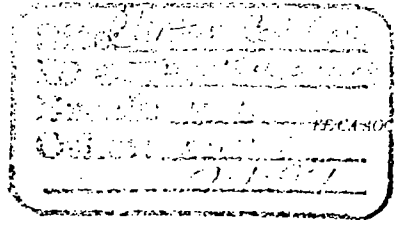
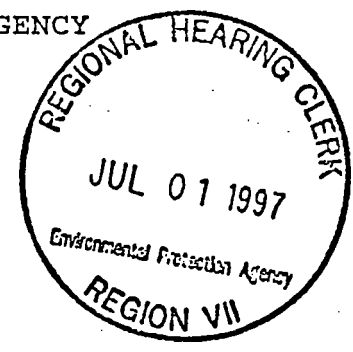


113743



EPCASOC EPA-Interstate

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VII
726 MINNESOTA AVENUE
KANSAS CITY, KANSAS 66101



In the Matter of:)
)
CLINTON COAL GAS SITE)
Clinton, Iowa)
)
)
Interstate Power Company,)
)
Respondent.)

Proceedings under Sections)
104, 107 and 122 of the)
Comprehensive)
Environmental Response,)
Compensation, and Liability)
Act of 1980 (42 U.S.C. §§ 9604,)
9607 and 9622).)

Docket No. VII-97-F-0020

ADMINISTRATIVE ORDER
ON CONSENT

ADMINISTRATIVE ORDER ON CONSENT
FOR ENGINEERING EVALUATION/COST ANALYSIS

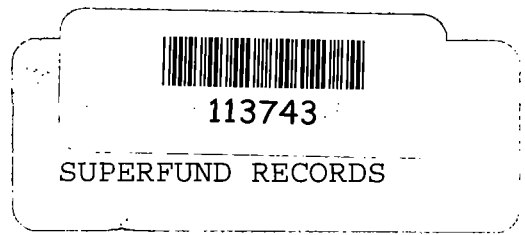


Table of Contents

I.	INTRODUCTION	1
II.	JURISDICTION	2
III.	DEFINITIONS	3
IV.	STATEMENT OF PURPOSE	7
V.	FINDINGS OF FACT	8
VI.	CONCLUSIONS OF LAW AND DETERMINATIONS	15
VII.	PARTIES BOUND	18
VIII.	WORK TO BE PERFORMED	20
IX.	ADMINISTRATIVE RECORD AND PUBLIC COMMENT	30
X.	ACCESS TO PROPERTY AND INFORMATION	31
XI.	SUBMISSIONS REQUIRING EPA APPROVAL	33
XII.	RECORD RETENTION, DOCUMENTATION, AND AVAILABILITY OF INFORMATION	36
XIII.	OFF-SITE SHIPMENTS	37
XIV.	COMPLIANCE WITH OTHER LAWS	38
XV.	EMERGENCY RESPONSE AND NOTIFICATION OF RELEASES	38
XVI.	AUTHORITY OF EPA'S PROJECT COORDINATOR	39
XVII.	ADDITIONAL WORK	40
XVIII.	REIMBURSEMENT OF COSTS	42
XIX.	DISPUTE RESOLUTION	48
XX.	FORCE MAJEURE	49

XXI.	STIPULATED PENALTIES	52
XXII.	RESERVATION OF RIGHTS	57
XXIII.	OTHER CLAIMS	58
XXIV.	CONTRIBUTION	60
XXV.	INDEMNIFICATION	61
XXVI.	MODIFICATIONS	62
XXVII.	NOTICE OF COMPLETION	62
XXVIII.	SEVERABILITY	63
XXIX.	SIGNATURE BY PARTIES	64
XXX.	EFFECTIVE DATE	64

I. INTRODUCTION

1. This Administrative Order on Consent for Engineering Evaluation/Cost Analysis ("Consent Order" or "Order") is entered into by the United States Environmental Protection Agency ("EPA") and Interstate Power Company ("Respondent"). This Consent Order requires the performance of an engineering evaluation/cost analysis ("EE/CA") pursuant to 40 C.F.R. § 300.415 of the National Oil and Hazardous Substances Pollution Contingency Plan ("NCP"), at the Clinton Coal Gas Site (the "Site"), which is located in the City of Clinton, Clinton County, Iowa.

2. EPA will, after providing opportunity for public comment on the final EE/CA Report and the EPA EE/CA Approval Memo, in accordance with the NCP at 40 C.F.R. §§ 300.415 and 300.820, select the removal alternative that EPA determines is appropriate for the Site. The implementation of that removal alternative to be selected after the completion of the EE/CA is not part of the present Administrative Order on Consent. EPA and the Respondent anticipate that a subsequent Administrative Order on Consent will be negotiated to provide for the performance of the coal-tar response action alternative selected by EPA.

3. The Site includes the former manufactured gas plant and the former Allied Structural Steel Co. plant and other nearby property as indicated on the attached map. This Consent Order is concerned primarily with coal tar contamination at the site. A previous Administrative Order on Consent, Docket No. VII-96-F-0015, was entered into by EPA and Riverview Partners that addressed lead contamination at the former Allied Structural Steel portion of the site.

4. This Consent Order also calls for reimbursement of all past costs related to the site and all oversight costs incurred by EPA in connection with this Consent Order that have not been recovered pursuant to the Administrative Order on Consent, Docket No. VII-96-F-0015.

II. JURISDICTION

5. This Consent Order is issued pursuant to the authority vested in the President of the United States by Sections 104, 107 and 122 of the Comprehensive Environmental Response, Compensation and Liability Act, as amended, 42 U.S.C. §§ 9604, 9607, and 9622 ("CERCLA"). This authority was delegated to the Administrator of EPA on January 23, 1987, by Executive Order 12580, 52 Fed. Reg.

2926 (1987), and was further delegated to the Regional Administrators on September 13, 1987, by EPA Delegation No. 14-14-C. This authority was subsequently delegated to the Director, Superfund Division, by EPA Region VII Delegation No. R7-14-14C, dated January 1, 1995.

6. Respondent's participation in this Consent Order shall not constitute or be construed as an admission of liability or of the findings or determinations contained in this Consent Order. Respondent agrees to comply with and be bound by the terms of this Consent Order. Respondent consents to and agrees not to contest EPA's authority or jurisdiction to issue or to enforce this Consent Order. Respondent further agrees not to contest the basis or validity of this Consent Order or any of its terms.

7. EPA has notified the State of Iowa of the issuance of this Consent Order.

III. DEFINITIONS

8. Unless otherwise expressly provided herein, terms used in this Consent Order which are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in the statute or its implementing regulations.

Whenever terms listed below are used in this Consent Order or in the documents attached to this Consent Order or incorporated by reference into this Consent Order, the following definitions shall apply:

a. "Coal tar" shall mean, for the purposes of this Order, coal tar, water gas tar or light oil, drip oils or tar-oil-water emulsions resulting from the carbureted water-gas process or the coal carbonization process.

b. "Consent Order" shall mean this Administrative Order on Consent for Engineering Evaluation/Cost Analysis and all appendices attached hereto. In the event of conflict between this Consent Order and any provision of any other agreement, order or writing, the terms and conditions of this Consent Order shall control.

c. "Day" shall mean a calendar day unless expressly stated to be a working day. "Working day" shall mean any day other than a Saturday, Sunday, or Federal holiday. In computing any period of time under this Consent Order, where the last day would fall on a Saturday, Sunday, or Federal holiday, the period shall run until the end of the next Working day.

d. "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 et seq., as amended.

e. "Oversight Costs" shall mean all direct and indirect costs incurred by EPA in connection with this Consent Order, including, but not limited to, time and travel costs of EPA personnel and associated indirect costs; contractor costs; interagency agreement costs; compliance monitoring including the collection and analysis of split samples, Site visits, discussions regarding disputes that may arise as a result of this Consent Order, review and approval or disapproval of reports and costs of performing any of Respondent's tasks; costs incurred by EPA in the process of assisting Respondent to gain access; other costs incurred in implementing, overseeing, or enforcing this Consent Order; and enforcement costs.

f. "Paragraph" shall mean a portion of this Consent Order identified by an Arabic numeral, a letter of the alphabet or a lower case Roman numeral.

g. "Parties" shall mean the United States and the Respondent.

h. "Past response costs" shall mean all costs incurred by the United States in relation to the Site prior to the date of the first payment of future costs and other costs deemed "past costs" as provided in Section XVIII (Reimbursement of Costs) of this Consent Order.

i. "RCRA" shall mean the Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act and the Hazardous and Solid Waste Amendments, 42 U.S.C. § 6901 et seq.

j. "Section" shall mean a portion of this Consent Order identified by a Roman numeral and includes one or more paragraphs, unless used to refer to a statutory or regulatory section.

k. "Site" shall mean the Clinton Coal Gas Site (the "Site"), which is approximately bounded by Fourth Avenue North, North Second Street, First Avenue, the railroad tracks, Second Avenue South, and Riverview Park located in the City of Clinton, Clinton County, Iowa. The site includes the former manufactured gas plant and the former Allied Structural Steel Co. plant and other nearby property as indicated generally on the attached map.

l. "Statement of Work" or "SOW" shall mean the statement describing the Work to be implemented at the Site, as

set forth in Attachment I to this Consent Order, and any and all substitutions, modifications or revisions made to such document, in accordance with this Consent Order.

m. "United States" shall mean the United States of America, and any and all agencies and instrumentalities thereof.

n. "Work" shall mean all activities Respondent is required to perform under this Consent Order, including any activities required to be undertaken pursuant to the terms and conditions of this Consent Order and the SOW set forth in Attachment I.

IV. STATEMENT OF PURPOSE

9. This Consent Order requires the Respondent to perform an Engineering Evaluation/Cost Analysis ("EE/CA"), consistent with the NCP, 40 C.F.R. Part 300, and the "Guidance on Conducting Non-Time-Critical Removal Actions under CERCLA," EPA/540-R-93-057, August, 1993. The purpose of the EE/CA is to determine and evaluate alternatives for removal action to prevent, mitigate, or otherwise respond to or remedy the release or threatened release of hazardous substances, pollutants or contaminants at the Site. The scope and substance of the EE/CA to be performed by

Respondent are set forth in Section VIII. (Work to be Performed) of this Consent Order and in the Statement of Work ("SOW"), incorporated herein as Attachment I to this Consent Order.

V. FINDINGS OF FACT

10. The Clinton Coal Gas site is located in downtown Clinton, Clinton County, Iowa, and is surrounded by Fourth Avenue North, North Second Street, First Avenue, the railroad tracks, Second Avenue South and the Riverview Park road. The site is located in an area legally described as the SW $\frac{1}{4}$, SE $\frac{1}{4}$, Section 6, Township 81 North, Range 7 East, Clinton, Iowa. The site is composed of a number of parcels of real property. On the part of the site located east of the railroad tracks are located a 160,000 square foot vacant manufacturing building, a smaller office building and storage yards. This part of the Site is commonly referred to as the former Allied Structural Steel Company plant and is depicted on the attached map as Parcels A, B and 1E. This is the area that was the focus of the lead contamination removal action addressed pursuant to the Administrative Order on Consent, Docket No. VII-96-F-0015. On the part of the site located west of the railroad tracks are

located the offices and a storage yard of Interstate Power Company.

11. The site is located between a commercial area of the City of Clinton and the Riverfront Park. The Allied Structural Steel part of the site is fenced but breaches in the fence and bicycle tracks inside the building indicate that access has not consistently been prevented. The Allied Structural Steel part of the site is currently zoned "commercial". The closest residence is located less than 100 feet from the site. Eight thousand people live within one mile of the site and a school is within 900 feet of the site.

12. The site is located approximately 500 feet from the Mississippi River. The shallow ground water in the vicinity of the site is hydraulically connected to the Mississippi River and generally flows in the same direction as the river.

13. Riverview Partners is an Iowa general partnership which currently owns the former Allied Structural Steel Company plant part of the site. Riverview Partners is not a party to the present Consent Order. It was, however, the sole Respondent to the previous Administrative Order on Consent, Docket No. VII-96-F-0015. Riverview Partners acquired the property pursuant to a

contract for deed in December 1984, and obtained the deed in March 1993. Previously bridge and structural steel fabrication operations were conducted on the southern portion of the property for several decades and on the northern portion from about 1956 to 1984. Manufactured gas plant operations were conducted on the northern portion of the property until about 1952. The City of Clinton also operated a municipal incinerator at the far North end of the property for a period of time starting in about 1931. This was also later demolished.

14. Respondent Interstate Power Company (IPW) is a corporation organized under the laws of the State of Delaware and authorized to do business in the State of Iowa. IPW is the current owner of the portion of the site located west of the railroad tracks and a former owner of the northern part of the portion of the site located east of the railroad tracks. A manufactured gas plant had been operated on these portions of the site beginning in approximately 1897. IPW operated the manufactured gas plant on these portions of the site from approximately 1925 to 1952 and during this time wastes resulting from the operations of the manufactured gas plant, including coal tar, were disposed of at the facility. IPW decommissioned the

manufactured gas plant and demolished the associated facilities after operations ceased. IPW sold the part of the site located east of the railroad tracks to Clinton Bridge Company and retained ownership of the portion of the site located west of the railroad tracks.

15. The Iowa Department of Natural Resources collected samples at the site in May, 1993. Sediment samples were collected from inside a storm sewer manhole near the former Allied Steel building. Several polynuclear aromatic hydrocarbon (PAH) compounds were identified at elevated levels. One surface soil sample was also collected from the southwest yard, outside the Allied Steel building. Analysis indicated the presence of lead at a concentration of 40 milligrams per liter (mg/l) through the toxicity characteristic leaching procedure. The regulatory limit for a characteristic hazardous waste for lead is 5 mg/l, therefore the sample is a Resource Conservation and Recovery Act hazardous waste.

16. The EPA conducted a Site Screening Investigation during April, 1994. Contaminants identified in subsurface soil samples and ground water samples and the highest levels at which they were found are as follows:

<u>Contaminant</u>	Subsurface Soil	Ground Water
	<u>Concentration in $\mu\text{g}/\text{kg}$</u>	<u>Concentration in $\mu\text{g}/\text{l}$</u>
Acenaphthene	10,800	
Acenaphthylene	29,200	
Anthracene	14,400	
Benz[a]anthracene	18,700	580
Benzo[a]pyrene	12,700	620
Benzo[b]fluoranthene	12,700	
Benzo[k]fluoranthene		260
Benzo[ghi]perylene	13,700	
Chrysene	17,000	480
Fluoranthene	32,800	
Fluorene	21,000	
Indeno[1,2,3-cd]pyrene	3,000	
Naphthalene	94,300	
Phenanthrene	73,900	
Pyrene	30,700	
Benzene	53,000	45,000
Toluene	230,000	20,000
Ethyl benzene	310,000	1,700
Xylene	560,000	

Concentration in mg/kg

Lead	10,700	40 (Total)
------	--------	------------

Nickel		163 (Total)
--------	--	-------------

Concentration in mg/l

Cyanide		4.20 (Total)
---------	--	--------------

Elevated concentrations of PAH compounds were identified in a sewer adjacent to the site during EPA's Site Screening Investigation.

17. The EPA conducted a Removal Site Assessment, with surface soil and dust sampling occurring in April and December, 1994. Areas inside and outside the former Allied Structural Steel building were sampled. Dust inside the building and areas of surface soil outside the building were found to have high concentrations of lead. Lead in dust samples taken from inside the building were as high as 39,000 mg/kg. Lead in surface soil samples taken outside the building were as high as 90,000 mg/kg. The potential for direct contact with lead at the surface and for migration of lead contaminated soil via human traffic and surface water runoff was addressed in the previous Administrative Order on Consent, Docket No. VII-96-F-0015.

18. The potential exists for migration of the PAHs and other hazardous substances into the ground water and into the Mississippi River through sewers and abandoned wells. The nearest downgradient drinking water well is located approximately 2200 feet from the site.

19. Acenaphthene, acenaphthylene, anthracene, benzanthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[ghi]perylene, benzo[k]fluoranthene, chrysene, dibenzo[a,h]anthracene, fluoranthene, fluorene, ideno[1,2,3-cd]pyrene, naphthalene, phenanthrene, and pyrene are all polynuclear aromatic hydrocarbon (PAH) compounds. All of these PAHs are hazardous substances. PAHs may be toxic to humans and animals via oral, dermal, or respiratory routes of exposure. As environmental pollutants, PAHs are slightly to moderately soluble in water and are soluble in other organic compounds such as benzene. Some PAHs are animal carcinogens. Some PAHs are probable human carcinogens.

20. Cyanide is a non-metal inorganic substance that is found in combination with other chemicals in the environment. Cyanide combines with organic compounds to form compounds and with metals to form compounds. Many cyanide compounds may be

toxic to humans and animals via oral or respiratory routes of exposure. Some cyanides are also toxic via dermal exposure.

Many cyanides are soluble in water.

21. Benzene, toluene, ethyl benzene, and xylene are light aromatic compounds that have been detected at the site and are hazardous substances. Benzene is a human carcinogen. These compounds may be toxic to humans and animals via oral, respiratory, or dermal routes of exposure. They are slightly soluble in water and volatile in the environment.

22. Lead is a metal which occurs naturally in the environment. Lead is a hazardous substance. The primary route of absorption of lead is gastrointestinal, particularly in children. Adverse neurological effects in children are a primary concern with respect to exposure to lead. Lead encephalopathy in adults is considered an acute toxic response to high levels of lead exposure. Lead has been classified as a probable human carcinogen.

VI. CONCLUSIONS OF LAW AND DETERMINATIONS

23. EPA hereby makes the following conclusions of law and determinations:

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

b. Each of the following substances found at the Site and identified in the Findings of Fact above, including lead, organocyanide and metal-cyanide compounds, polynuclear aromatic hydrocarbon (PAH) compounds including acenaphthene, acenaphthylene, anthracene, benz[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[ghi]perylene, benzo[k]fluoranthene, chrysene, dibenzo[a,h]anthracene, fluoranthene, fluorene, ideno[1,2,3-cd]pyrene, naphthalene, phenanthrene, and pyrene, and light aromatic compounds including benzene, toluene, ethyl benzene, and xylene is a "hazardous substance" as defined in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

c. The conditions at the Site constitute an actual or threatened release of hazardous substances into the environment at the Site, as defined in Sections 101(8) and (22) of CERCLA, 42 U.S.C. §§ 9601(8) and (22).

d. Respondent is a "person" as defined by and within the meaning of Sections 101(21) and 107(a)(3) of CERCLA, 42 U.S.C. §§ 9601(21) and 9607(a)(3).

e. Respondent is liable under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), as a person who is a current owner or operator of a portion of the Site, a person who at the time of disposal of any hazardous substances owned or operated any facility at which such hazardous substances were disposed of, and/or a person who generated hazardous substances disposed of at the site.

f. The conditions present at the Site constitute a threat to the public health, welfare, or the environment based upon the factors set forth in Section 300.415(b)(2) of the NCP, 40 C.F.R. Part 300. These factors include the following:

- (1) actual or potential exposure to hazardous substances by nearby human populations, animals or the food chain from hazardous substances, pollutants or contaminants;
- (2) actual or potential contamination of drinking water supplies;
- (3) high levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate;

(4) weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released.

g. EPA is authorized to act pursuant to Section 104 of CERCLA, 42 U.S.C. § 9604, to investigate the existence and extent of the release or threat of release at the Site, the source and nature of the hazardous substances, pollutants or contaminants involved, and the extent of danger to the public health and welfare and the environment; and

h. The work ordered and agreed to by Respondent under the terms of this consent order is in the public interest and if carried out in conformance with the requirements of this order will be consistent with the National Contingency Plan, 40 C.F.R. Part 300, et seq.

VII. PARTIES BOUND

24. The terms of this Consent Order shall apply to and be binding upon the Respondent, its successors and assigns, and upon all agents, persons, contractors, and consultants acting under or for Respondent in carrying out the actions required by this Consent Order. The signatories to this Consent Order certify

that they are authorized to execute and legally bind the parties they represent to this Consent Order.

25. No change in the ownership, corporate or partnership status of the Respondent or of the site shall alter the responsibilities of the Respondent under this Consent Order. Respondent shall provide a copy of this Consent Order to any successors in interest before ownership rights, partnership shares, or stock or assets in a corporate acquisition or merger are transferred and shall provide EPA written notification of such transfer at least (30) days prior to such transfer. Respondent shall provide a copy of this Consent Order to each of its contractors, principal subcontractors, laboratories, consultants, and representatives retained or employed to conduct any Work performed under this Consent Order prior to their initiation of work. Respondent shall condition any contracts for Work to be performed under this Consent Order upon satisfactory compliance with this Consent Order. Respondent shall be responsible for ensuring that its contractors, subcontractors, laboratories, consultants, and employees comply with all provisions of this Consent Order.

VIII. WORK TO BE PERFORMED

26. Based on the foregoing Findings of Fact, and Conclusions of Law and Determinations it is hereby ordered and agreed that Respondent shall perform the following actions:

A. Engineering Evaluation and Cost Analysis ("EE/CA")

27. Respondent shall conduct an investigation and prepare and submit to EPA for EPA review and approval an Engineering Evaluation/Cost Analysis Report ("EE/CA Report") in accordance with EPA's "Guidance on Conducting Non-Time-Critical Removal Actions under CERCLA", OSWER Directive No. 9360.0-32, August 1993; and in accordance with the attached Statement of Work ("SOW"), Attachment I. The goals of the EE/CA are (i) to satisfy all environmental review requirements (e.g. site characterization and risk assessment) for selection of a removal action at the Site; (ii) to satisfy administrative record requirements necessary to document the removal action selection for the site; and (iii) to provide a framework for evaluating and selecting alternative technologies for the clean-up of the Site.

28. The parties acknowledge that the Site consists of separate parcels of property, presently owned by Respondent, Riverview Partners and the City of Clinton, plus immediately

adjacent areas, and that this Consent Order and the attached SOW impose only investigative responsibilities on Respondent. The responsibilities imposed under this Consent Order, and under the attached SOW, shall extend to the investigation of all contaminants, contamination, hazardous substances, and wastes located at or upon the Site, except that Respondent shall not be required to trace or investigate the off-Site origin or source of any contaminants, contamination, hazardous substances, and waste found at the Site other than those attributed to the operation of a manufactured gas plant ("m-gp") at the Site.

29. Nothing contained in this Consent Order or in the attached SOW shall constitute, or be interpreted as, a requirement that Respondent shall undertake the treatment, remediation, or removal of any non-m-gp contaminants, contamination, hazardous substances and waste found at the Site, nor shall the exercise or performance by Respondent of any responsibilities imposed by this Consent Order, or by the attached SOW, constitute, or be interpreted as, an acceptance of or admission by Respondent of any responsibility to treat, remediate, or remove any non-m-gp contaminants, contamination, hazardous substances, and waste found at the Site. By entering

into this Consent Order, and the attached SOW, Respondent has not waived any defenses it has or may claim to have, in any action brought, or with respect to any claims made, against Respondent concerning the treatment, remediation, or removal of any non-mgp contaminants, contamination, hazardous substances, or waste found at the Site.

30. The EE/CA shall include, but is not limited to, the following:

a. Additional site characterization activity which, in conjunction with the site investigation work already undertaken at this Site, is sufficient to determine appropriate removal alternatives, as set forth in the SOW and the OSWER Directive No. 9360.0-32 described above. The additional site characterization work is more specifically described in Task III of the SOW. All sampling and analysis activities to be conducted for this EE/CA shall be conducted in accordance with an EPA-approved Quality Assurance Project Plan ("QAPP"), to be submitted to EPA as set forth in the SOW, and in accordance with the requirements of Paragraphs 44 through 47 (VIII.e. Quality Assurance and Sampling). Respondent shall implement the Health and Safety Plan, as described in Paragraph 42 below, prior to

conducting any site characterization activities under this Consent Order;

b. A Baseline Risk Assessment to identify and characterize the actual and potential risks to human health and the environment due to contamination at the site. The Baseline Risk Assessment shall be prepared in accordance with EPA's Risk Assessment Guidance for Superfund consisting of the following two volumes: the Human Health Evaluation Manual, dated October 1989 (OSWER Directive number 9285.7-01a) and the Environmental Evaluation Manual, dated March 1989 (OSWER Directive number 9285.7-02);

c. An identification of removal action objectives, as more specifically set forth in OSWER Directive 9360.0-32 and the SOW;

d. An identification and comparative analysis of removal action alternatives, analyzing effectiveness, implementability and cost, as set forth in OSWER Directive 9360.0-32 and the SOW.

B. Designation of Contractor and Project Coordinator

31. Respondent shall retain a contractor to perform the EE/CA activities described herein. Within ten (10) days of the

effective date of this Consent Order, Respondent shall notify EPA of the name and qualifications of such contractor proposed to be used in carrying out Work under this Consent Order.

Respondent shall also notify EPA of the name and qualifications of any other contractors or subcontractors retained to perform Work under this Consent Order at least ten (10) days prior to commencement of such Work.

32. Within ten (10) days after the effective date of this Consent Order, Respondent shall designate a Project Coordinator and shall submit the designated coordinator's name, address, telephone number, and qualifications to EPA. Respondent's Project Coordinator shall be responsible for administration of all the actions required of Respondent by the Consent Order. Respondent's Project Coordinator shall be present at the Site or readily available by telephone during Site Work.

33. EPA retains the right to disapprove of any, or all, of the contractors or subcontractors selected by Respondent, including the Project Coordinator, pursuant to Section XI (Submissions Requiring EPA Approval). If EPA disapproves of a selected contractor, subcontractor, or Project Coordinator, Respondent shall retain a different person, and shall notify EPA

of that person's name, address, telephone number, and qualifications within fifteen (15) days following EPA's disapproval. Receipt by Respondent's Project Coordinator of any notice or communication from EPA relating to this Consent Order shall constitute receipt of the same by Respondent.

34. EPA has designated Diana Engeman as its Project Coordinator. Respondent shall direct all submissions required by this Consent Order to Ms. Engeman at the United States Environmental Protection Agency, Region VII, 726 Minnesota Avenue, Kansas City, Kansas 66101, (913) 551-7746.

35. EPA and Respondent shall have the right to change their designated Project Coordinators and contractors. Verbal notice of such change shall be provided to the other parties within twenty-four (24) hours of such change and written notice shall follow within five (5) days of such change. Such change by Respondent is subject to EPA approval as set forth above.

C. Work Plan and Implementation

36. Within sixty (60) days of the effective date of this Order, Respondent shall submit to EPA for review and approval a Work Plan for performing the Work required herein, in accordance with the attached SOW. The Work Plan shall provide a description

of, and an expeditious, detailed schedule for the implementation of the EE/CA, as described in the SOW.

37. EPA may approve, disapprove, or require revisions to the Work Plan in accordance with Section XI of this Consent Order (Submissions Requiring EPA Approval).

38. Once approved, or approved with modifications, the Work Plan, the schedule contained therein, and any subsequent modifications shall become a part of and shall be fully enforceable under this Consent Order.

39. Respondent shall implement the Work Plan as finally approved in writing by EPA in accordance with the schedule approved by EPA.

40. Respondent shall notify EPA at least ten (10) working days prior to performing any on-site Work pursuant to the Work Plan approved by EPA.

41. Respondent shall not commence or undertake any Work at the Site without prior EPA approval of the Work Plan.

D. Health and Safety Plan

42. Within sixty (60) days of the effective date of this Order, Respondent shall submit to EPA, for review and comment, a plan that ensures the protection of the public health and safety

during performance of the Work required by this Consent Order. This plan shall comply with the specifications in the attached SOW.

43. Respondent shall implement the plan during the pendency of the Work required by this Consent Order.

E. Quality Assurance and Sampling

44. Within sixty (60) days of the effective date of this Order, Respondent shall submit to EPA a Quality Assurance Project Plan ("QAPP") prepared in accordance with the attached SOW. The QAPP shall be subject to EPA approval in accordance with Section XI (Submissions Requiring EPA Approval). All sampling and analysis activities undertaken as part of this Consent Order shall be conducted in accordance with the EPA approved QAPP. All sampling and analyses performed pursuant to this Consent Order shall conform to EPA direction, approval, and guidance regarding sampling, quality assurance/quality control ("QA/QC"), data validation, and chain of custody procedures in accordance with the appropriate EPA guidances described in the attached SOW.

45. Upon request by EPA, Respondent shall, at its expense, have the laboratory being used by Respondent analyze samples submitted by EPA for quality assurance monitoring.

46. Upon request by EPA, Respondent shall allow EPA or its authorized representatives to take split or duplicate samples of any samples collected by Respondent while performing Work pursuant to this Consent Order. Respondent shall notify EPA not less than fourteen (14) days in advance of any sample collection activity. EPA shall have the right to take any additional samples that it deems necessary.

47. The Respondent shall demonstrate, in advance, to EPA's satisfaction, that each laboratory it uses is qualified to conduct the proposed work. The laboratory shall have and follow a QA program. If a laboratory not in the Contract Laboratory Program ("CLP") is selected, methods consistent with CLP methods that would be used for the purposes proposed and quality assurance and quality control ("QA/QC") procedures approved by EPA shall be used. Respondent shall ensure that any laboratory used by Respondent for analyses, performs according to a method or methods consistent with the EPA approve QA/QC procedures. Respondent shall submit to EPA, within twenty (20) days of receipt by Respondent, all analytical data collected in connection with this Consent Order.

G. Reports

48. Monthly Progress Reports: Respondent shall submit a written progress report to EPA concerning activities undertaken pursuant to this Consent Order every thirty (30) days, commencing thirty-five (35) days after the date of the Work Plan approval, until this Consent Order is terminated or unless otherwise directed by EPA. These reports shall describe all significant developments during the preceding period; the actual Work performed, any problems encountered in completing this Work; the developments anticipated and the work scheduled during the next reporting period, including a schedule of completion for the unfinished Work from the preceding period and Work to be performed, anticipated problems, and planned resolutions of past or anticipated problems.

H. EE/CA Report

49. Within forty-five (45) days after Respondent has received all analytical data generated as a result of site characterization Work required by this Consent Order, the Respondent shall submit for EPA review and comment a draft of the Site Characterization and Baseline Risk Assessment sections of the EE/CA Report.

50. Within forty-five (45) days after receipt of EPA's comments on the draft of the Site Characterization and Baseline Risk Assessment sections of the EE/CA Report, the Respondent shall submit for EPA review and approval an EE/CA Report, prepared in accordance with the requirements of this Consent Order and the SOW. The EE/CA Report shall incorporate the revised Site Characterization and Baseline Risk Assessment sections into the Report addressing the comments received from EPA. The EE/CA Report shall be subject to the review and approval procedures of Section XI (Submissions Requiring Agency Approval) of this Consent Order.

IX. ADMINISTRATIVE RECORD AND PUBLIC COMMENT

51. EPA retains the responsibility for release to the public of the final EE/CA Report. EPA retains responsibility for the preparation of and release to the public of the decision document and administrative record for this Site. EPA will, after providing opportunity for public comment on the final EE/CA Report and the EPA EE/CA Approval Memo, in accordance with the NCP at 40 C.F.R. §§ 300.415 and 300.820, select the removal alternative that EPA determines is appropriate for the Site.

EPA's selection of the removal action shall not be subject to the dispute resolution procedures of this Order.

52. Respondent shall submit to EPA, upon submittal of the draft EE/CA Report, those documents developed during the course of the EE/CA upon which selection of the removal action may be based. These documents may be used by EPA in preparing the Administrative Record. Documents developed during the EE/CA that Respondent shall submit to EPA shall include, but are not limited to, copies of plans, task memoranda, documentation of field modifications, recommendations for further action, quality assurance memoranda and audits, raw data, field notes, laboratory analytical reports and other reports. Respondent shall additionally submit any correspondence between Respondent and state, local, or other federal authorities related to selection of the removal action.

X. ACCESS TO PROPERTY AND INFORMATION

53. Respondent shall obtain access to the Site property and nearby property as is necessary to conduct the activities required by this Consent Order and shall provide such access to EPA. Respondent shall also provide EPA access to all records and

documentation related to the conditions at the Site and the activities conducted pursuant to this Consent Order. Such access to property and information shall be provided to EPA employees, contractors, agents, consultants, designees, representatives, and state of Iowa representatives. These individuals shall be permitted to move freely at the Site and appropriate off-site areas in order to conduct actions which EPA determines to be necessary. The parties recognize that additional response action is anticipated, therefore such access shall continue until such time as EPA notifies the Respondent that all CERCLA response action has been completed at the site.

54. Respondent shall obtain all necessary access agreements within thirty (30) days after the effective date of this Consent Order, or as otherwise specified in writing by EPA's Project Coordinator. Respondent shall immediately notify EPA if, after using its best efforts, it is unable to obtain such agreements. As used in this Section, "best efforts" shall include an initial visit, a follow-up telephone call and a certified letter from Respondent to the present owner of the property, requesting an access agreement to permit Respondent and EPA, including its authorized representatives, access to the property to conduct the

activities required under this Consent Order. "Best efforts" also includes payment by Respondent of reasonable compensation in consideration for receipt of an access agreement. In Respondent's notification to EPA of failure to obtain access, Respondent shall describe and document in writing its efforts to obtain access. EPA may then assist Respondent in gaining access, to the extent necessary to effectuate the response activities described herein, using such means as EPA deems appropriate, including exercising its authority pursuant to Section 104(e) of CERCLA, 42 U.S.C. § 9604(e). All costs and attorney's fees incurred by the United States in obtaining access shall be reimbursed by Respondent pursuant to Section XVIII (Reimbursement of Costs).

55. Notwithstanding any provision of this Consent Order, EPA retains all of its access authorities and rights, including enforcement authorities related thereto, under CERCLA and any other applicable statutes or regulations.

XI. SUBMISSIONS REQUIRING EPA APPROVAL

56. After review of any plan, report or other item which is required to be submitted for approval pursuant to this Consent

Order, EPA shall: (a) approve, in whole or in part, the submission; (b) approve the submission with modifications; © disapprove, in whole or in part, the submission, directing the Respondent to resubmit the document after incorporating EPA's comments; (d) disapprove the submission and assume responsibility for performing all or any part of the response activities; or (e) any combination of the above.

57. In the event of approval or approval with modifications by EPA, pursuant to Paragraph 56, Respondent shall proceed to take any action required by the plan, report, or other item, as approved or modified by EPA.

58. Upon receipt of a notice of disapproval pursuant to Paragraph 56, Respondent shall, within fourteen (14) calendar days or such other time as specified by EPA in such notice, correct the deficiencies and resubmit the plan, report, or other item for approval.

59. Notwithstanding the receipt of a notice of disapproval pursuant to Paragraph 56, Respondent shall proceed, at the direction of EPA, to take any action required by any non-deficient portion of the submission. Implementation of any non-deficient portion of a submission shall not relieve Respondent of

any liability for stipulated penalties under Section XXI (Stipulated Penalties).

60. In the event that a plan, report or other item, or portion thereof, which is resubmitted to EPA is disapproved or modified by EPA, Respondent shall be deemed to have failed to submit such plan, report, or other item in a timely and adequate manner, unless Respondent invokes the procedures of Section XIX (Dispute Resolution), and EPA's action is overturned pursuant to the Section.

61. The provisions of Section XIX (Dispute Resolution) and Section XXI (Stipulated Penalties) shall govern the implementation of the Work, and accrual and payment of any stipulated penalties during dispute resolution. If EPA's disapproval is upheld, stipulated penalties shall accrue for such violation from the date on which the initial submission was required, as provided in Section XXI (Stipulated Penalties).

62. All plans, reports and other items required to be submitted to EPA under this Consent Order shall, upon approval by EPA, be enforceable under this Consent Order. In the event EPA approves a portion of a plan, report or other item required to be

submitted to EPA under this Consent Order, the approved portion shall be enforceable under this Consent Order.

XII. RECORD RETENTION, DOCUMENTATION,
AND AVAILABILITY OF INFORMATION

63. Respondent shall preserve all documents and information relating to Work performed under this Consent Order, or relating to the hazardous substances found on or released from the Site, for ten (10) years following completion of the Work required by this Consent Order. If, during such ten year period, EPA shall request, in writing, a review of, or copies of, any such documentation or information, Respondent shall provide the original or copies of such documents or information to EPA within fifteen (15) working days. At the end of this ten year period and thirty (30) days before any document or information is destroyed, Respondent shall notify EPA that such documents and information are available to EPA for inspection, and upon request, shall provide the original or true and accurate copies of such documents and information to EPA.

64. Respondent may assert a business confidentiality claim pursuant to 40 C.F.R. § 2.203(b) with respect to part or all of any information they submit to EPA pursuant to this Consent

Order, provided such claim is allowed by Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7). Analytical and other data specified in Section 104(e)(7)(F) of CERCLA shall not be claimed as confidential by the Respondent. EPA shall disclose information covered by a business confidentiality claim only to the extent permitted by, and by means of the procedures set forth in, 40 C.F.R. Part 2, Subpart B. If no such claim accompanies the information when it is received by EPA, EPA may make it available to the public without further notice to Respondent. EPA may, at any time, challenge claims of privilege through negotiations or otherwise as provided by law or the Federal Rules of Civil Procedure.

XIII. OFF-SITE SHIPMENTS

65. Any hazardous substances, pollutants or contaminants removed by Respondent off-site pursuant to this Consent Order for treatment, storage or disposal shall be treated, stored, or disposed of at a facility in compliance, as determined by EPA, with the EPA Off-Site Rule, 40 C.F.R. § 300.440, promulgated pursuant to 42 U.S.C. § 9621(d)(3).

XIV. COMPLIANCE WITH OTHER LAWS

66. All actions required pursuant to this Consent Order shall be performed in accordance with all applicable local, state, and federal laws and regulations except as provided in CERCLA Section 121(e), 42 U.S.C. § 9621, and 40 C.F.R.

§ 300.415(j). In accordance with 40 C.F.R. § 300.415(j), all Work required pursuant to this Consent Order shall, to the extent practicable, as determined by EPA, attain applicable or relevant and appropriate requirements ("ARARs") under federal environmental, state environmental, or facility siting laws. All ARARs shall be identified in the EE/CA.

XV. EMERGENCY RESPONSE AND NOTIFICATION OF RELEASES

67. If any incident, or change in Site conditions, relating to the activities conducted pursuant to this Consent Order causes or threatens to cause an additional release of hazardous substances from the Site or an endangerment to the public health, welfare, or the environment, the Respondent shall immediately take all appropriate action, in accordance with all applicable provisions of this Order, to abate or minimize such release or endangerment caused or threatened by the release. Respondent

shall also immediately notify EPA's Project Coordinator, or, in the event of her unavailability, shall notify the Regional Duty Officer, Superfund Division, EPA Region VII, (913) 236-3778, of the incident or Site conditions. Respondent shall submit a written report to EPA within seven (7) days after each release, setting forth the events that occurred and the measures taken or to be taken to mitigate any release or endangerment caused or threatened by the release and to prevent the recurrence of such a release.

68. In addition, in the event of any release of a hazardous substance above a reportable quantity from the Site, during the activities conducted pursuant to this Consent Order, Respondent shall immediately notify the National Response Center at (800) 424-8802 and EPA's Project Coordinator at (913) 551-7746.

69. These requirements are in addition to the requirements set forth in the Emergency Planning and Community Right-to-know Act ("EPCRA"), 42 U.S.C. § 11001 et seq.

XVI. AUTHORITY OF EPA'S PROJECT COORDINATOR

70. EPA's Project Coordinator shall be responsible for overseeing the implementation of this Consent Order. EPA's

Project Coordinator shall have the authority vested in a Remedial Project Manager ("RPM") and an On-Scene Coordinator ("OSC") by the NCP, including the authority to halt, conduct, or direct any Work required by this Consent Order, or to direct any other response action undertaken by EPA or Respondent at the Site.

Absence of EPA's Project Coordinator from the Site shall not be cause for stoppage of Work unless specifically directed by EPA's Project Coordinator.

XVII. ADDITIONAL WORK

71. EPA may determine that sampling, analysis, or reporting, or other tasks in addition to those specifically set forth in the attached SOW or this Consent Order are necessary to satisfy the purposes of this Consent Order. If EPA so determines, it will advise Respondent in writing of the nature of the additional tasks and the basis for EPA's determination that the additional work is necessary. Respondent may request a meeting with EPA to discuss the additional work within seven (7) days of its receipt of EPA's written determination. Within ten (10) days of receipt of EPA's written determination, Respondent shall advise EPA in writing of either its agreement to perform

the additional tasks requested, or its refusal to undertake the additional tasks and the reasons for such refusal.

72. If Respondent refuses to undertake the additional work, Respondent shall initiate the dispute resolution process set forth in Section XIX of this Order. The time period for initiation of dispute resolution, as set forth in Paragraph 84 hereof, shall run from the date Respondent receives written notice from EPA of its determination that additional work is necessary to satisfy the purpose of this Order.

73. If Respondent agrees to perform the additional tasks requested or if the Dispute Resolution decision is that additional work is required, Respondent shall, within the time specified in the determination from EPA or the Dispute Resolution decision, submit a Supplemental Work Plan which shall be subject to EPA's approval as set forth in Section XI (Submissions Requiring EPA Approval). Upon approval of the Supplemental Work Plan by EPA, Respondent shall implement the Supplemental Work Plan. The Supplemental Work Plan shall address the effect of the additional Work on each part of the approved initial Work Plan.

74. All additional Work performed by Respondent under this Section shall be performed in a manner consistent with this Consent Order.

XVIII. REIMBURSEMENT OF COSTS

75. Respondent shall reimburse the United States, upon written demand, for all response costs incurred by the United States in relation to the presence of contaminants, contamination, hazardous substances, or wastes located at this Site, to the extent that such contaminants, contamination, hazardous substances, or wastes are included in the scope of Respondent's liabilities as such liabilities are described and identified in paragraphs 28 and 29 of this Consent Order, and Respondent shall pay all response and oversight costs incurred by the United States in relation to the Work to be performed pursuant to this Consent Order, to the extent that such Work is consistent with Respondent's liabilities as such liabilities are described and identified in paragraphs 28 and 29 of this Consent Order, and not inconsistent with the NCP, unless otherwise specifically provided in this Section XVIII.

76. EPA shall periodically submit to Respondent a bill for response costs as described in paragraph 75 above, and a reconciled Regional Itemized Cost Summary which shall serve as the basis for payment demands. EPA's reconciled Regional Itemized Cost Summary shall include the following information:

a. EPA's payroll costs, including the names of the individuals charging time to the Site, the pay periods in which each individual charged time to the Site, the number of hours charged by each individual per pay period, and the payroll cost per individual per pay period.

b. EPA's travel costs, including the names of the individuals charging travel costs to this Site and the date and amount of payment of each travel claim charged to the Site;

c. EPA's indirect costs charged for regional staff time, including the individual's name, pay period, the number of hours per pay period, the indirect cost rate, and total indirect cost;

d. Contract costs, including for each such payment the amount paid, the date paid, and invoice number; and

e. The amount and date paid for any other costs. The reconciled Regional Itemized Cost Summary provided by EPA shall serve as the basis for payment demands. Additional cost

documentation will not be provided as a matter of course; but may be provided if a dispute arises about a particular cost item.

77. Although Riverview Partners is not a party to the present order, EPA has identified Riverview Partners as a potentially responsible party for the Allied Steel portion of the Site and has entered into an Administrative Order on Consent with Riverview Partners for response actions addressing lead contaminated soil and structures and for reimbursement of EPA response costs. Because separate Consent Orders have been entered with respect to Respondent and Riverview Partners, the EPA shall submit separate bills, as to all costs billed subsequent to the date of this Consent Order, to Respondent and Riverview Partners in accordance with their respective responsibilities under their individual Consent Orders. With respect to bills for costs incurred by EPA prior to the date of this Consent Order, EPA agrees to make its best effort to break down and apportion such bills as between (1) costs related to lead contamination at the Site, and (2) costs related to mgp contamination at the Site.

78. Respondent has submitted to EPA a signed Agreement between Respondent and Riverview Partners which provides, among

other things, that Respondent and Riverview Partners each shall be responsible for paying bills for EPA's Costs as those bills are submitted to Respondent and Riverview Partners by EPA.

79. Within sixty (60) days of receipt of EPA's response cost bill, Respondent shall pay the full amount identified as the Respondent's share therein. This applies to both past and future response costs. Payment shall be made by check or wire transfer notification demanding payment and shall be payable to the EPA Hazardous Substances Superfund pursuant to Paragraph 81, following.

80. In the event that payments are timely made as provided for in this Section of the Consent Order, Respondent shall not pay interest. If a payment of Response and Oversight Costs or Past Costs is not made within sixty (60) days of the receipt of the response cost bill, then interest on any unpaid amounts shall accrue at the rate established pursuant to Section 107(a) of CERCLA, 42 U.S.C. § 9607(a). The interest shall begin to accrue on the date of the Respondent's receipt of the response cost bill but there shall not be any interest for the period from the time the cost was incurred until the date of the transmittal of the response cost bill or the date a payment was due. Interest shall

accrue at the rate specified through the date of Respondent's payment. Payments of interest made under this Paragraph shall be in addition to remedies or sanctions available to the United States by virtue of Respondent's failure to make timely payments under this Amendment.

81. Payments to the United States for EPA's response costs shall be made by certified or cashier's check or wire transfer payable to EPA Hazardous Substance Superfund and must be designated as "Response Costs" and include the name of the Site ("Clinton Coal Gas Site"), the Site identification number ("07NY Operable Unit 02"), the account number that will be provided to Respondent by EPA, and the Docket Number of this Consent Order.

Checks shall be forwarded to:

Mellon Bank
Attn: Superfund Accounting
EPA Region VII, Comptroller Branch
P.O. Box 360748M
Pittsburgh, Pennsylvania 15251

Wire transfers shall be directed to:

Account 910-9070
ABA# 043000261/Mellon Bank West
EPA Region VII Superfund Accounting
Pittsburgh, Pa.

Copies of the transmittal letter and check or evidence of wire transfer should be sent simultaneously to the EPA Project Coordinator.

82. Respondent may dispute, in accordance with Section XIX (Dispute Resolution), all or part of a Notification of Costs, Demand for Payment or Future Cost estimate submitted under this Consent Order. Any such dispute of a Notification of Costs or Demand for Payment shall be limited to accounting errors or inconsistencies with the NCP.

83. If any dispute over costs is resolved before payment is due, the amount due will be adjusted as necessary. If the dispute is not resolved before payment is due, Respondent, on or before the due date, shall pay (a) the full amount of the uncontested costs into the Hazardous Substances Superfund account and (b) the full amount of all contested costs into an interest bearing escrow bank account established by Respondent.

Respondent shall simultaneously transmit a copy of each check to EPA's Project Coordinator. Respondent shall ensure that the prevailing party or parties in the dispute shall receive the amount upon which they prevailed from the escrowed funds, with interest, within ten (10) days after the dispute is resolved.

XIX. DISPUTE RESOLUTION

84. If Respondent disagrees, in whole or in part, with any EPA disapproval or other decision or directive made by EPA pursuant to this Consent Order, it shall notify EPA in writing of its objections and the bases for such objections, within ten (10) working days of receipt of EPA's disapproval, decision, or directive. Such notice shall set forth the specific points of the dispute, the position Respondent maintains should be adopted as consistent with the requirements of this Consent Order, the factual and legal bases for Respondent's position, and all matters Respondent considers necessary for EPA's determination. EPA and Respondent shall then have ten (10) working days from EPA's receipt of Respondent's objections to attempt to resolve the dispute. If agreement is reached, the resolution shall be reduced to writing, signed by each party, and incorporated into this Consent Order. If the parties are unable to reach agreement within this ten (10) working-day period, the matter shall be referred to the Superfund Division Director. The Superfund Division Director shall then decide the matter and provide a written statement of his or her decision to both parties, which shall be incorporated into this Consent Order.

85. The invocation of the dispute resolution process under this Section, or a claim of force majeure, shall not stay the accrual of stipulated penalties, or extend or postpone any deadline or obligations of Respondent, including the obligation to pay stipulated penalties, under this Consent Order with respect to the disputed issue, unless EPA otherwise agrees in writing. Stipulated penalties shall continue to accrue during the dispute resolution process for all matters unrelated to the contested matters at issue in the dispute resolution process.

86. Notwithstanding any other provision of this Consent Order, no action or decision by EPA, including without limitation, decisions of the Superfund Division Director pursuant to this Consent Order, shall constitute final EPA action giving rise to any rights to judicial review prior to EPA's initiation of judicial action to compel Respondent's compliance with the requirements of this Consent Order.

XX. FORCE MAJEURE

87. Respondent agrees to perform all requirements of this Consent Order within the time limits established by this Consent Order, unless the performance is prevented or delayed by events

which constitute a force majeure. For purposes of this Consent Order, a force majeure is defined as any event arising from causes not foreseeable and beyond control of Respondent or its consultants, contractors, subcontractors or agents, that delays or prevents performance in accordance with the schedule required by this Consent Order, despite Respondent's best efforts to meet the schedule. Force majeure does not include financial inability to complete the Work, unanticipated or increased costs of performance, normal precipitation events, changed economic circumstances or failure to obtain federal, state or local permits.

88. Respondent shall immediately notify EPA orally, and shall also notify EPA in writing within five (5) days after they become aware of events that constitute a force majeure. Such notice shall: Identify the event causing the delay or anticipated delay; provide an estimate of the anticipated length of delay, including necessary demobilization and remobilization; state a description of the cause of the delay; state the measures taken or to be taken to minimize delay; and state the estimated timetable for implementation of these measures. Such notice

shall be reviewed by EPA and EPA will determine whether delay has been or will be caused by a force majeure.

89. Respondent shall exercise best efforts to avoid and minimize any delay caused by a force majeure, as defined herein. Failure to comply with the notice provision of this Section shall constitute a waiver of Respondent's right to assert force majeure.

90. If EPA determines that a delay in performance of a requirement under this Consent Order has been or will be caused by a force majeure, the EPA may extend the time period for performance of that affected portion of Work. Such an extension does not alter the schedule for performance or completion of other tasks required by the attached SOW or Work Plan unless these are also specifically altered by approval of EPA. In the event EPA and Respondent cannot agree that any delay or failure has been or will be caused by a force majeure, or if there is no agreement on the length of the extension, such dispute shall be resolved in accordance with the provisions of Section XIX (Dispute Resolution).

XXI. STIPULATED PENALTIES

91. Unless there has been a written modification of a compliance date by EPA or an excusable delay as determined by EPA under Section XX (Force Majeure), in the event Respondent fails to meet any requirement of this Order, stipulated penalties as set forth below shall be assessed against Respondent.

Compliance by Respondent with this Consent Order shall include completion of an activity under this Consent Order or a plan approved under this Consent Order in a manner acceptable to EPA, and within the specified time schedules in and approved under this Consent Order.

92. The stipulated penalties for violations relating to this Consent Order shall accrue as follows:

a. For failure to submit the EE/CA Work Plan, as required in Section VIII (Work to be Performed) above, in a timely and adequate manner as required by this Consent Order and the SOW:

(1) \$1,000 per day for the first through seventh days of noncompliance;

(2) \$2,000 per day for the eighth through the thirtieth days of noncompliance; and

(3) \$3,000 per day for the thirty-first day and each succeeding day of noncompliance thereafter.

b. For failure to submit monthly progress reports as required in Section VIII (Work to be Performed) above, in a timely and adequate manner as required by this Consent Order and the SOW:

(1) \$1,000 per day for the first through seventh days of noncompliance;

(2) \$2,000 per day for the eighth through the thirtieth days of noncompliance and;

(3) \$3,000 per day for the thirty-first day and each succeeding day of noncompliance thereafter.

c. For failure to submit a draft of the Site Characterization and Baseline risk Assessment sections of the EE/CA Report as required in Section VIII (Work to be Performed) above, in a timely and adequate manner as required by this Consent Order and the SOW:

(1) \$1,000 per day for the first through seventh days of noncompliance;

(2) \$2,000 per day for the eighth through the thirtieth days of noncompliance and;

(3) \$3,000 per day for the thirty-first day and each succeeding day of noncompliance thereafter.

d. For failure to submit an EE/CA Report, as required in Section VIII (Work to be Performed) above, in a timely and adequate manner as required by this Consent Order and the SOW:

(1) \$1,000 per day for the first through seventh days of no compliance;

(2) \$2,000 per day for the eighth through the thirtieth days of noncompliance and;

(3) \$3,000 per day for the thirty-first day and each succeeding day of noncompliance thereafter.

e. For failure to resubmit the EE/CA Report after EPA disapproval of a previous submission pursuant to Section XI (Submissions Requiring EPA Approval), in a timely and adequate manner as required by this Consent Order and the SOW:

(1) \$1,500 per day for the first through seventh days of noncompliance;

(2) \$2,500 per day for the eighth through the thirtieth days of noncompliance and;

(3) \$3,500 per day for the thirty-first day and each succeeding day of noncompliance thereafter.

93. All penalties shall begin to accrue on the date that complete performance is due or a violation or non-compliance occurs and shall continue to accrue through the final day of correction of the noncompliance. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Consent Order.

94. All penalties owing under this Section shall be due within thirty (30) days of receipt by Respondent of written demand by EPA for payment thereof. Interest shall begin to accrue on the unpaid balance at the end of this thirty (30) day period. Interest will accrue on the unpaid balance until such penalties and interest have been paid in full and will be compounded annually.

95. All penalties shall be paid by certified or cashier's check made payable to the "EPA Hazardous Substance Superfund", and shall be remitted to:

Mellon Bank
Attn: Superfund Accounting
EPA Region VII
(Comptroller Branch)
P.O. Box 360748M
Pittsburgh, PA 15251

All payments shall reference the EPA Docket Number which appears on the face of this Consent Order and the Site name and identification number ("07NY Operable Unit 02"), and shall indicate that they are in payment of stipulated penalties. A copy of the transmittal of payment shall be sent to EPA's Project Coordinator.

96. The stipulated penalties set forth in this Section do not preclude EPA from pursuing any other remedies or sanctions which may be available to EPA by reason of Respondent's failure to comply with any of the requirements of this Consent Order, nor shall payment of said penalties relieve Respondent of the responsibility to comply with this Consent Order.

XXII. RESERVATION OF RIGHTS

97. Except as expressly provided in this Order, each party reserves all rights and defenses it may have. 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 Order, including the right to seek injunctive relief and/or the imposition of statutory penalties and/or punitive damages. EPA also further reserves the right to take any legal or equitable action as it deems appropriate and necessary, or to require the Respondent in the future to perform additional activities pursuant to CERCLA or any other applicable law. EPA reserves the right to bring an action against Respondent under Section 107 of CERCLA, 42 U.S.C. § 9607, for recovery of any response costs incurred by the United States related to this Consent Order or the Site and not reimbursed by Respondent.

98. Respondent is advised that, pursuant to Section 106(b) of CERCLA, 42 U.S.C. § 9606(b), any person who willfully violates or fails or refuses to comply with an order issued pursuant to that Section, without sufficient cause, may, in addition to an action brought in the appropriate United States District Court to enforce the order, be fined not more than \$25,000.00 for each day in which such violation occurs or such failure to comply continues. In addition, pursuant to Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3), any person who is liable for a release or

threat of release of a hazardous substance and who fails without sufficient cause to provide properly the removal or remedial actions specified in an order issued pursuant to Section 106 of CERCLA may be liable to the United States for punitive damages in an amount equal to, and not more than three times the amount of any costs incurred by the United States as a result of such failure to take proper action.

XXIII. OTHER CLAIMS

99. By issuance of this Consent Order, the United States and EPA assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Respondent. Neither the United States nor EPA shall be a party or be held out as a party to any contract entered into by the Respondent or its agents, successors, representatives, contractors, or assigns in carrying out activities pursuant to this Consent Order. Neither the Respondent nor its agents, successors, representatives, contractors, or assigns shall be considered an agent of the United States.

100. Nothing in this Consent Order constitutes a satisfaction of or release from any claim or cause of action

against the Respondent or any person not a party to this Consent Order, for any liability such person may have under CERCLA, RCRA or other statutes, or the common law, including, but not limited to, any claims of the United States for costs, damages and interest under Sections 104 and 107(a) of CERCLA, 42 U.S.C. §§ 9604 and 9607(a).

101. This Consent Order does not constitute a preauthorization of funds under Section 111(a)(2) of CERCLA, 42 U.S.C. § 9611(a)(2). The Respondent agrees not to sue the United States for, and waives any claim to, payment under Sections 106(b), 111, and 112 of CERCLA, 42 U.S.C. §§ 9606(b), 9611, and 9612, against the United States or the Hazardous Substances Superfund arising out of any activity performed under this Consent Order.

102. No action or decision by EPA pursuant to this Consent Order 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).

XXIV. CONTRIBUTION

103. With regard to claims for contribution against Respondent for matters addressed in this Consent Order, the

parties hereto agree that the Respondent is entitled to protection from such contribution actions or claims to the extent provided by Section 113(f)(2) of CERCLA, 42 U.S.C. § 9613(f)(2).

104. Nothing in this Consent Order precludes the United States or Respondent from asserting any claims, causes of action or demands against any persons who are not parties to this Consent Order for indemnification, contribution, or cost recovery.

105. Respondent agrees that with respect to any suit or claim for contribution brought against it for matters covered by this Consent Order, it will notify EPA of the institution of the suit or claim within thirty (30) days of service of any such suit or claim.

XXV. INDEMNIFICATION

106. Respondent agrees to indemnify, save and hold harmless the United States, its officials, agents, contractors, and employees from any and all claims or causes of action arising from, or on account of, acts or omissions of Respondent, its officers, employees, contractors, subcontractors, receivers, trustees, agents, successors or assigns, in carrying out activi-

ties pursuant to this Consent Order, including, but not limited to, claims arising from construction delays.

107. Respondent agrees to pay the United States all costs the United States incurs, including, but not limited to, attorney's fees and other expenses of litigation and settlement arising from, or on account of, claims made against the United States based on acts or omissions of Respondent, or any of 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 Consent Order.

XXVI. MODIFICATIONS

108. This Consent Order may be modified by mutual agreement of the Respondent and EPA. Any such amendment shall be in writing and shall be signed by an authorized representative of Respondent and EPA. Unless otherwise provided for in the amendment, the effective date of any such modification shall be the date on which the written agreement or modification is signed by EPA after signature of the Respondent. All modifications

shall be incorporated into and become a part of this Consent Order.

109. No informal advice, guidance, suggestion or comment by EPA regarding reports, plans, specifications, schedules, or any other writing submitted by the Respondent shall relieve the Respondent of its obligation to obtain such formal approval as may be required by this Consent Order, and to comply with all requirements of this Consent Order unless or until this Consent Order may be formally modified.

XXVII. NOTICE OF COMPLETION

110. When EPA determines, after EPA's review of the Final EE/CA Report, that all Work has been fully performed in accordance with this Consent Order, except for certain continuing obligations required by this Consent Order (e.g., record retention, etc.), and that all goals and objectives of this Consent Order and the SOW have been satisfied, EPA will provide Notice of Completion to the Respondent. If EPA determines that any Work has not been completed in accordance with this Consent Order, EPA will notify the Respondent, provide a list of the deficiencies, and require that Respondent modify the Work Plan to

correct such deficiencies in accordance with the schedule contained in EPA's notice. The modified Work Plan shall be subject to approval as specified in Section XI (Submissions Requiring EPA Approval). The Respondent shall implement the modified and approved Work Plan and shall submit a modified Final EE/CA Report in accordance with the EPA notice.

XXVIII. SEVERABILITY

111. If any judicial or administrative authority issues an order that invalidates any provision of this Consent Order, or finds that Respondent has sufficient cause not to comply with one or more provisions of this Consent Order, then Respondent shall remain bound to comply with all other provisions of this Consent Order.

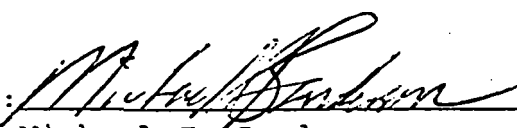
XXIX. SIGNATURE BY PARTIES

112. This Consent Order may be executed in any number of counterparts, each of which when executed and delivered to EPA shall be deemed to be an original, but such counterparts shall together constitute one and same document.


XXX. EFFECTIVE DATE

113. This Consent Order shall become effective on the date the Consent Order is filed and file-stamped by the Regional Hearing Clerk after signature by the parties. A file-stamped copy of the Consent Order will be mailed to each party.

IT IS SO ORDERED

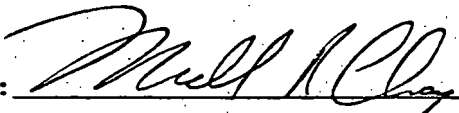
BY:  DATE: 6/30/97
Michael J. Sanderson
Director
Superfund Division
Region VII
United States Environmental Protection Agency

For the United States Environmental Protection Agency

BY:  DATE: 6/30/97
Gerhardt Braeckel
Assistant Regional Counsel
Region VII
United States Environmental Protection Agency

The representative of the Respondent who has signed the signature page certifies that he/she is fully authorized to enter into the terms and conditions of this Consent Order and to bind the party he/she represents to this document.

For INTERSTATE POWER COMPANY:

BY: 

DATE: 6-27-97

Name: MICHAEL R. CHASE
Title: PRESIDENT & CEO

ATTACHMENT I

ENGINEERING EVALUATION/COST ANALYSIS
STATEMENT OF WORK
CLINTON COAL GAS SITE

1.0 INTRODUCTION

The activities described in the Statement of Work (SOW) are to be undertaken for the purpose of conducting an Engineering Evaluation/Cost Analysis (EE/CA) to investigate the nature and extent of contamination, assess the potential risk to human health and the environment presented by such contamination, and develop and evaluate potential removal alternatives at the Site.

Respondents shall conduct this investigation and shall produce an EE/CA Report that are in accordance with this SOW, the Guidance on Conducting Non-Time-Critical Removal Actions Under CERCLA (EPA/540-R-93-057, August 1993), and any other guidance that EPA uses in conducting an EE/CA, as well as any additional requirements in the Order. The Non-Time-Critical Removal Guidance describes the EE/CA report format and the required report content.

As stated in the attached Consent Order (Paragraphs 28 & 29), this SOW imposes only investigative responsibilities on Respondent, and does not address responsibilities relating to removal or remediation. The exercise or performance by Respondent of any responsibilities imposed by this SOW shall not constitute, nor be interpreted as, an acceptance of or admission by Respondent of any responsibility to treat, remediate, or remove any non-manufactured gas plant contaminants, contamination, hazardous substances, and waste found at the Site. By entering into this SOW, Respondent has not waived any defenses it has or may claim to have, in any action brought, or with respect to any claims made, against Respondent concerning the treatment, remediation, or removal of any non-manufactured gas plant contaminant, contamination, hazardous substances, or waste found at the Site.

A separate Superfund removal action addressing the lead-contaminated soils and structures at the Allied Steel portion of the site may be going on at or about the same time as the work

provided for under this SOW. The lead removal action will be conducted by Riverview Partners pursuant to an Administrative Order on Consent (AOC) for Removal Activities, Docket No. VII-96-F-0015. The lead removal AOC allows for both excavation with off-site disposal and capping of some lead contaminated soils in place. Provision should be made in the EE/CA Work Plan for any disturbance of capped areas, including disposal of investigation generated wastes in accordance with the Deed Restriction which will be filed pursuant to the AOC for the former Allied Steel property.

In the event that IPW's investigation of the coal tar contamination at the Site requires that the cap be breached, IPW shall notify Riverview Partners and the EPA of such requirement. Nothing contained in this SOW shall be interpreted as a requirement that Respondent breach the cap other than for the limited purpose of conducting an investigation with respect to contamination located beneath the cap.

2.0 TASK I - PROJECT PLANNING

Respondents shall gather and evaluate the existing site information, develop a conceptual understanding of the potential site risks, and develop an EE/CA Work Plan.

2.1 Site Background and Conceptual Understanding

Respondents shall compile and evaluate available background information to assist in planning the scope of the EE/CA. This shall include information and analytical data obtained from any previous investigations conducted at the Site. Information concerning physical characteristics, waste sources, types and concentrations of contaminants, affected media, rates of migration, migration pathways, exposure pathways, and potential receptors shall be used to develop a conceptual understanding of the Site to evaluate potential risks to human health and the environment. A conceptual understanding of the potential site risks shall be utilized to develop the scope and objectives of the EE/CA.

2.2 EE/CA Work Plan, QAPP, H&SP

Respondents shall submit an EE/CA Work Plan to EPA. The

EE/CA Work Plan shall include a Quality Assurance Project Plan (QAPP), and a Site Health and Safety Plan (H&SP). The EE/CA Work Plan must be approved by EPA prior to the initiation of field activities.

2.2.1 EE/CA Work Plan

The EE/CA Work Plan shall include a comprehensive description of the work to be performed, including the methodologies to be utilized, as well as a corresponding schedule for completion. In addition, the EE/CA Work Plan shall include the rationale for performing the activities.

The EE/CA Work Plan shall state the objectives of the EE/CA. It shall include the following: (1) a background summary setting forth a description of the Site including the geographic location and site management; (2) to the extent possible, a description of physiography, hydrology, geology, and demographics, as well as ecological, cultural and natural resource features; (3) a synopsis of the history and a description of previous activities that have been conducted by local, state, Federal, or private parties; and (4) a summary of the existing data in terms of physical and chemical characteristics of the contaminants identified, and their distribution among the environmental media in the vicinity of the Site.

The EE/CA Work Plan shall include specific sampling objectives, sample location and frequency, sampling equipment and procedures, and sample handling and analysis. Sampling and analysis shall be conducted in accordance with technically acceptable protocols that meet data quality objectives ("DQOs"), which shall be stated in the QAPP. Provision should be made in the EE/CA Work Plan for any disturbance of any capped lead-contaminated soils, including disposal of investigation generated wastes in accordance with the Deed Restriction which will be filed pursuant to the AOC for the former Allied Steel property.

The EE/CA Work Plan shall include the preparation of an appropriate document setting forth a preliminary identification of removal alternatives and data needs for evaluation of removal alternatives. The EE/CA Work Plan

shall present the following: (1) a detailed description of the tasks to be performed; (2) information needed from each task; and (3) a description of the work products that shall be submitted to EPA, as set forth in the remainder of this SOW; (4) a schedule; (5) project management plan; and (6) data management plan addressing monthly reports, meetings and presentations.

The EE/CA Work Plan shall include the preparation of an appropriate document setting forth a preliminary identification of potential ARARs. These potential ARARs will be used to assist in the determination of site characterization needs, the refinement of removal action objectives, and the initial identification of removal action alternatives and ARARs associated with particular actions. ARAR identification shall continue as site conditions, contaminants, and removal action alternatives are better defined.

Because of the iterative nature of the EE/CA, additional data requirements and analyses may be identified throughout the process. If any additional data requirements are identified, the Respondents shall inform and propose the additional data requirements in a technical memorandum to EPA for review and approval. Respondents are responsible for fulfilling additional data and analysis needs identified by EPA consistent with the general scope and objectives of this EE/CA.

2.2.2 Quality Assurance Project Plan

A Quality Assurance Project Plan ("QAPP") shall be prepared and submitted to EPA that describes the project objectives and organization, functional activities, and QA/QC protocols that shall be used to achieve the project objectives. The QAPP shall address general sampling procedures, sample custody, analytical procedures including appropriate detection limits, and data reduction, validation, reporting and personnel qualifications.

The Respondent shall demonstrate, in advance, to EPA's satisfaction, that each laboratory it uses is qualified to conduct the proposed work. The laboratory shall have and

follow a QA program. If a laboratory not in the Contract Laboratory Program ("CLP") is selected, methods consistent with CLP methods that would be used for the purposes proposed and quality assurance and quality control ("QA/QC") procedures approved by EPA shall be used.

2.2.3 Site Health and Safety Plan

A Site Health and Safety Plan ("H&SP") shall be prepared in accordance with OSHA regulations and protocols and submitted to EPA for review. The H&SP shall include a description of the potential physical and chemical risks present; a description of monitoring and personal protective equipment; medical monitoring; air monitoring; and facility control. Field personnel shall conform to regulatory training requirements as applicable.

3.0 TASK III - SITE CHARACTERIZATION

The overall objective of site characterization is to describe all areas of the Site that may pose a threat to human health or the environment. Respondents shall determine the Site's physiography, geology, and hydrology. Surface and subsurface pathways of migration shall be defined. Respondents shall identify the sources of contamination within the Site and define the nature, extent, and volume of the sources of contamination at the Site, including their physical and chemical character as well as their concentrations at incremental locations to background in the affected media. Respondents shall also investigate the extent of migration of contamination as well as its volume and any changes in its physical or chemical characteristics, to provide for a comprehensive understanding of the nature and extent of contamination at the Site. Using this information, contaminant fate and transport is then determined and projected.

During this phase of the EE/CA, the EE/CA Work Plan, QAPP, and H&SP are implemented. Field data are collected and analyzed to provide the information required to accomplish the objectives of the study.

3.1 Field Investigation

Field investigation includes the gathering of data to define site characteristics, sources of contamination, and the nature and extent of contamination at the Site. These activities shall be performed by Respondent in accordance with the EE/CA Work Plan. This shall include performance of the activities as discussed in the following sections.

3.1.1 Investigate And Define Site Physical Characteristics

Respondents shall collect data on Site characteristics and its surrounding areas including the physiography, geology, hydrology, and specific physical characteristics identified in the EE/CA Work Plan. This information shall be ascertained through a combination of physical measurements, observations, and sampling efforts and shall be utilized to define potential transport pathways and human and ecological receptor populations. In defining the Site's physical characteristics, Respondents shall also obtain sufficient engineering data (such as pumping characteristics) for the projection of contaminant fate and transport, and identification and analysis of removal action alternatives, including information to assess treatment technologies.

The demographics of the region surrounding the Site shall be evaluated, updated, and expanded, as necessary to meet the project objectives and to provide an appropriate and adequate understanding of the following issues:

- Land use and population in the vicinity of the Site;
- The ecological setting of the Site and surrounding vicinity; and
- Identification and evaluation of natural resources, critical habitats and endangered species in the vicinity of the Site that are or may be injured by on-site and off-site contamination.

3.1.2 Define Sources Of Contamination

Respondents shall locate the source(s) of contamination within the Site, provided, however, that Respondent shall not be required to locate, trace or investigate the off-Site origin or source of any contaminants, contamination, hazardous substances, and waste found at the Site other than those attributed to the operation of a manufactured gas plant ("mgp") at the Site. For each location, the horizontal and vertical extent of contamination shall be determined by sampling site media at incremental depths at appropriate sampling locations. The physical characteristics and chemical constituents and concentrations shall be determined for all known and discovered sources of contamination within the Site. Respondents shall conduct sufficient sampling to define the boundaries of the contaminant sources to the level established in the QAPP. Defining the source of contamination shall include: analysis of the potential for contaminant release; contaminant mobility and persistence; and, the characteristics necessary for evaluating removal actions and treatment technologies.

The following items shall be addressed to define the potential sources of impact from the Site:

- Evaluation of Site disposal practices to determine the types of materials disposed, the location of disposal activities, and the period of disposal. This may be accomplished by conducting interviews with past employees, a critical review of aerial photographs and subsurface investigations.
- Definition of the horizontal and vertical extent of contaminated waste, and impacted soils, sediments, surface water, and groundwater.
- Characterization of all site contaminant source areas including relief holders, tanks, drip pits, tar separators, tar wells, and any additional areas or structures that may be source areas for site contamination.
- The design and implementation of sampling and monitoring programs to define the nature and extent of

light non-aqueous phase liquids ("LNAPL") and dense non-aqueous liquid phase liquids ("DNAPL") at and/or from the Site.

- Identification of potential mechanisms of release, and/or transport and potential human and environmental receptors.

3.1.3 Physical And Chemical Characterization

Data shall be collected during the field investigation to enable characterization of the physical framework of the materials at and beneath the Site and to evaluate potential contaminant distribution and concentration in those materials. Activities to address physical and chemical characterization of these media are discussed in the following sections. The list of constituents to be sampled shall include only those constituents that are appropriate to the Site and the contamination reasonably expected to be encountered there.

3.1.3.1 Soil And Bedrock Characterization

The physical framework and chemical quality of the soil and bedrock at and beneath the Site shall be determined. Characterization activities shall include, but not be limited to, the following items:

- Characterization of the lithology and stratigraphy of the soils and bedrock at and beneath the Site.
 - Soil characteristics (e.g.: soil type, holding capacity, biological activity, engineering properties, solubility, ion speciation, adsorption coefficients, leachability, mineral partition coefficients, cation exchange capacity, and chemical and sorptive properties) shall be evaluated as such relate to potential occurrence and migration of any contaminants.
 - The physical characterization of the unconsolidated profile shall include an evaluation of unit morphology, unit thickness, areal extent

and local lateral facies changes, and hydraulic properties.

- Bedrock characteristics (e.g: bedrock stratigraphy, bedrock topography, karstic features, geologic features, structural features, mineralogy, cementation, porosity, permeability and other hydraulic properties) shall be evaluated as such relate to potential occurrence and migration of any contaminants, provided, however, that in view of the potential depth of the bedrock at the Site, rock-coring of the bedrock shall not be required unless preliminary investigations indicate the likelihood that the bedrock is contaminated.
- Determination of the horizontal and vertical extent of the contaminants. Initial chemical characterization samples shall be analyzed for volatile and semivolatile organic compounds, metals, and cyanides. Based on the results of initial sampling, the analyte list may be reduced to a more focused suite of chemicals.
- Determination of contaminant migration pathways and the persistence of the contaminants and related impacts.
- Determination of the extent of leachate migration in soil and bedrock adjacent to potential sources.

3.1.3.2 Hydrogeologic Framework And Groundwater Contamination

The hydrogeologic framework and the extent of potential groundwater impact associated with the contaminants in or originating from the Site shall be characterized. Characterization activities shall address, but not be limited to, the following:

- Determination of the nature of groundwater occurrence and flow beneath and in the vicinity of the Site which may include collection of monthly water levels, performance of aquifer testing, water balance

calculations, evaluation of seasonal fluctuation in groundwater levels, seasonal gradient, flow rates and directions, transient gradients and impact to nearby surface water as such relate to potential occurrence and migration of any contaminants.

- Determination of the horizontal and vertical extent of the contaminants. Initial chemical characterization samples shall be analyzed for volatile and semivolatile organic compounds, metals, and cyanides. Based on the results of initial sampling, the analyte list may be reduced to a more focused suite of chemicals.
- Determination of contaminant migration pathways and the persistence of the contaminants and related impacts.
- Determination of seasonal variations on groundwater characteristics.
- Determination of groundwater flow conditions at and adjacent to the Site to include, but not limited to, the analysis of hydrologic relationships between the Site and the Mississippi River and impact to surface water quality.

3.1.3.3 Surface Water And Sediment Condition

The hydrologic framework and condition of nearby surface water and sediment associated with the contaminants in or originating from the Site shall be characterized. Characterization activities shall include, but not be limited to, the following items:

- Collection of climatic and river stage data.
- Determination of surface drainage patterns.
- Determination of the horizontal and vertical extent of potential surface water and sediment impact and general surface water quality which shall include an evaluation of Site impact on the Mississippi River. Initial chemical characterization samples shall be analyzed for

volatile and semivolatile organic compounds, metals, and cyanides. Based on the results of initial sampling, the analyte list may be reduced to a more focused suite of chemicals.

- Determination of potential migration pathways including sewers and other man-made subsurface structures and the persistence of the contaminants and related impacts.
- Determination of the seasonal variations in surface water chemistry.

3.1.4 Describe the Nature and Extent of Contamination

Respondents shall gather information to describe the nature and extent of contamination as a final step during the field investigation. To describe the nature and extent of contamination, Respondents shall utilize the information on Site physical and biological characteristics, sources of contamination, contaminant migration, and volume and toxicity of contaminated materials. Respondents shall then implement an iterative monitoring program and any study program identified in the EE/CA Work Plan such that by using analytical techniques sufficient to detect and quantify the concentration of contaminants, the migration of contaminants through the various media at the Site can be determined. In addition, Respondents shall gather data for calculations of contaminant fate and transport. This process is continued until the horizontal and vertical extent of contamination are known to the level of contamination established in the QAPP. Respondents will use the information on the nature and extent of contamination to determine the level of risk presented by the Site. Respondents shall use this information to help to determine aspects of the appropriate removal action alternatives to be evaluated.

3.2 Data Analyses and Evaluation of Site Characteristics

Respondents shall analyze and evaluate the data to describe: (1) Site physical characteristics, (2) contaminant source characteristics, (3) nature and extent of contamination and (4) contaminant fate and transport. Results of the Site physical characteristics, source characteristics, and extent of

contamination analyses shall be utilized to evaluate contaminant fate and transport. The evaluation shall include the actual and potential magnitude of releases from the sources, and horizontal and vertical spread of contamination as well as mobility and persistence of contaminants. Where modeling is appropriate, such models shall be identified to EPA in a technical memorandum prior to their use. All data and programming, including any proprietary programs, shall be made available to EPA together with a sensitivity analysis. Analyses of data collected for Site characterization shall meet the DQOs developed in the QAPP.

3.3 Data Management Procedures

The quality and validity of field and laboratory data compiled shall be adequately and consistently documented during performance of the EE/CA.

3.3.1 Document Field Activities

Information gathered during site characterization shall be consistently documented and adequately recorded in well maintained field logs and laboratory reports. The method(s) of documentation shall be specified in the EE/CA Work Plan. Field logs shall be utilized to document observations, measurements, and significant events that have occurred during field activities. Laboratory reports shall document sample custody, analytical responsibility, analytical results, adherence to prescribed protocols, nonconformity events, corrective measures, and/or data deficiencies.

3.3.2 Maintain Sample Management and Tracking

Field reports, sample shipment records, analytical results, and QA/QC reports shall be maintained to ensure that only validated analytical data are reported and utilized in the development and evaluation of remedial alternatives. Analytical results developed under the EE/CA Work Plan shall not be included in any site characterization reports unless accompanied by or cross-referenced to a corresponding QA/QC report. In addition, a data security system shall be established to safeguard chain-of-custody forms and other project records to prevent loss, damage, or alteration of project documentation.

3.4 Risk Evaluation

Respondents shall prepare a Baseline Risk Assessment to identify and characterize the actual and potential risks to human health and the environment due to contamination at the site. The Baseline Risk Assessment shall be prepared in accordance with EPA's Risk Assessment Guidance for Superfund consisting of the following two volumes: the Human Health Evaluation Manual, dated October 1989 (OSWER Directive number 9285.7-01a) and the Environmental Evaluation Manual, dated March 1989 (OSWER Directive number 9285.7-02). A draft Baseline Risk Assessment shall be submitted to EPA for review prior to preparation of the EE/CA Report.

4.0 TASK IV - IDENTIFICATION OF REMOVAL ACTION OBJECTIVES

Respondents shall identify the scope, goals, and objectives for the removal action. The removal action objectives shall specify the contaminants and media of interest, exposure pathways and receptors, and an acceptable contaminant level or range of levels.

5.0 TASK V - IDENTIFICATION AND ANALYSIS OF REMOVAL ACTION ALTERNATIVES

Respondents shall identify and assess a limited number of removal action alternatives appropriate for addressing the removal action objectives which are based on the analysis of the nature and extent of contamination. Various treatment technologies shall be considered and analyzed for their short- and long-term effectiveness, implementability, and cost.

5.1 Treatment Technologies

Whenever practicable, the alternatives selection process should consider the CERCLA preference for treatment over conventional containment or land disposal approaches. Based upon the available information, the most qualified technologies that apply to the media or source of contamination should be discussed.

5.2 Effectiveness

The effectiveness of an alternative refers to its ability to meet the objective within the scope of the removal action. Overall protection of public health and the environment must be discussed. Considered in this discussion are long-term effectiveness and permanence, short-term effectiveness, and compliance with ARARs.

5.3 Implementability

Implementability of an alternative refers to the technical and administrative feasibility of its implementation. Also considered in the discussion of implementability are the availability of services and materials and state and community acceptance of an alternative.

5.4 Cost

Each removal action alternative must be evaluated to determine its projected cost. The present worth of alternatives that last longer than 12 months should be calculated.

6.0 TASK VI - COMPARATIVE ANALYSIS OF REMOVAL ACTION ALTERNATIVES

Respondents shall perform a comparative analysis of the alternatives described in Task V to evaluate the relative performance of each alternative in relation to each of the criteria. The comparative analysis should identify the advantages and disadvantages of each alternative relative to one another so that tradeoffs that would affect remedy selection can be identified.

7.0 TASK VII - INTERIM REPORTING

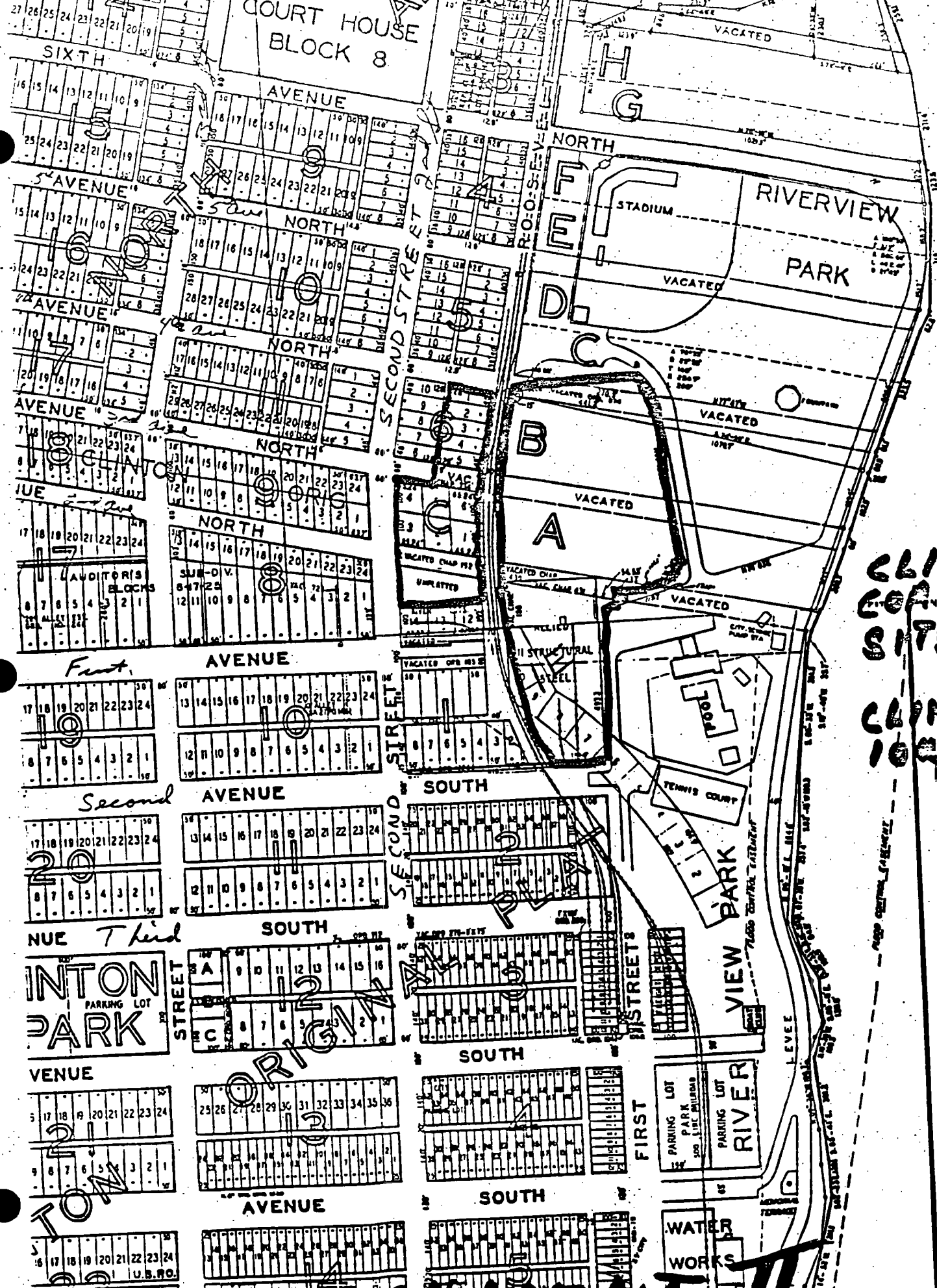
Prior to the submission of the final EE/CA, Respondent shall submit periodic technical memoranda to EPA for approval setting forth any results, conclusions, and recommendations, as appropriate, regarding the various tasks required under this SOW.

8.0 TASK VIII - ENGINEERING EVALUATION/COST ANALYSIS REPORT

A EE/CA Report shall be prepared and submitted to EPA for review and approval. The EE/CA Report shall contain the elements

listed in Exhibit 5 on page 23 of the Guidance on Conducting Non-Time-Critical Removal Actions Under CERCLA, (EPA 540-R-93-057, August 1993) where applicable. The EE/CA Report will be subject to the review and approval procedures set out in the Administrative Order on Consent, in particular, Section VII (Work to be Performed), Section XI (Submissions Requiring EPA Approval) and Section XXVII (Notice of Completion).

COURT HOUSE
BLOCK 8



CLINTON
COAL
SITE
CLINTON
IOWA

ATTACHMENT II