supplement. EPA reserves the right to conduct the additional tasks itself at any point, to seek reimbursement for the costs associated with the additional tasks from Respondent or other parties, and/or to seek any other appropriate relief.

XII. PROJECT COORDINATORS, OTHER PERSONNEL

49. EPA has designated the following individual as its Project Coordinator with respect to the Site:

Christos Tsiamis
Remedial Project Manager
New York Remediation Branch
Emergency and Remedial Response Division
U.S. Environmental Protection Agency, Region 2
290 Broadway, 20th Floor

New York, NY 10007-1866
(212) 637-4257
tsiamis.christos@epa.gov

Not later than seven (7) days after the effective date of this Settlement Agreement, Respondent shall select its own Project Coordinator and shall notify EPA in writing of the name, address, qualifications, job title and telephone number of that Project Coordinator. He or she shall have technical expertise sufficient to adequately oversee, and shall be responsible for oversight of, the Work contemplated by this Settlement Agreement. Respondent's and EPA's Project Coordinators shall coordinate communications between EPA and Respondent. EPA and Respondent may change their respective Project Coordinators. Such a change shall be accomplished by notifying the other parties in writing at least ten (10) days prior to the change where possible, and concurrently with the change or as soon thereafter as possible in the event that advance notification is not possible.

50. EPA's Project Coordinator shall have the authority lawfully vested in a Remedial Project Manager and On-Scene Coordinator by the NCP. In addition, 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 he/she determines that conditions at the Site may present an immediate endangerment to public health or welfare or the environment. The absence of the EPA Project Coordinator from the area under study pursuant to this Settlement Agreement shall not be cause for the stoppage or delay of work.

51. All activities required of Respondent under the terms of this Settlement Agreement shall be performed only by qualified persons possessing all necessary permits, licenses, and other authorizations required by applicable law.

XIII. OVERSIGHT

52. During the implementation of the requirements of this Settlement Agreement, Respondent and its contractors and subcontractors shall be available for such conferences and inspections with EPA as EPA may determine are necessary for EPA to adequately oversee the Work being carried out and/or to be carried out.

53. Respondent and its employees, agents, contractors, representatives and consultants shall cooperate with EPA in its efforts to oversee Respondent's implementation of this Settlement Agreement.

XIV. SAMPLING, ACCESS AND DATA AVAILABILITY/ADMISSIBILITY

54. If any area to which access is necessary to perform Work under this Settlement Agreement is owned in whole or in part by parties other than Respondent, or if access to any properties other than the Site is needed to carry out any of the Work, Respondent shall use its best efforts to obtain access agreements from the present owners within forty (40) days of the effective date of this Settlement Agreement, or of the date when it is determined that access to such other properties is needed, as the case may be. All agreements pursuant to this Section shall provide access for EPA and NYSDEC and their contractors and oversight officials, and agreements for such access shall specify that Respondent is not EPA's or NYSDEC's representative with respect to liability associated with Site activities. Copies of such agreements shall be provided to EPA and NYSDEC upon request prior to Respondent's initiation of field activities. Respondent shall immediately notify EPA if after using their best efforts they are unable to obtain such agreements. For purposes of the time-critical implementation of the GW Work Plan, "best efforts" shall include identifying the present owners of such properties, taking appropriate steps to contact such owners, and in the event of refusal or other failure to obtain access for the GW Work Plan, promptly advising EPA in writing of such efforts. For purposes of conducting any removal or other response action which may be added to this Settlement Agreement and which requires extended field work on properties not owned by Respondent, "best efforts" may include the payment of reasonable sums of money in consideration of access. Respondent shall describe in writing their efforts to obtain such access. If Respondent cannot obtain access agreements, EPA may either (i) obtain access for Respondent or assist Respondent in gaining access, to the extent necessary to effectuate the response actions described herein, using such means as EPA deems appropriate; (ii) perform those tasks or activities with EPA contractors; or (iii) terminate the Settlement Agreement. Respondent shall reimburse EPA for all costs and attorney's fees incurred by the United States in obtaining such access, in accordance with the procedures in Paragraph 79. If EPA performs those tasks or activities with EPA contractors and does not terminate the Settlement Agreement, Respondent shall perform all other tasks or activities not requiring access to that property, and shall reimburse EPA for all costs incurred in performing such tasks or activities. Respondent shall integrate the results of any such tasks or activities undertaken by EPA into its plans, reports and other deliverables.

55. At all reasonable times, EPA and its authorized representatives shall have the authority to enter and freely move about all property at the Site and off-Site areas where work, if any, is being performed, for the purposes of inspecting conditions, activities and the results of activities, records, operating logs, and contracts related to the Site or Respondent and its contractor(s) pursuant to this Settlement Agreement; reviewing the progress of Respondent in carrying out the terms of this Settlement Agreement; conducting tests as EPA or its authorized representatives deem necessary; using a camera, sound recording device or other documentary type equipment; and verifying the data submitted to EPA by Respondent. Respondent agrees to provide EPA and its designated representatives with access 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. All parties with access to the Site under this Paragraph shall comply with all approved health and safety plans.

56. All data, records, photographs and other information created, maintained or received by Respondent or its agents, contractors or consultants in connection with implementation of the Work under this Settlement Agreement, including but not limited to contractual documents, quality assurance memoranda, raw data, field notes, laboratory analytical reports, invoices, receipts, work orders and disposal records, shall, without delay, be made available to EPA on request. Upon request by EPA, Respondent shall provide copies of all such documents and other items. 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, it shall provide 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; and 6) 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. Upon request by EPA or its designated representatives, Respondent shall provide EPA or its designated representatives with duplicate and/or split samples of any material sampled in connection with the implementation of this Settlement Agreement,

or allow EPA or its designated representatives to take such duplicate or split samples.

58. Respondent may assert a claim of business confidentiality under 40 C.F.R. § 2.203, covering part or all of the information submitted to EPA pursuant to the terms of this Settlement Agreement, provided such claim is allowed by Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7). This claim shall be asserted in the manner described by 40 C.F.R. § 2.203(b) and substantiated at the time the claim is made. Information determined to be confidential by EPA will be given the protection specified in 40 C.F.R. Part 2. If no such claim accompanies the information when it is submitted to EPA, it may be made available to the public by EPA without further notice to Respondent. Respondent agrees not to assert confidentiality claims with respect to any data related to Site conditions, sampling, or monitoring.

59. Notwithstanding any other provision of this Settlement Agreement, EPA hereby retains all of its information gathering, access and inspection authority under CERCLA, RCRA, TSCA, and any other applicable statute or regulation.

60. In entering into this Settlement Agreement, Respondent waives any objections to any data gathered, generated, or analyzed by EPA or Respondent, in the performance or oversight of the Work under this Settlement Agreement, that has been verified according to the quality assurance/quality control ("QA/QC") procedures required pursuant to this Settlement Agreement or the Work. If Respondent objects to any other data relating to this Settlement Agreement which is submitted in a monthly progress report in accordance with Paragraph 41 herein; Respondent shall submit to EPA a report that identifies and explains its objections, describes its views regarding the acceptable uses of the data, if any, and identifies any limitations to the use of the data. The report must be submitted to EPA within forty-five (45) days of the periodic progress report containing the data.

XV. OTHER APPLICABLE LAWS

61. Respondent shall comply with all laws that are applicable when performing the Work. No local, State, or federal permit shall be required for any portion of the Work, including studies, required hereunder which is conducted entirely on-Site, where such Work is carried out in compliance with Section 121 of CERCLA; however, Respondent must comply with the substantive requirements that would otherwise be included in such permits. For any Work performed pursuant to this Settlement Agreement which is not "on-Site", as defined in Sections 300.5 and

300.400(e) of the NCP, Respondent shall obtain all permits necessary under applicable laws and shall submit timely applications and requests for any such permits. This Settlement Agreement is not, nor shall it act as, a permit issued pursuant to any federal or state statute or regulation.

XVI. RECORD PRESERVATION

62. All records and documents in Respondent's possession that relate in any way to the Site shall be preserved during the conduct of this Settlement Agreement and for a minimum of ten (10) years after commencement of construction of any remedial action which is selected. Respondent shall acquire and retain copies of all documents that relate to the Site and are in the possession of its employees, agents, accountants, contractors, or attorneys. After this 10-year period, Respondent shall notify EPA at least ninety (90) days before the documents are scheduled to be destroyed. If EPA requests that the documents be saved, Respondent shall, at no cost to EPA, give the documents or copies of the documents to EPA.

XVII. COMMUNITY RELATIONS

63. Respondent shall cooperate with EPA in providing information relating to the Work required hereunder to the public. To the extent requested by EPA, Respondent shall participate in the preparation of all appropriate information disseminated to the public and make presentations at, and participate in, public meetings which may be held or sponsored by EPA to explain activities at or concerning the Site.

XVIII. DISPUTE RESOLUTION

64. Any significant dispute between Respondent and EPA concerning this Settlement Agreement, other than Work Takeover, shall be resolved as follows: if Respondent objects to an EPA notice of disapproval or determination made pursuant to this Settlement Agreement, Respondent shall notify EPA's Project Coordinator, in writing, of its objections within fourteen (14) days of receipt of the disapproval notice or determination. Respondent's written objections shall define the dispute, state the basis of Respondent's objections, and be sent to EPA by certified mail, return receipt requested. EPA and Respondent then have an additional fourteen (14) days to reach agreement. If an agreement is not reached within the fourteen (14) days, Respondent may, within seven (7) days of the conclusion of the aforementioned 14-day period, request a determination by the Deputy Director of the Emergency and Remedial Response Division,

EPA Region 2 (hereinafter, the "Deputy Director"). Such a request by Respondent shall be made in writing. The determination of the Deputy Director is EPA's final decision. Respondent shall proceed in accordance with 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 do not actually perform the Work in accordance with EPA's final decision, EPA reserves the right in its sole discretion to conduct the Work itself and seek reimbursement from Respondent of the costs of that work, to seek enforcement of the decision, to seek stipulated penalties, and/or to seek any other appropriate relief.

65. Respondent is not relieved of its obligations to perform and conduct activities and submit deliverables in accordance with the schedules which are approved by EPA and applicable to the Work required pursuant to this Settlement Agreement, while a matter is pending in dispute resolution. The invocation of dispute resolution does not stay the accrual of stipulated penalties under this Settlement Agreement.

XIX. DELAY IN PERFORMANCE/STIPULATED PENALTIES

66. For each day that Respondent fails to comply with any of the requirements of this Settlement Agreement, EPA may assess, and if so, Respondent shall pay, stipulated penalties in accordance with the terms below. For purposes of this Paragraph, the term "fails to comply" shall include, but is not limited to, failure by Respondent to perform the Work identified in Appendix 1 and other deliverables approved under this Settlement Agreement, failure to submit an original or revised deliverable to EPA, as required by the terms of this Settlement Agreement, within the time limits set forth in or established pursuant to this Settlement Agreement, failure to revise a deliverable to fully conform with EPA's comments, and submittal of an original deliverable which is of such poor quality as to not even qualify as a bona fide submission. Stipulated penalties begin to accrue on the day that performance is due or a violation occurs, and shall continue to accrue until the noncompliance is corrected, or until EPA notifies Respondent in writing that EPA is assuming responsibility for the portion of Work for which penalties are accruing, whichever occurs earlier. Where a revised submission by Respondent is required by EPA, stipulated penalties shall continue to accrue until a deliverable satisfactory to EPA is produced. EPA will provide written notice of those violations for which EPA is assessing stipulated penalties; nevertheless, penalties shall accrue from the day a violation commences. Payment shall be due within thirty (30) days of receipt of a demand letter from EPA, or within thirty (30) days of completion

of dispute resolution under Section XVIII (should the dispute resolution procedures be timely invoked by Respondent with respect to an EPA assessment of stipulated penalties), whichever is later.

67. Respondent shall pay interest on any unpaid balance, which shall begin to accrue at the end of the 30-day period referred to in Paragraph 66, above, at the rate established pursuant to Section 107(a) of CERCLA, 42 U.S.C. § 9607(a).

68. Payment of any such penalty to EPA shall be made by Electronic Funds Transfer ("EFT") in the same manner as provided by Paragraph 79 below. Respondent shall provide notice of such payment by letter referencing the name of the Site ("Gowanus Canal Superfund Site") and the index number of this Settlement Agreement to the EPA addressees provided in Paragraphs 42 and 79.

69. For all violations of this Settlement Agreement, except as provided in Paragraph 70 below, stipulated penalties shall accrue as follows:

<u>Period of Non-compliance</u>	<u>Penalty Per Violation Per Day</u>
1 st through 7 th day	\$750.00
8 th through 15 th day	\$1,000.00
16 th through 28 th day	\$1,500.00
29 th day and beyond	\$3,000.00

70. For the periodic progress reports required pursuant to Paragraph 35 above, stipulated penalties shall accrue in the amount of \$250 per day, per violation, for the first week of noncompliance; \$500 per day, per violation, for the 8th through 15th day of noncompliance; \$1,000 per day, per violation, for the 16th day through the 28th day of noncompliance; and \$2,000 per day, per violation, for the 29th day of noncompliance and beyond.

71. Respondent may dispute EPA's right to the stated amount of penalties by invoking the dispute resolution procedures under Section XVIII herein. Penalties shall accrue but need not be paid during the dispute resolution period. If Respondent does not prevail, all accrued penalties shall be due to EPA within thirty (30) days of EPA's determination. If Respondent prevails in the dispute resolution process, no penalties shall be paid.

72. In the event that EPA requires that corrections to an interim deliverable be reflected in the next deliverable, rather than requiring that the interim deliverable be resubmitted, any

stipulated penalties which accrue for that interim deliverable shall cease to accrue on the date of such decision by EPA.

73. The stipulated penalties provisions of this Settlement Agreement do not preclude EPA from pursuing any other remedies or sanctions which are available to EPA because of Respondent's failure to comply with this Settlement Agreement, including but not limited to EPA conducting all or part of the Work. Payment of stipulated penalties does not alter Respondent's obligation to complete performance under this Settlement Agreement.

XX. FORCE MAJEURE

74. "Force majeure", for purposes of this Settlement Agreement, is defined as any event arising from causes beyond the control of Respondent and of any entity controlling, controlled by, or under common control with Respondent, including its contractors and subcontractors, that delays the timely performance of any obligation under this Settlement Agreement notwithstanding Respondent's best efforts to avoid the delay. The requirement that Respondent exercise "best efforts to avoid the delay" includes using best efforts to anticipate any potential force majeure event and best efforts to address the effects of any potential force majeure event (1) as it is occurring and (2) following the potential force majeure event, such that the delay is minimized to the greatest extent practicable. *Force majeure* does not include financial inability to complete the Work or increased cost of performance.

75. 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 by telephone the EPA Project Coordinator (or, in his absence, the Chief of the Central New York Remediation Section of the Emergency and Remedial Response Division of EPA Region 2 at (212) 637-4258) within forty-eight (48) hours of when Respondent or its agents, contractors or representatives knew or should have known that the event might cause a delay. Within ten (10) business days thereafter, Respondent shall provide in writing: the reasons for the delay; Respondent's rationale for interpreting the circumstances as constituting a force majeure event (should that be Respondent's claim); 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 mitigate the effect of the delay; and a statement as to whether, in the opinion of Respondent, such event may cause or contribute to an endangerment to public health, welfare or the environment. Such written notice shall be

accompanied by all available pertinent documentation, including, but not limited to, third-party correspondence. Respondent shall exercise best efforts to avoid or minimize any delay and any effects of a delay. Failure to comply with the above requirements shall preclude Respondent from asserting any claim of force majeure.

76. If 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 EPA for such time as is necessary to complete those obligations. An extension of the time for performance of the obligation directly affected by the force majeure event shall not, of itself, extend the time for performance of any other obligation.

77. If EPA does not agree that the delay or anticipated delay has been or will be caused by a force majeure event or if Respondent objects to the length of the extension determined by EPA pursuant to Paragraph 76, above, the issue shall be subject to the dispute resolution procedures set forth in Section XVIII of this Settlement Agreement. In order to qualify for a force majeure defense, Respondent shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a force majeure event, that the duration of the delay was or will be warranted under the circumstances, that Respondent did exercise or is exercising due diligence by using its best efforts to avoid and mitigate the effects of the delay, and that Respondent complied with the requirements of Paragraph 74.

78. Should Respondent carry the burden set forth in Paragraph 74, the delay at issue shall not be deemed a violation of the affected obligation of this Settlement Agreement.

XXI. REIMBURSEMENT

79. Respondent hereby agrees to reimburse EPA for all Response Costs for Work that Respondent has expressly agreed to conduct under Section VIII, Work to be Performed. EPA will periodically send billings to Respondent for the costs paid by EPA. EPA's billings will be accompanied by a printout of cost data in EPA's financial management system. EPA's costs may include costs paid by EPA in overseeing Respondent's implementation of the requirements of this Settlement Agreement (and in paying for NYSDEC's participation in such oversight) and any Work performed by EPA, including any costs incurred while obtaining access where Respondent has agreed to conduct Work on third-party

property. Such costs will include both direct and indirect costs, including but not limited to, any time and travel costs of personnel, contractor costs (including annual allocation costs), cooperative agreement costs, costs of compliance monitoring, including the collection and analysis of split samples, inspection of Work activities, Site visits, discussions regarding disputes that may arise as a result of this Settlement Agreement, review and approval or disapproval of reports, and costs of redoing any of Respondent's tasks. Respondent shall, within thirty (30) days of receipt of each such billing, remit payment of the billed amount via Electronic Funds Transfer ("EFT"). To effect payment via EFT, Respondent shall instruct its bank to remit payment in the required amount via EFT using the following information, or such other updated EFT information that EPA may subsequently provide to Respondent:

- . Amount of payment
- . Bank: **Federal Reserve Bank of New York**
- . Account code for Federal Reserve Bank account receiving the payment: **68010727**
- . Federal Reserve Bank ABA Routing Number: **021030004**
- . SWIFT Address: **FRNYUS33**
33 Liberty Street
New York, NY 10045
- . Field Tag 4200 of the Fedwire message should read:
D 68010727 Environmental Protection Agency
- . Name of remitter:
- . Settlement Agreement Index number: **CERCLA - 02-2010-2009**
- . Site/spill identifier: **02-ZP**

At the time of payment, Respondent shall send notice that such payment has been made by email to acctsreceivable.cinwd@epa.gov, and to:

U.S. Environmental Protection Agency
Attn: Richard Rice
26 W. Martin Luther King Drive
Cincinnati Finance Center, MS: NWD
Cincinnati, Ohio 45268
e-mail: rice.richard@epa.gov

and:

Christos Tsiamis, Remedial Project Manager
Emergency and Remedial Response Division
U.S. Environmental Protection Agency, Region II
290 Broadway, 20th Floor
New York, NY 10007-1866
e-mail: tsiamis.christos@epa.gov

as well as to:

Brian E. Carr
Assistant Regional Counsel
Office of Regional Counsel
U.S. Environmental Protection Agency, Region II
290 Broadway, 17th Floor
New York, New York 10007-1866
e-mail: carr.brian@epa.gov

Such notice shall reference the date of the EFT, the payment amount, the name of the Site, the Settlement Agreement index number, and Respondent's name and address.

The total amount to be paid by Respondent pursuant to this Paragraph shall be deposited into the Gowanus Canal Superfund Site Special Account within the 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 EPA to the EPA Hazardous Substance Superfund.

80. Within fourteen (14) days of receipt of a bill under Paragraph 79, Respondent may invoke the dispute resolution procedures of Section XVIII of this Settlement Agreement with respect to the bill. However, Respondent agrees to limit any disputes concerning such costs to mathematical errors and the inclusion of costs which are inconsistent with the NCP or are outside the scope of Paragraph 79 above. Respondent shall identify all contested costs and the basis of its objection. All undisputed costs shall be remitted by Respondent to EPA in accordance with the schedule set forth above. All disputed costs shall be paid by Respondent into an interest-bearing escrow account at the time of invocation of dispute resolution by Respondent. Respondent shall send to EPA 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. Within five (5) days of the resolution of the dispute under Section XVIII above, Respondent shall remit to EPA, in the manner described in Paragraph 79, the amount agreed upon by the parties under Section XVIII or, if no agreement is reached, then the amount directed by the Deputy Director (with accrued interest). The balance of the escrow account, if any, may be disbursed to Respondent. Respondent bears the burden of establishing an EPA mathematical error or the inclusion of costs which are inconsistent with the NCP or are outside the scope of Paragraph 79.

81. Respondent shall pay interest on any amounts overdue under Paragraphs 79 or 80. Such interest shall begin to accrue on the first day that payment is overdue. Interest shall accrue at the rate of interest on investments of the Hazardous Substances Superfund, in accordance with Section 107(a) of CERCLA, 42 U.S.C. Section 9607(a).

XXII. COVENANT NOT TO SUE BY EPA

82. 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, EPA covenants not to sue or to take administrative action against Respondent pursuant to Sections 106 and 107(a) of CERCLA, 42 U.S.C. §§ 9606 and 9607(a), for the Work and Response Costs. This covenant not to sue shall take effect upon the Effective Date and is conditioned upon the complete and satisfactory performance by Respondent of all obligations under this Settlement Agreement, including, but not limited to, payment of Response Costs pursuant to Section XXI. This covenant not to sue extends only to Respondent and does not extend to any other person.

XXIII. RESERVATIONS OF RIGHTS BY EPA

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

84. The covenant not to sue set forth in Section XXII above does not pertain to any matters other than those expressly identified therein. EPA reserves, and this Settlement Agreement is without prejudice to, all rights against Respondent with respect to all other matters, including, but not limited to:

a. 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 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 hazardous substances outside of the Site; and

g. liability for costs incurred or to be incurred by the Agency for Toxic Substances and Disease Registry related to the Site.

85. Work Takeover. In the event EPA determines that Respondent has ceased implementation of any portion of the Work, is seriously or repeatedly deficient or late in its performance of the Work, or is implementing the Work in a manner which may cause an endangerment to human health or the environment, EPA may assume the performance of all or any portion of the Work as EPA determines necessary. Respondent may invoke the procedures set forth in Section XV (Dispute Resolution) to dispute EPA's determination that takeover of the Work is warranted under this Paragraph. Costs incurred by EPA in performing the Work pursuant to this Paragraph shall be considered Response Costs that Respondent shall pay pursuant to Section XXI (Reimbursement). Notwithstanding any other provision of this Settlement Agreement, EPA retains all authority and reserves all rights to take any and all response actions authorized by law.

XXIV. COVENANT NOT TO SUE BY RESPONDENT

86. Respondent covenants not to sue and agree not to assert any claims or causes of action against the United States, or its contractors or employees, with respect to the Work, Response Costs, 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 Response Costs have or will be incurred, including any claim under the United States Constitution, the New York State 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 Response Costs; provided however, this Settlement Agreement shall not have any effect on claims or causes of action that Respondents have or may have against the United States or any of its agencies or departments, other than EPA, as responsible parties relating or referring to the Site.

87. 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).

88. Nothing in this Settlement Agreement shall constitute or be construed as a release from any claim, cause of action, or demand in law or equity against any "person," as that term is defined in Section 101(21) of CERCLA, not a signatory to this Settlement Agreement for any liability it may have arising out of or relating in any way to the generation, storage, treatment, handling, transportation, release, or disposal of any hazardous substances, pollutants, or contaminants found at, taken to, or taken from the Site. Nothing herein shall constitute a finding that Respondent is the only responsible party with respect to the release and threatened release of hazardous substances at or from the Site.

XXV. OTHER CLAIMS

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

90. Except as expressly provided in Section XXII (Covenant Not to Sue by EPA), nothing in this Settlement Agreement constitutes a satisfaction of or release from any claim or cause of action against Respondent or any person not a party to this Settlement Agreement, for any liability such person may have under CERCLA, other statutes, or common law, including but not limited to any

claims of the United States for costs, damages and interest under Sections 106 and 107 of CERCLA, 42 U.S.C. §§ 9606 and 9607.

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

XXVI. CONTRIBUTION PROTECTION

92. a. 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 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 and Response Costs.

b. The Parties agree that this Settlement Agreement constitutes an administrative settlement for purposes of Section 113(f)(3)(B) of CERCLA, 42 U.S.C. § 9613(f)(3)(B), pursuant to which Respondent has, as of the Effective Date, resolved its liability to the United States for the Work and Response Costs.

c. Nothing in this Settlement Agreement precludes the United States or Respondent from asserting any claims, causes of action, or demands for indemnification, contribution, or cost recovery against any persons not parties to this Settlement Agreement. Nothing herein diminishes the right of the United States, pursuant to Sections 113(f)(2) and (3) of CERCLA, 42 U.S.C. § 9613(f)(2)(3), to pursue any such persons to obtain additional response costs or response action and to enter into settlements that give rise to contribution protection pursuant to Section 113(f)(2).

XXVII. INDEMNIFICATION

93. 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, its 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, its officers, directors, employees, agents, contractors, subcontractors and any persons acting on its behalf or under its 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.

94. 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.

95. 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 any one or more of Respondent and any person for performance of Work on or relating to the Site. In addition, Respondent shall indemnify and hold harmless the United States with respect to any and all claims for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between Respondent and any person for performance of Work on or relating to the Site.

XXVIII. INSURANCE

96. At least twenty (20) 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 naming the EPA as an additional insured. In addition, for the duration of the Settlement Agreement, Respondent shall satisfy, or shall ensure that its 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 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.

XXIX. FINANCIAL ASSURANCE

97. Respondent has demonstrated the ability to complete the Work required by this Settlement Agreement and to pay all claims that arise from the performance of the Work. If EPA determines that the financial assurances demonstrated by Respondent pursuant to this Paragraph are inadequate, Respondent shall, within thirty (30) days after receipt of notice of EPA's determination, obtain and present to EPA for approval, a method of establishing additional financial assurances meeting the requirements of this Paragraph.

XXX. EFFECTIVE DATE AND SUBSEQUENT MODIFICATION

98. This Settlement Agreement shall become effective seven (7) days from the date that the Settlement Agreement is executed by EPA. All times for performance of actions or activities required herein will be calculated from said effective date.

99. This Settlement Agreement may be amended by mutual agreement of EPA and Respondent. Amendments shall be in writing and shall be effective when signed by EPA.

100. No informal advice, guidance, suggestions, or comments by EPA regarding reports, plans, specifications, schedules, and any other writing submitted by Respondent will be construed as relieving Respondent of its obligations to obtain such formal approval as may be required by this Settlement Agreement. Any deliverables, plans, technical memoranda, reports (other than progress reports), specifications, schedules and other documents required to be submitted to EPA pursuant to this Settlement Agreement shall, upon approval by EPA, be deemed to be incorporated in and an enforceable part of this Settlement Agreement.

XXXI. SEVERABILITY/INTEGRATION/APPENDICES/COUNTERPARTS

101. If a court issues an order that invalidates any provision of this Settlement Agreement or finds that Respondent need not 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 excused by the court's order.

102. This Settlement Agreement and its appendices 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 1 = Statement of Work to be performed by Respondent
- Appendix 2 = List of documents provided by Respondent

XXXII. TERMINATION AND SATISFACTION

103. This Settlement Agreement shall terminate when Respondent demonstrates in writing and certifies to the satisfaction of EPA that all activities required under this Settlement Agreement - including any additional Work required pursuant to Section XI above, payment of costs in accordance with Section XXI of this Settlement Agreement, and payment of any stipulated penalties demanded by EPA - have been performed and EPA has approved the certification in writing. EPA's written approval shall not, however, terminate Respondent's obligation to comply with any of Respondent's remaining obligations under this Settlement Agreement, including record preservation.

104. The certification referred to in Paragraph 103, above, shall be signed by an authorized representative of Respondent. Such representative shall make the following attestation:

"Under penalty of law, I certify that to the best of my knowledge, after appropriate inquiries of all relevant persons involved in the preparation of the report, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

U.S. ENVIRONMENTAL PROTECTION AGENCY



WALTER E. MUGDAN
Director
Emergency and Remedial Response Division
U.S. Environmental Protection Agency
Region 2

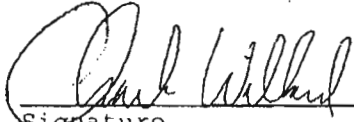
4/29/10
Date

Gowanus Canal Superfund Site
Administrative Settlement Agreement and Order for Investigation,
Sampling and Evaluation, Index No. CERCLA-02-2010-2009

CONSENT

The Respondent identified below has had an opportunity to confer with EPA regarding this Settlement Agreement. Respondent hereby consents to the issuance of this Settlement Agreement and to its terms. The individual executing this Settlement Agreement on behalf of Respondent certifies under penalty of perjury under the laws of the United States that he or she is fully and legally authorized to agree to the terms and conditions of this Settlement Agreement and to bind Respondent thereto.

FOR RESPONDENT Brooklyn Union Gas Company d/b/a National Grid NY

By: 
Signature

Date: 4/28/2010

Charles Willard
Printed Name

Director, Site Investigation + Remediation
Title

Appendix 1 = Statement of Work to be performed
by Respondent

Monitoring Well Installation Plan

Gowanus Canal Proposed Superfund Site Brooklyn, NY

I. Introduction

An upland hydrogeological investigation will be implemented in support of the Gowanus Canal Proposed Superfund Site investigation in Brooklyn, New York. The purpose of the upland investigation is to evaluate groundwater to surface water interaction (GSI) and the potential for groundwater contributions to the Gowanus Canal surface water body. The study area contains some pre-existing wells which were installed under a NYC DEC Order on Consent. These wells may be used for this study along with other locations that may be required by the EPA and/or NYS DEC. As such, the hydrogeological investigation will consist of installing new wells and utilizing a pre-existing network of monitoring well couplets in the shallow and intermediate depth overburden soils to obtain data for the groundwater relative to the base of the canal. Monitoring well couplets consisting of both a shallow and an intermediate well will be positioned at locations immediately adjacent to the canal and several hundred feet inland in order to evaluate both vertical and lateral groundwater flow characteristics. Details of the proposed investigation are provided below.

II. Scope of Work

This monitoring well installation plan is divided into the following tasks:

- **Task 1** Property Access Support
- **Task 2** Drill, Install, and Develop Monitoring Well Network
- **Task 3** Groundwater Sampling

Task 1 – Property Access Support

The proposed monitoring wells have been located to the extent possible within public street and sidewalk areas. Some well locations, however, are proposed on private property due to the needed spatial distribution and areal coverage for the well network. This task includes activities related to securing right-of-way access for installation of the monitoring wells from either New York City or private property owners. The general activities that will be completed as part of this task will consist of the following:

- Contact the City of New York Tax Assessor's office to obtain Block/Lot maps for the parcels of interest and identify the owners of the properties.
- Obtain from New York City, complete, and file applications for access based on the site and ownership evaluations.
- Work with / support USEPA in contacting property owners to secure property access agreements.

Task 2 – Drill, Install, and Develop Monitoring Well Network

Geology within the study area consists of glacial outwash deposits, alluvial deposits and fill that are laterally and vertically heterogeneous. Characterization will be dependant on adequately evaluating these horizontal and vertical variations throughout the length of the approximately 1.5 mile long canal (i.e. approximately 3 miles of canal frontage including the east and west sides of the canal).

Figure 1 depicts the conceptual layout for the monitoring well network including installation of 63 new wells along approximately 3 miles of canal frontage plus use of existing monitoring wells. Note that each point on the figure represents a well pair consisting of two wells (shallow and intermediate) except where noted at the Former Fulton MGP Site. The distribution of the proposed wells (new and existing) is summarized below:

- Use approximately 13 existing wells at former Fulton, Carroll Gardens and Metropolitan MGP sites
- Add 3 intermediate depth wells at Former Fulton MGP site to supplement existing shallow wells.
- Install 15 well pairs (shallow & intermediate) for lateral distribution on west side of canal
- Install 14 well pairs (shallow & intermediate) for lateral distribution on east side of canal
- Install 1 well pair (shallow & intermediate) at the head of the canal by Butler St.

Monitoring wells will be constructed of 2-inch diameter Schedule 40 PVC well casing with a 10-foot long machine slotted screen with 0.01-inch diameter (10-slot) slotting. The wells will be completed using 9-inch diameter flush-mount manhole completions with locking well caps.

The shallow wells will be installed straddling the water table which is estimated from previous work as occurring between 6 to 10 feet below ground surface (bgs) near the canal and 15 to 18 ft bgs further inland. The intermediate depth wells will be designed on a case-by-case basis depending on local ground surface elevation and depth of the canal bottom (i.e. the elevation of the top of the native sediments underlying the canal as opposed to the top of the soft "mucky" accumulated recent sediments). The intermediate wells will be designed so that the top of the 10-foot long screen is positioned approximately 5-feet below the top of the native sediment at the bottom of the canal. The top of the well screen for the intermediate depth wells is estimated to range from 25 to 40 ft bgs. Information on the depth of the native sediments in the canal will be derived from the sediment coring investigation in the canal.

Drilling operations will be performed using a hollow stem auger (HSA) drill rig utilizing 4 ¼-inch inner diameter augers. Continuous soil coring will be performed utilizing 2-inch diameter by 2-foot long split spoon samplers (or equivalent) to facilitate geologic observations at the drilling locations. The lithology of the soil cores will be logged and each core will be screened utilizing a photoionization detector (PID) and visually observed for signs of contamination. Photographs of soil cores will be collected as needed. Soil samples for laboratory analysis will not be collected.

The newly installed wells will be developed using a surge block and submersible pump. The monitoring wells will be surveyed (location and elevation) and incorporated onto the overall site plan.

Investigation derived wastes (IDW) consisting of soil cuttings and groundwater will be managed. The drilling subcontractor will containerize soil and water wastes in 55-gallon drums at the work-site and transport them the short distance to the staging area without manifesting. Waste profiles will be generated based on sampling of the IDW prior to off-site disposal.

Task 3 – Groundwater Sampling

The comprehensive network of existing and newly installed wells will be used to evaluate groundwater conditions under a groundwater monitoring program consisting of:

- Synoptic water elevation measurements in wells and canal – monthly for 1 year
- Continuous water elevation data logging in select wells and canal for 1 week to evaluate tidal influences
- One round of groundwater sampling for TCL/TAL parameters (incl. Hg and CN) performed a minimum of two weeks following installation and development of the new monitoring wells. Sampling will be performed using submersible pumps following USEPA's low-stress groundwater sampling procedures.

Appendix 2 = List of documents provided by
Respondent

Gowanus Canal Reports

- March 2003 *Historical Study of the Gowanus Canal, Brooklyn, New York*. Submitted to KeySpan Energy, Inc., Submitted by GEI Consultants, Inc.
- June 8, 2005 Letter to Joseph M. Moloughney (NYSDEC) from Tracey L. Bell (KeySpan) Re: *Carroll Gardens/Public Place Site Former Citizens Gas Works Manufactured Gas Plant Site, Site No. V00360-2, Gowanus Canal Sediment Sampling Work Plan*
- October 24, 2005 *Health and Safety Plan, Gowanus Canal, Brooklyn, New York, Submitted to: KeySpan Corporation, Submitted by: GEI Consultants, Inc.*
- December 2005 *Draft Field Sampling Plan, Gowanus Canal, Brooklyn, New York, Submitted to: KeySpan Corporation, Submitted by: GEI Consultants, Inc.*
- December 2005 *Draft Quality Assurance Project Plan, Gowanus Canal, Brooklyn, New York, Submitted to: KeySpan Corporation, Submitted by: GEI Consultants, Inc.*
- December 2005 *Fact Sheet - Keyspan to Conduct Sampling in and along Gowanus Canal; Project Approved by NYSDEC to Evaluate All Environmental Impacts* Prepared by: KeySpan Corporation.
- June 1, 2006 Letter to Amen M. Omorogbe (NYSDEC) from Tracey L. Bell (KeySpan) Re: *Gowanus Canal (Vicinity of Carroll Gardens/Public Place Site) Interim Data Deliverable*
- September 12, 2006 Red Hook Tar Sampling Prepared for Keyspan Corporation Prepared by GEI Consultants, Inc.
- February 15, 2007 *Gowanus Canal Sediment Investigation Summary of Sediment Investigation Findings, Submitted to: Robert W. Schick (NYSDEC) Submitted by: GEI Consultants, Inc.*
- April 2007 *Draft Gowanus Canal Investigation Executive Summary Report AOC Index No. A2-0523-0705, Submitted to: KeySpan Corporation, Submitted by: GEI Consultants, Inc.*
- March 2007 *Draft Report Environmental Forensic Investigation Gowanus Canal Brooklyn, New York, Prepared for KeySpan Corporation, Prepared by NewFields Environmental Forensic Practice, LLC*
- March 2007 *Draft Gowanus Canal Ecological Investigation Report Submitted to KeySpan Corporation, Submitted by: GEI Consultants, Inc.*
- April 2007 *Draft Remedial Investigation Technical Report Gowanus Canal, Brooklyn, New York AOC Index No. A2-0523-0705, Submitted to: KeySpan Corporation, Submitted by: GEI Consultants, Inc.*
- December 2009 *Gowanus Canal Investigation Executive Summary Report AOC Index No. A2-0523-0705, Submitted to: NYSDEC, Submitted by: National Grid, Prepared by: GEI Consultants, Inc.*
- December 2009 *Gowanus Canal Ecological Investigation Report, Submitted to: National Grid, Submitted by: GEI Consultants, Inc.*

- December 2009 *Remedial Investigation Technical Report Gowanus Canal, Brooklyn, New York AOC Index No. A2-0523-0705, Submitted to: National Grid, Submitted by: GEI Consultants, Inc.*

Citizens Gas Works (Carroll Gardens/Public Place) Reports

- February 11, 2003 *Remedial Investigation Work Plan Citizens Gas Works Former Manufactured Gas Plant Site* Submitted to: KeySpan Energy Corporation by: GEI Consultants, Inc.
- February 19, 2003 *Fact Sheet 1 Citizens Gas Works Former MGP Site, Site No. V00360-2* Prepared by: KeySpan Corporation
- February 28, 2003 *Remedial Investigation Health and Safety Plan Citizens Gas Works Former Manufactured Gas Plant Site* Submitted to: KeySpan Energy Corporation by: GEI Consultants, Inc.
- October 2004 *Fact Sheet – Supplemental Remedial Investigation to be Conducted at Former Manufactured Gas Plant, Citizens Gas Works Former MGP Site, Site No. V00360-2* Prepared by: KeySpan Corporation
- April 14, 2005 Letter to Joseph M. Moloughney (NYSDEC) from Tracey L. Bell (KeySpan) Re: *Carroll Gardens/Public Place Site [Former Citizens Gas Works Manufactured Gas Plant (MGP) Site] Groundwater Monitoring Well Inspection Work Plan.*
- July 6, 2005 *Groundwater Monitoring Well Inspection Letter Report and Video Logs* Submitted to Joseph M. Moloughney (NYSDEC) by: GEI Consultants, Inc.
- July 18, 2005 *Fact Sheet 2 Citizens Gas Works (Public Place) Former MGP Site, Site No. V00360-2* Prepared by: KeySpan Corporation
- July 22, 2005 Letter to Joseph M. Moloughney (NYSDEC) from Tracey L. Bell (KeySpan) Re: *Carroll Gardens/Public Place Site [Former Citizens Gas Works Manufactured Gas Plant (MGP) Site No. V00360-2 Groundwater Monitoring Well Abandonment*
- October 2005 *Final Remedial Investigation Report Carroll Gardens/Public Place Brooklyn, New York VCA Index No. A2-0460-0502, Site No. V00360-2, Submitted to KeySpan Corporation, Submitted by: GEI Consultants, Inc.*
- October 31, 2005 Letter to Joseph M. Moloughney (NYSDEC) from Tracey L. Bell (KeySpan) Re: *Supplemental Remedial Investigation (RI) Work Plan Gardens/Public Place Brooklyn, New York VCA Index No. A2-0460-0502, Site No. V00360-2*
- September 22, 2006 Letter to Amen M. Omorogbe (NYSDEC) from Tracey L. Bell (KeySpan) Re: *Conceptual Remedy Scoping Letter Carroll Gardens/Public Place (Citizens Gas Works Former MGP Site) AOC Index No. A2-0460-0502 Site No V00360-2*
- December 11, 2006 Letter to Amen M. Omorogbe (NYSDEC) from Tracey L. Bell (KeySpan) Re: *Remedial Action Work Plan Scoping Letter Carroll Gardens/Public Place Brooklyn, New York VCA Index No. A2-0460-0502, Site No. V00360-2*
- December 21, 2006 Letter to Amen M. Omorogbe (NYSDEC) from Tracey L. Bell (KeySpan) Re: *Remedial Alternative Analysis Carroll Gardens/Public Place (Citizens Gas Works Former MGP Site AOC Index No. A2-0460-0502, Site No. V00360-2*

- December 21, 2006 Letter to Amen M. Omorogbe (NYSDEC) from Tracey L. Bell (KeySpan) Re: *Groundwater Monitoring Well Abandonment Report Carroll Gardens/Public Place Site [Former Citizens Gas Works Manufactured Gas Plant (MGP) Site] Brooklyn, New York Site Number: V00360-2.*
- February 2007 *Fact Sheet – Remedial Action Proposed for the On-Site Portion of the Former Carroll Gardens MGP Site, Former Carroll Gardens/Public Place MGP Site, Site No. V00360* Prepared by: KeySpan Corporation
- March 22, 2007 Letter to Amen M. Omorogbe (NYSDEC) from Tracey L. Bell (KeySpan) Re: *Remedial Alternative Analysis Carroll Gardens/Public Place (Citizens Gas Works Former MGP Site AOC Index No. A2-0460-0502, Site No. V00360-2*
- August 10, 2007 *Health and Safety Plan Citizens Gas Works Former Manufactured Gas Plant (MGP) Site Constructability Investigation* Submitted to: KeySpan Corporation, Submitted by: GEI Consultants, Inc.
- September 12, 2007 *Final Remedial Design Work Plan Carroll Gardens/Public Place Brooklyn, New York, VCA Index No. A2-0460-0502, Site No. V00360-2*, Submitted to: KeySpan Corporation, Submitted by: GEI Consultants, Inc.
- April 11, 2008 *Final Brownfield Cleanup Program (BCP) Application submitted to NYSDEC from National Grid, City of New York, Vichar, Inc./Harvic International, Ltd. For Carroll Gardens Public Place MGP Site.*
- December 17, 2008 Letter to Amen M. Omorogbe (NYSDEC) from Tracey L. Bell (National Grid) Re: *Final Parcel III Pre-Design Investigation Work Plan, Carroll Gardens/Public Place Former Citizens Gas Works Manufactured Gas Plant Site, Brooklyn, New York, Site No.: C224012*
- December 2008 *Field Sampling Plan Carroll Gardens/Public Place Former Citizens Gas Works Manufactured Gas Plant Site, Parcel III* Submitted to: National Grid, Submitted by: GEI Consultants, Inc.
- December 2008 *Quality Assurance Project Plan Sampling Plan Carroll Gardens/Public Place Former Citizens Gas Works Manufactured Gas Plant Site, Parcel III* Submitted to: National Grid, Submitted by: GEI Consultants, Inc.
- April 13, 2009 Letter to Amen M. Omorogbe (NYSDEC) from Tracey L. Bell (National Grid) Re: *DNAPL Recovery Wells Pilot Test Work Plan Carroll Gardens/Public Place Former Citizens Gas Works Manufactured Gas Plant Site, Brooklyn, New York, Site No.: C224012*
- May 11, 2009 Letter to Amen M. Omorogbe (NYSDEC) from Tracey L. Bell (National Grid) Re: *Bulkhead Alignment Investigation Work Plan, Former Citizens Gas Works Manufactured Gas Plant Site Carroll Gardens/Public Place, Brooklyn, New York, Site No.: C224012*
- September 23, 2009 Letter to Amen M. Omorogbe (NYSDEC) from Tracey L. Bell (National Grid) Re: *Remedial Design Work Plan Initial Components Approach, Former Citizens Gas Works Manufactured Gas Plant Site, Carroll Gardens/Public Place, Brooklyn, New York, Site No.: C224012*

- October 1, 2009 Letter to Amen M. Omorogbe (NYSDEC) from Tracey L. Bell (National Grid) Re: *Supplemental Remedial Investigation (SRI) Work Plan, Former Citizens Gas Works Manufactured Gas Plant Site, 98 4th Street Property, Brooklyn, New York, Site No.: C224012*
- December 23, 2009 Letter to Amen M. Omorogbe (NYSDEC) from Tracey L. Bell (National Grid) Re: *Supplemental Remedial Investigation (SRI) Interim Data Summary, Former Citizens Gas Works Manufactured Gas Plant Site, Carroll Gardens/Public Place, Brooklyn, New York, Site No.: C224012*
- December 23, 2009 Letter to Amen M. Omorogbe (NYSDEC) from Tracey L. Bell (National Grid) Re: *Supplemental Remedial Investigation (SRI) Work Plan Addendum, Former Citizens Gas Works Manufactured Gas Plant Site, Carroll Gardens/Public Place, Brooklyn, New York, Site No.: C224012*
- December 23, 2009 Letter to Amen M. Omorogbe (NYSDEC) from Tracey L. Bell (National Grid) Re: *Supplemental Remedial Investigation (SRI) Work Plan Addendum, Gowanus Canal Off-Site Area of Investigation Former Citizens Gas Works Manufactured Gas Plant Site, Carroll Gardens/Public Place, Brooklyn, New York, Site No.: C224012*

Fulton Municipal Works Reports

- March 2008 *Final Remedial Investigation Work Plan Fulton Municipal Works, Former Manufactured Gas Plant Site, Brooklyn, New York ACO Index No. A2-0552-0606, Site # 224051.* Submitted to KeySpan Corporation. Submitted by GEI Consultants, Inc.
- March 2008 *Citizen Participation Plan for the Former Fulton Municipal Manufactured Gas Plant at Nevins, Sackett, and Degraw Streets, Brooklyn, New York.* Prepared by KeySpan Corporation.
- April 2008 *Fact Sheet Public Meeting Scheduled to Announce Remedial Investigation At Former Manufactured Gas Plant Site By KeySpan/ National Grid on May 7, 2008, KeySpan/ National Grid Former Fulton Municipal MGP, Brooklyn, Site # 224051* New York State Department of Environmental Conservation.
- August 14 2008, Transmittal to Mr. Henry T. Willems (NYSDEC) From GEI Consultants, Inc, *Summary of Physical Observations Within Playground Area at Thomas Greene Park. Remedial Investigation Fulton Municipal Works Former MGP.*
- October 27, 2008 Letter to Mr. Herb Chaves, Esq. From GEI Consultants, Inc. Re: *Former Conklin Brass Property Interim Data Results, 270 Nevins Street, Fulton Municipal Works Manufactured Gas Plant (MGP) Site, Brooklyn, New York 11217 Index No. A2-0552-0606, Site # 224051*
- October 28, 2008 Letter to Mr. Henry T. Willems (NYSDEC) From GEI Consultants, Inc. Re: *Thomas Green Playground Interim Data Results, Fulton Municipal Works Manufactured Gas Plant (MGP) Site, Brooklyn, New York 11217 Index No. A2-0552-0606, Site # 224051*
- November 7, 2008 Letter to Mr. Herb Chaves, Esq. From GEI Consultants, Inc. Re: *Subsurface Soil Interim Data Results Conklin Brass Property Interim Data Results, 270 Nevins Street, Fulton Municipal Works Manufactured Gas Plant (MGP) Site, Brooklyn, New York 11217 Index No. A2-0552-0606, Site # 224051*

- April 24, 2009 Letter to Mr. Herb Chaves, Esq. From GEI Consultants, Inc *Re: Former Conklin Brass Property Interim Data Results, 270 Nevins Street, Fulton Municipal Works Manufactured Gas Plant (MGP) Site, Brooklyn, New York 11217 Index No. A2-0552-0606, Site # 224051*
- July 20, 2009 Letter to Mr. Henry Willems (NYSDEC) from Mr. Donald Campbell (National Grid) *Re: Remedial Investigation Work Plan Addendum Fulton Municipal Works Former Manufactured Gas Plant (MGP) Site, Brooklyn, New York, Site No. 224051, Index No. A2-0522-0606*
- October 12, 2009 E-Mail to Mr. Henry Willems (NYSDEC) from GEI Consultants, Inc. *Re: Fulton Municipal Works Former MGP Site RI Boring Logs and Monitoring Well Logs*
- November 2009 Transmittal to Mr. Henry Willems (NYSDEC) from GEI Consultants, Inc. *Fulton Boring Logs [SB-27, SB-29, SB-35]*
- November 30, 2009 Draft Letter to Mr. Henry T. Willems (NYSDEC) *Letter to Mr. Herb Chaves, Esq. From GEI Consultants, Inc. Re: Interim Data Results Former Conklin Brass Property, 270 Nevins Street, Fulton Municipal Works Manufactured Gas Plant (MGP) Site, Brooklyn, New York 11217 Index No. A2-0552-0606, Site # 224051*
- January 13 2009 Transmittal to Mr. Henry Willems (NYSDEC) from GEI Consultants, Inc. *Fulton Boring/ Monitoring Well Logs [FW-MW-09]*

Metropolitan Reports

- May, 2009 *Remedial Investigation Work Plan, Metropolitan Former MGP Site*, Submitted to National Grid. Submitted by AECOM, Inc.