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

REGIONAL HEARING CLERK  
 DEC 29 1993  
 Environmental Protection Agency  
 REGION VII

IN THE MATTER OF )  
 )  
 Waterloo Coal )  
 Gasification Plant )  
 IAD984566356 )  
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 )  
 MIDWEST GAS, A DIVISION )  
 OF MIDWEST POWER SYSTEMS INC. )  
 401 Douglas Street )  
 P.O. Box 778 )  
 Sioux City, IA 51102 )  
 )  
 Respondent )  
 )  
 Proceedings Under Sections 106(a) )  
 and 122 of the Comprehensive )  
 Environmental Response, )  
 Compensation, and Liability Act )  
 (CERCLA) as amended )  
 42 U.S.C. §§9606(a) and 9622. )  
 \_\_\_\_\_ )

Docket No. VII-94-F-0016

ADMINISTRATIVE ORDER ON  
 CONSENT FOR REMOVAL  
 RESPONSE ACTIVITIES

ADMINISTRATIVE ORDER ON CONSENT

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 Superfund

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

IN THE MATTER OF )

Waterloo Coal )  
Gasification Plant )  
IAD984566356 )

) Docket No. VII-94-F-0016

MIDWEST GAS, A DIVISION )  
OF MIDWEST POWER SYSTEMS INC. )  
401 Douglas Street )  
P.O. Box 778 )  
Sioux City, IA 51102 )

) ADMINISTRATIVE ORDER ON  
) CONSENT FOR REMOVAL  
) RESPONSE ACTIVITIES

) Respondent )

)  
) Proceedings Under Sections 106(a)  
) and 122 of the Comprehensive  
) Environmental Response,  
) Compensation, and Liability Act  
) (CERCLA) as amended )  
) 42 U.S.C. §§9606(a) and 9622. )  
)  

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This Administrative Order on Consent ("Order") is entered into by the United States Environmental Protection Agency ("EPA") and Midwest Gas, a Division of Midwest Power Systems Inc. ("Midwest Gas"), and its receivers, trustees, successors, heirs and assigns, ("Respondent"). This Order concerns the performance of removal actions by Respondent and reimbursement of response costs incurred by the United States in connection with the Waterloo Coal Gasification Site located in Waterloo, Black Hawk County, Iowa ("the Site").

## I. JURISDICTION AND GENERAL PROVISIONS

1. This Order is issued pursuant to the authority vested in the President of the United States by Sections 106(a) and 122 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, ("CERCLA") 42 U.S.C. §§ 9606(a) and 9622, as amended, and delegated to the Administrator of the United States Environmental Protection Agency by Executive Order No. 12580, January 23, 1987, 52 Federal Register 2923, and further delegated to the Regional Administrator by EPA delegation Nos. 14-14-A, dated April 16, 1984, and 14-14-C, dated September 13, 1987. This authority was subsequently delegated to the Director, Waste Management Division, by EPA Delegation No. R7-14-14-C dated May 16, 1988.

2. This Order pertains to property located at the Waterloo Coal Gasification Plant in Waterloo, Black Hawk County, Iowa ("the Site"). This Order requires the Respondent to undertake and complete removal actions described herein to protect public health, welfare and the environment.

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

4. Respondent's participation in this Order shall not constitute and be construed as an admission of the facts stated in the Findings of Fact and of EPA's Conclusions of Law contained in this Order, but Respondent agrees not to contest the Findings of Fact or Conclusions of law in a proceeding to enforce the terms of this Order.

5. Respondent agrees to comply with and be bound by the terms of this Order. Respondent consents to and will not contest EPA's authority or jurisdiction to issue or to enforce this Order. Nor will Respondent contest the basis or validity of this Order or its terms in any proceeding to enforce the terms of this Order.

## II. PARTIES BOUND

6. This Order applies to and is binding upon EPA, and upon Respondent, its heirs, receivers, trustees, successors and assigns. Any change in ownership of the Site property or ownership or corporate status of Respondent, including but not limited to, any transfer of assets or real or personal property shall in no way alter such Respondent's responsibilities under this Order.

7. Respondent shall ensure that its contractors, subcontractors, and representatives comply with this Order. Respondent shall be responsible for any noncompliance by such persons.

## III. DEFINITIONS

8. Unless otherwise expressly provided herein, terms used in this Order, which are defined in CERCLA or in regulations promulgated under CERCLA, shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Order or in the appendices attached hereto and incorporated hereunder, the following definitions shall apply:

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

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

c. "EPA" shall mean the United States Environmental Protection Agency and any successor department or agencies of the United States.

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, including, but not limited to, any amendments thereto.

e. "Order" shall mean this Administrative Order on Consent for Removal Response Activities and all appendices attached hereto. In the event of conflict between this Order and any other provision, this Order shall control.

f. "Oversight Costs" shall mean all direct and indirect costs incurred by EPA in connection with this Order after September 30, 1993, including but not limited to, time and travel costs of EPA personnel and associated indirect costs, contractor costs, interagency agreement costs, compliance monitoring, including collection and analysis of split samples, Site visits, discussions regarding disputes that may arise as a result of this Order, review and approval or disapproval of reports and costs of performing any of Respondent's tasks.

g. "Paragraph" shall mean a portion of this Order identified by an arabic numeral.

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

i. "Past Response Costs" shall mean all costs, incurred by the United States in relation to the Site prior to September 30, 1993. The amount of past costs due are \$139,206.42.

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

k. "Respondent" shall mean Midwest Gas, a Division of Midwest Power Systems Inc., its heirs, agents, successors, trustees and assigns.

l. "Section" shall mean a portion of this Order identified by a roman numeral.

m. "Site" shall mean the Waterloo Coal Gasification Site, located in Waterloo, Black Hawk County, Iowa, and depicted generally on the map attached as Attachment I.

n. "Statement of Work" or "SOW" shall mean the statement of work for implementation of the Removal Action at the Site, as set forth in Attachment II to this Order and any modifications made in accordance with this Order.

o. "Supervising Contractor" shall mean the principal contractor retained by the Respondent to supervise and direct the implementation of the Work under this Order.



p. "United States" shall mean the United States of America.

q. "Work" shall mean all activities Respondent is required to perform under this Order.

#### IV. FINDINGS OF FACT

9. Respondent Midwest Gas, a division of Midwest Power Systems Inc. (formerly Iowa Public Service Company), is a corporation organized and authorized to do business in the State of Iowa. Midwest Power Systems Inc. is a subsidiary of Midwest Resources Inc., an Iowa corporation.

10. The Waterloo Gas and Electric Company, an Iowa corporation, owned and operated a coal gasification plant between Sycamore and Elm Street along the Cedar River from 1901 through 1905. The original gas plant was constructed on Lots 3, 4, and 5 and the west part of Lot 1 in Cowins Subdivision in 1901. Additional real estate was acquired after 1901 as the manufactured gas plant operations expanded.

11. In 1906 Citizens Gas and Electric Company, an Iowa corporation, acquired Waterloo Gas and Electric Company and operated the gasification facility until approximately 1924.

12. In 1924 all of Citizens' assets were merged with two other utilities to become Central Iowa Power and Light.

13. Central Iowa Power and Light merged with other utilities in 1947 to become Iowa Public Service Company. Iowa Public Service Company underwent a corporate restructuring in July, 1992 to form Midwest Power Systems Inc.

14. The gasification plant at the Site produced gas by the coal gasification processes from 1901 until 1911. By 1910, the plant added Low water gas production. Additional facilities, including purification boxes, were also added at this time. In the early 1930s carburetted water gas was added. In 1947 or 1948 propane (propane/air) facilities were added to the plant to increase the total volume of gas generated from the facility. Two waste streams resulting from the coal, Low and water gas manufacturing and purification processes include coal tar residuals and associated wastes, and cyanide residuals.

15. Past waste handling practices at the Site resulted in spreading coal tar residuals, ash and associated wastes on unlined soils and filling topographical lows.

16. In 1954, natural gas was made available in Waterloo and the manufacture of gas from the plant was discontinued in 1956. Propane gas production continued at the site until the early 1960s.

17. The plant was dismantled during the period from 1964 to 1967. All materials of value that could be salvaged from the plant were sold. This included steel structural materials and approximately 1,000,000 gallons of tar product that was dehydrated and sold.

18. Groundwater samples and soil samples indicate the presence of black oily liquids ranging in viscosity from fluid to stiff.

19. The southeast corner of the Site was once a creek channel that led to the Cedar River and was used as a landfill for ash, cinders and coal tar residuals.

20. The Casebeer Heights Park recreational area is located on the Cedar River 5.75 miles down-stream of the site. This park has a boat ramp and access to the river for fishing.

21. The Site is located adjacent to the Cedar River in the east-central portion of Waterloo, Iowa. A 10-foot high concrete floodwall separates the site from the river. The floodwall is 3 feet higher than the 100-year floodplain elevation of 849.2 feet AMSL. The site is located approximately 100 feet north-northeast of the southeasterly trending Cedar River. The groundwater flow direction in areas adjacent to the river may be variable throughout the year in response to heavy infiltration events or high river stage.

22. The uppermost aquifer consists of all overburden and lithologic units located above the Ordovician age Maquoketa Formation. The Maquoketa Formation is a dolomitic shale and is a well established and documented regional confining unit. Stratigraphic units located above the Maquoketa Formation include Silurian and Devonian age lithologic units and Quaternary age overburden materials. All of the geologic units located above the Maquoketa Formation are considered to be in hydraulic communication and represent the uppermost aquifer at the site. This uppermost aquifer is often subdivided into upper, middle, or lower components based on differences in lithologies, however, the entire sequence

is considered to be one hydraulically connected unit. The municipal wells for the City of Waterloo and Evansdale are completed in the upper unconsolidated Quaternary age unit, the Silurian-Devonian aquifer, and a lower aquifer (Cambrian-Ordovician aquifer) located below the Maquoketa Formation. The municipal wells for the City of Evansdale, located to the southeast of the site, are completed in the Silurian-Devonian aquifer. The geology in the immediate vicinity of the site has not been adequately characterized to determine the potential interaction between the site and the municipal wells.

23. In December of 1988, EPA conducted a Screening Site Inspection (SSI) at the Site to evaluate the potential threat posed by Site conditions. Surface soil samples (0-6") and shallow soil samples (0-2') were collected and analyzed for volatile organic compounds (including benzene, ethylbenzene, toluene and xylene (BETX)), semi-volatile organic compounds (including polynuclear aromatic hydrocarbons (PAHs)), and cyanide. The following range of concentrations in milligrams per kilograms (mg/kg) in the soil were found in onsite soils:

<u>CONSTITUENT</u>	<u>SURFACE CONCENTRATION (0-6")</u>	<u>SHALLOW CONCENTRATION (0-2')</u>
Cyanide	.77 to 250.0 mg/kg	4.8 to 180.0 mg/kg
Total PAHs	1.0 to 903.6 mg/kg	3.7 to 978.8 mg/kg
BETX	ND (.005) to 4.9 mg/kg	ND to .082 mg/kg

24. In June 1989, the EPA conducted a Listing Site Inspection (LSI) at the Site to further assess the environmental concerns posed by Site conditions and the threat to local population.

Surface soil samples (0-6") and subsurface soil samples (composite samples from varying depth intervals between 5 and 25') were collected and analyzed. In addition, three onsite shallow groundwater monitoring wells and one off-site background monitoring well were installed and developed. One water sample was collected from each monitoring well. Soil samples and water samples were analyzed for semi-volatile organic compounds (including PAHs) and cyanide. The background well, located near the intersection of Union and Lafayette Streets, was non-detect for PAHs and cyanide. The following range of concentrations in milligrams per kilogram (mg/kg) (parts per million) in soils and micrograms per liter (ug/l) (parts per billion) in groundwater were found in onsite samples:

**SOIL:**

<u>CONSTITUENT</u>	<u>SURFACE CONCENTRATION (0-6")</u>	<u>SUBSURFACE CONCENTRATION (5-25')</u>
Cyanide	ND (5.05) to 12.1 mg/kg	ND (5.2) to 29.0 mg/kg
Total PAHs	9.3 to 172.1 mg/kg	12 to 2521.0 mg/kg

**GROUNDWATER:**

<u>CONSTITUENT</u>	<u>CONCENTRATION (ug/l)</u>
Cyanide	55.0 to 96.8 ug/l
Total PAHs	194 to 12,840 ug/l

25. In November/December 1991, a Limited Site Investigation (LimSI) was conducted at the Site by Midwest Gas to gather additional information. The investigation evaluated the following

soil zones: shallow subsurface soil contamination (0 to 6 feet in depth); intermediate subsurface soil contamination (7 to 14 feet in depth) and deep subsurface soil contamination (greater than 14 feet in depth). A total of 20 soil borings were advanced and composite soil samples were collected at varying depth intervals. Tar was encountered in borings advanced in areas of an underground gas holder and suspected underground tar storage tank. In addition, two on-site groundwater monitoring wells were installed and developed. Water samples were collected from these newly installed groundwater monitoring wells and also from three of the existing groundwater monitoring wells. The water sample from the background monitoring well was non-detect for volatile organic compounds (including BETX), semi-volatile organic compounds (including PAHs), and cyanide. The following range of concentrations in mg/kg in soils and ug/l in groundwater were found in onsite samples:

**SOIL:**

<u>CONSTITUENT</u>	<u>SHALLOW SUBSURFACE CONCENTRATION (0-6')</u>
Cyanide	0.5 to 232.0 mg/kg
Total PAHs	5 to 14,923 mg/kg
	<u>INTERMEDIATE SUBSURFACE CONCENTRATION (7-14')</u>
Total PAHs	.049 to 75,320 mg/kg
	<u>DEEP SUBSURFACE CONCENTRATION (14-44')</u>
Total PAHs	.038 to 3316 mg/kg

**GROUNDWATER:**

<u>CONSTITUENT</u>	<u>CONCENTRATION</u>
Cyanide	4.0 to 883 ug/l

Total PAHs	ND to 3,430 ug/l
BETX	ND to 10,460 ug/l

26. The highly concentrated PAHs in soils are believed to be a significant contributing factor to local groundwater contamination.

27. Polynuclear aromatic hydrocarbons (PAHs) constitute a class of compounds containing closed hydrocarbon rings. Generally, low molecular weight PAHs containing two or three aromatic rings pose a lower health risk than other PAHs of greater molecular weight. PAHs are toxic to people and animals via oral, dermal or respiratory routes of exposure. Some PAHs are animal carcinogens and mutagens. Some PAHs are probable human carcinogens. PAHs are moderately persistent in the environment and have some potential for short term bioaccumulation. PAHs have been detected at high levels on-site in soil and groundwater samples.

28. Cyanides are non-metal inorganic compounds. However, cyanides can combine with organics to form organocyanide compounds and with metals to form metal-cyanide compounds. The behavior, physical properties and toxicity of cyanides depend on the form of the cyanide present. The alkali metal salts are very soluble in water. Many cyanides are toxic to people and animals via inhalation, ingestion and skin absorption. Many cyanides are soluble in water. Some cyanides are not attenuated by clay soils, which makes them more mobile and more likely to result in groundwater contamination. Cyanides have been detected on-site in soil and groundwater samples.

29. Benzene, ethylbenzene, toluene, and xylene (BETX) are light aromatic compounds that also have been detected at the Site and are EPA priority toxic pollutants. They are slightly soluble in water and volatile in the environment.

a. Benzene may be absorbed via inhalation, ingestion, and skin absorption. Benzene is also a known human and animal carcinogen.

b. Ethylbenzene is toxic to both humans and animals. Routes of exposure are through inhalation, ingestion and dermal contact.

c. Toluene is harmful to the nervous system and may be absorbed via inhalation, ingestion and dermal contact.

d. Xylene is also harmful to the nervous system and may be absorbed via inhalation.

30. Human and animal populations may come into direct contact with contamination on site.

#### V. CONCLUSIONS OF LAW AND DETERMINATIONS

Based on the Findings of Fact set forth above, and the Administrative Record supporting these removal actions, EPA determines that:

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

32. Polynuclear aromatic hydrocarbons (PAHs), cyanides, benzene, ethylbenzene, toluene and xylene (BETX) as identified in the Findings of Fact above are each a "hazardous substance" as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).



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

34. Respondent, Midwest Gas, is liable under Section 107(a) (1) and (3) of CERCLA, 42 U.S.C. §9607(a)(1) and (3), as a person who is the owner and operator of a vessel or a facility, and one who by contract, agreement or otherwise arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment, of hazardous substances owned or possessed by such person.

35. The conditions described in the Findings of Fact above constitute an actual or threatened "release" into the "environment" as defined by Sections 101(8) and (22) of CERCLA, 42 U.S.C. §§ 9601(8) and (22).

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

a. Actual or potential exposure to hazardous substances by nearby human populations, animals, or the food chain from hazardous substances; this factor is present at the Site due to the existence of Polynuclear aromatic hydrocarbons (PAHs), cyanides, benzene, ethylbenzene, toluene, and xylene (BETX) in levels known to be dangerous to human health and the environment and existence

of human populations and the food chain in near proximity to the contamination.

b. High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate; this factor is present at the Site due to the existence of cyanide (0.5 to 232.0 mg/kg), PAHs (5 to 14,923 mg/kg). High levels of hazardous substances or pollutants or contaminants in groundwater due to the existence of cyanide (4.0 to 883 ug/l), total PAHs (ND to 3,430 ug/l) and BETX (ND to 10,460 ug/l). Benzene, ethylbenzene, toluene, and xylene (BETX) have also been detected at the Site and are EPA priority toxic pollutants.

37. The actual or threatened release of hazardous substances from the Site may present an imminent and substantial endangerment to the public health, welfare, or the environment within the meaning of Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

38. The removal actions required by this Order are necessary to protect the public health, welfare, or the environment, and are not inconsistent with the NCP.

#### VI. STATEMENT OF PURPOSE

39. The objectives of this Consent Order are:

a. To conduct a Removal Action to identify, excavate, process, and incinerate and/or dispose of all coal tar, visibly contaminated coal tar-impacted soils, and coal tar-impacted materials;

b. To conduct a comprehensive private and public well survey; and

c. To reimburse EPA for Oversight Costs it incurs with respect to this Consent Order and for Past Costs incurred by EPA in connection with the Site.

#### VII. WORK TO BE PERFORMED

40. Based upon the foregoing Findings of Fact, Conclusions of Law, Determinations, and the Administrative Record for this Site, it is hereby ordered and agreed that Respondent shall conduct a Removal Action that provides for the following:

a. Identification of the area and extent of source materials (coal tar and visibly contaminated coal tar-impacted soils). Identification of former waste management structures (e.g., relief holders, drip pits, and other storage structures).

b. Excavation of coal tar, visibly contaminated coal tar-impacted soils, and coal tar-impacted materials.

c. Preparation of excavated coal tar and coal tar-impacted soils and materials for onsite treatment and/or transportation offsite for incineration or disposal.

d. Comprehensive public and private well survey to determine potential receptors of groundwater from the Site.

41. All Work to be performed under this Consent Order shall be performed under the direction and supervision of qualified personnel. The qualifications of the persons undertaking the Work for the Respondent shall be subject to EPA's review, for verification that such persons meet minimum technical background and experience requirements for that portion of the Work that may be performed by that person. The names, titles, and qualifications

of potential Respondent personnel, contractors, subcontractors, laboratories, and consultants, shall be provided in the Work Plans, as submitted by Respondent to EPA for review and approval. If EPA disapproves in writing of any person's technical qualifications, Respondent shall notify EPA of the identity of and qualifications of the replacement within thirty (30) days of the written notice. If EPA subsequently disapproves of the replacement, EPA reserves the right to terminate this Consent Order and to conduct the actions set forth in this Consent Order, and to seek reimbursement for costs and penalties from Respondent. During the course of Work performed pursuant to this Order, Respondent shall notify EPA in writing within fourteen (14) days of any changes or additions in the personnel used to carry out such work, providing their names, titles, and qualifications. EPA shall have the same right to disapprove changes and additions to personnel as it has hereunder regarding the initial notification.

42. Respondent shall conduct activities and submit deliverables as set forth below to accomplish the objectives of this Consent Order. All such Work shall be conducted in accordance with CERCLA, the NCP, and EPA guidances, including, but not limited to, the documents listed in Attachment III. All Work performed under this Consent Order shall be completed in accordance with the schedules set forth herein, and shall comply with the standards, specifications, and other requirements of the Removal Action Work Plan (RAWP), as approved or modified by EPA.

A. Work Plan and Implementation

43. The Removal Action shall be conducted as follows:

a. Within sixty (60) days of the effective date of this Consent Order, Respondent shall develop and submit to EPA for review and approval a RAWP that shall satisfy the requirements of this Consent Order and the Statement of Work (SOW) set forth in Attachment II, attached hereto and incorporated herein by reference. The RAWP shall describe the proposed tasks and schedules associated with excavation, processing, onsite material management, and offsite incineration and/or disposal of coal tar and visibly contaminated materials, including soils and former waste management structures (e.g., relief holders, drip pits, and other storage structures). The RAWP shall also describe the proposed tasks and schedules associated with conducting the private and public well survey.

b. Within sixty (60) days of the effective date of this Consent Order, Respondent shall develop and submit to EPA for review and approval a Field Sampling Plan (FSP) for test trenching activities, excavation activities, onsite materials management activities, material processing activities, and offsite transport activities, which, at a minimum, shall be developed in accordance with the SOW and the documents listed in Attachment III, attached hereto and incorporated herein by reference. The FSP shall describe the sample collection rationale and procedures, including types of samples, location of samples, number of samples, analytical parameters, and data quality objectives.

c. Within sixty (60) days of the effective date of this Consent Order, Respondent shall develop and submit for EPA review and approval a Quality Assurance Project Plan (QAPP) that describes the sample collection procedures, sample preservation and shipment procedures (including chain-of-custody documentation), and analytical procedures for the parameters listed in the FSP. The QAPP shall comply with applicable EPA guidance documents as listed in Attachment III.

44. Upon notification of approval by EPA of the work plans described in a, b, and c above, Respondent shall implement the work plans in accordance with the schedules contained therein.

45. Respondent shall provide EPA with analytical data at the time of submittal of the monthly progress reports, in both a paper copy and by electronic media, i.e., computer disk or other form, as specified by EPA, and in a form that shows the location, medium, results, and analytical reporting limits of each sample.

46. Within seven (7) days of completion of removal action field activities, Respondent shall verbally notify EPA that such activities have been completed.

B. Health and Safety Plan

47. Within sixty (60) days of the effective date of this Consent Order, Respondent shall develop and submit a site-specific Health & Safety Plan (HSP) for EPA review that conforms to applicable Occupational Safety and Health Administration and EPA requirements including, but not limited to, 29 C.F.R. 1910.120 et seq. Respondent shall incorporate all changes to the plan

recommended by EPA, and implement the plan during the pendency of the removal action.

C. Quality Assurance and Sampling

48. In order to provide quality assurance and maintain quality control regarding all samples collected and analyzed pursuant to this Consent Order, the EPA-approved QAPP required by this Consent Order shall be followed throughout all sample collection, analysis, and chain-of-custody activities. In addition:

a. Respondent shall specify all protocols to be used for sample collection and analyses in pertinent documents and/or plans. Laboratories used by the Respondent shall perform analyses according to EPA methods or methods that are deemed satisfactory to EPA. Laboratories used by the Respondent must have the ability to provide the same laboratory documentation as required by the EPA Contract Laboratory Program (CLP).

b. Laboratories used by Respondent shall implement a QA/QC program acceptable to EPA and shall make available, upon request by EPA, the same laboratory documentation as that required by the EPA CLP. As part of such program, and upon request by EPA, laboratories shall perform, at Respondent's expense, analysis of a reasonable number of audit samples provided by EPA to demonstrate the quality of the laboratory analytical data.

D. Post-Removal Site Control

49. To the extent practicable, Respondent shall provide for post-removal site control consistent with Section 300.415(k) of the NCP and OSWER Directive 9360.2-02.

VIII. DESIGNATION OF CONTRACTOR AND PROJECT COORDINATOR

50. Respondent shall perform the removal actions ordered themselves or retain (a) contractor(s) to implement these removal actions. Respondent shall notify EPA of Respondent's qualifications or the name and qualifications of such contractor(s) within sixty (60) days of the effective date of 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 Order at least fourteen (14) days prior to commencement of such work. EPA retains the right to disapprove of any, or all, of the contractors and/or subcontractors retained by the Respondent. If EPA disapproves of a selected contractor, Respondent shall retain a different contractor within ten (10) days following EPA's written disapproval and shall notify EPA of that contractor's name and qualifications within thirty (30) days of EPA's disapproval. If EPA still disapproves, EPA reserves the right to perform the Work.

51. Respondent's Project Coordinator shall be responsible for administration of all the Respondent's actions required by the Order. Respondent shall submit the designated Project Coordinator's name, address, telephone number, and qualifications to EPA prior to the effective date of this Order. To the greatest extent possible, the Respondent's Project Coordinator shall be



present on site or readily available during Site Work. EPA retains the right to disapprove of any Project Coordinator named by the Respondent. If EPA disapproves of a selected Project Coordinator, Respondent shall retain a different Project Coordinator within ten (10) calendar days following EPA's disapproval and shall notify EPA of that person's name and qualifications within twelve (12) days of EPA's disapproval. If EPA still disapproves, EPA reserves the right to perform the Work. Receipt by Respondent's Project Coordinator of any notice or communication from EPA relating to this Order shall constitute receipt by all Respondent.

52. The EPA has designated James Colbert of the Region VII Superfund Branch as its Project Coordinator. Respondent shall direct all submissions required by this Order to James Colbert, WSTM/SPFD/REME at 726 Minnesota Ave., Kansas City, Kansas 66101, by certified mail. EPA and Respondent shall have the right to change their designated Project Coordinator. Oral 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 ten (10) days of such change.

#### **IX. REPORTING**

53. Respondent shall submit a written progress report to EPA concerning activities undertaken pursuant to this Order the tenth day of every month until termination of this Order, unless otherwise directed by EPA. These reports shall describe all significant developments during the preceding period, including the Work scheduled for completion, the actual Work performed, any

problems encountered in completing this Work, and the developments anticipated during the next reporting period, including a schedule for completion of the unfinished Work from the preceding period and Work to be performed, anticipated problems, and planned resolutions of past or anticipated problems.

#### X. FINAL REPORT

54. Within ninety (90) days after completion of all removal actions required under this Order, the Respondent shall submit for EPA review and approval a Removal Action Report (final report) summarizing the actions taken to comply with this Order. The final report shall consist of an activity summary, a description of any and all deviations from the approved RAWP, and a certification of completion of the removal activities pursuant to the removal action consistent with this Order and plans approved hereunder. The final report shall also include a listing of quantities and types of materials removed, a listing of the ultimate destination of those materials, a presentation of the analytical results of all sampling and analyses performed, and accompanying appendices containing all relevant documentation generated during the response action (e.g. manifests, invoices, bills, contracts, and permits).

55. The final report shall include the following certification signed by a person who supervised or directed the preparation of that report.

"Under penalty of law, I certify that to the best of my knowledge, after appropriate inquiries of all relevant persons

involved in the preparation of the report, the information submitted is true, accurate, and complete."

#### XI. ACCESS TO PROPERTY AND INFORMATION

56. Where Work under this Order is to be performed in areas owned by or in possession of someone other than Midwest Gas, Respondent shall obtain all necessary access agreements within thirty (30) days after the effective date of this 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, at a minimum, a certified letter from Respondent to the present owner of the property, requesting access agreements to permit Respondent and EPA, including its authorized representatives, access to the property to conduct the activities required under this Order. Best efforts also includes payment by Respondent of reasonable amounts of money for access. In Respondent's notification to EPA of it's 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.

#### XII. RECORD RETENTION, DOCUMENTATION, AVAILABILITY OF INFORMATION

57. Respondent shall preserve all documents and information relating to Work performed under this Order, or relating to the hazardous substances found on or released from the Site, for six

years following completion of the removal actions required by this Order. Respondent may preserve such documents, records and information on microfilm. At the end of this six year period and 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 copies of such documents and information to EPA. In addition, Respondent shall provide documents and information retained under this Section at any time before expiration of the six year period at the written request of EPA.

58. 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 it submits to EPA pursuant to this 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

59. All hazardous substances, pollutants or contaminants removed off-site pursuant to this 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 Revised Off-Site Policy, OSWER 42 U.S.C. § 9621(d)(3).

### XIV. COMPLIANCE WITH OTHER LAWS

60. All actions required pursuant to this Order shall be performed in accordance with all applicable local, state, and federal laws and regulations except as provided in CERCLA Section 121(e) and 40 C.F.R. § 300.415(i) of the NCP. In accordance with 40 C.F.R. § 300.415(i), all on-site actions required pursuant to this 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.

### XV. EMERGENCY RESPONSE AND NOTIFICATION OF RELEASES

61. If any incident, or change in Site conditions, during the activities conducted pursuant to this 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 to prevent, abate or minimize such release, or endangerment caused or threatened by the release. Respondent shall also immediately notify the EPA Project Coordinator, or, in the event of his/her unavailability, shall notify the Regional Duty Officer

(e.g., Emergency Planning and Response Branch, EPA Region VII, (913) 551-3778, or the EPA Regional Emergency 24-hour telephone number) of the incident or Site conditions.

62. In addition, in the event of an actual release of a hazardous substance from the Site, Respondent shall immediately notify EPA's Project Coordinator at (913) 551-7489 and the National Response Center at telephone number (800) 424-8802. 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 reoccurrence of such a release.

#### **XVI. AUTHORITY OF THE EPA PROJECT COORDINATOR**

63. The EPA Project Coordinator shall be responsible for overseeing the implementation of this Order. The EPA Project Coordinator shall have the authority vested in a EPA Project Coordinator by the NCP, including the authority to halt, conduct, or direct any Work required by this Order, or to direct any other response action undertaken by EPA or Respondent at the Site. Absence of the EPA Project Coordinator from the Site shall not be cause for stoppage of work unless specifically directed by the EPA Project Coordinator.

#### **XVII. ADDITIONAL WORK**

64. During the course of this response action, EPA may determine that sampling, analysis, reporting, or other tasks in addition to those specifically set forth in the Removal Action Work

Plan or this Order are necessary to satisfy the purposes of this Consent Order. If EPA so determines that, it will advise Respondent in writing of the nature of the additional tasks and the basis for EPA's determination. Respondent shall either: (i) undertake, perform, and complete all such additional tasks in accordance with the standards, specifications, schedules determined or approved by EPA and provide such documents and reports required by EPA in addition to those provided for herein, or (ii) advise EPA in writing within five (5) days of its refusal to undertake the additional tasks and the reasons for such refusal and initiate the Dispute Resolution process set forth in Section XIX of this Order. The time period for initiation of Dispute Resolution pertaining to additional work 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.

**XVIII. REIMBURSEMENT OF COSTS**

65. Respondent agrees to pay EPA's oversight and past response costs for this Site. Post costs will be paid within thirty (30) days of the effective date of the Order.

66. Respondent shall, within thirty (30) days of receipt of each billing (normally, March and September of each year), remit a cashier's or certified check for the amount of those costs made payable to the "Hazardous Substance(s) Superfund," to the following address:

Mellon Bank, EPA Region VII  
Superfund  
FNMG Section  
Post Office Box 360748M  
Pittsburgh, PA 15251

Respondent shall simultaneously transmit a copy of the check to the EPA Project Coordinator, EPA Region VII, 726 Minnesota Ave., Kansas City, Kansas 66101. Payments shall be designated as "Oversight and/or Response Costs - Waterloo Coal Gasification Site" and shall reference the payor's name and address, the EPA site identification number, and the docket number of this Order.

67. Interest at a rate established in 4 C.F.R. § 102.13 shall begin to accrue on the unpaid balance from the day after the expiration of the thirty (30) day period, notwithstanding any dispute or objection to any portion of the costs.

68. Respondent may dispute, in accordance with Section XIX, (Dispute Resolution), all or part of a bill submitted under this Order, if Respondent determines that EPA has made an accounting error, or if Respondent alleges that a cost item that is included represents costs that are inconsistent with the NCP.

69. 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 the full amount of the uncontested costs into the Hazardous Substance Trust Fund as specified in this section, on or before the due date. Within the same time period, Respondent shall pay the full amount of the contested costs into an escrow account established by the Respondent on or before the due date. Within the same time period, Respondent shall simultaneously transmit a copy of the check(s) to the EPA Project Coordinator. Respondent shall ensure that the prevailing party or parties in the dispute shall receive the amount upon which they prevailed from the



escrow funds, plus interest, within ten (10) days after the dispute is resolved.

#### XIX. DISPUTE RESOLUTION

70. If Respondent disagrees, in whole or in part, with any EPA disapproval or other decision or directive made by EPA pursuant to this Order, it shall notify EPA in writing of its objections and the basis therefore within ten (10) days of receipt of EPA's disapproval, decision, or directive. This notice shall set forth the specific points of the dispute, the position Respondent maintains should be adopted as consistent with the requirements of this Order, the factual and legal basis for Respondent's position, and all matters it considers necessary for EPA's determination. EPA and Respondent shall then have fourteen (14) 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 Order. If the parties are unable to reach agreement within this 14-day period, the EPA Superfund Branch Chief will provide a written statement of decision to Respondent, which shall be incorporated into this Order.

71. The existence of a dispute as defined herein and EPA's consideration of such matters as placed in dispute shall not excuse, toll, or suspend any compliance obligation or deadline required pursuant to this Order during the pendency of the dispute resolution process.

72. Notwithstanding any other provision of this Order, no action or decision by EPA pursuant to this Order shall constitute final agency 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 Order.

**XX. FORCE MAJEURE**

73. Respondent agrees to perform all requirements of this Order within the time limits set forth herein, unless the performance is prevented or delayed by events which constitute a force majeure. For the purposes of this Order, a force majeure is defined as any event arising from causes not reasonably foreseeable and beyond Respondent's control, or control of its consultants and contractors, which delays or prevents performance by a date required by this Order, despite Respondent's best efforts to conform to such schedules. Such events do not include unanticipated or increased costs of performance, changed economic circumstances, normal precipitation events, or failure to obtain federal, state, or local permits unless Respondent has sought such permits in a timely and complete manner.

74. Respondent shall immediately notify EPA orally, and shall also notify EPA in writing within five (5) days after it becomes aware of events which Respondent knows or should know constitute a force majeure. Such notice shall include an estimate of the anticipated length of delay, including necessary demobilization and remobilization, a description of the cause of the delay and the measures taken or to be taken to minimize delay, and an estimated timetable for implementation of these

measures. Respondent shall exercise best efforts to avoid or minimize the delay. Failure to comply with the notice provision of this Section shall constitute a waiver of Respondent's right to assert a force majeure.

75. If EPA determines that the delay has been or will be caused by a force majeure, the time for performance for that element of work may be extended, upon EPA approval, for a period equal to the delay resulting from such circumstances. This schedule extension shall be accomplished through written amendment to this Order pursuant to Section XXIX (Modifications). Such an extension does not alter the schedule for performance or completion of other tasks required by the Work Plan unless these are also specifically altered by amendment of the Order. 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, this dispute shall be resolved in accordance with the provisions of Section XIX (Dispute Resolution).

**XXI. DELAY IN PERFORMANCE/STIPULATED PENALTIES**

76. Any delay in performance of this Order that, in EPA's judgment, is not properly justified by Respondent under the terms of this Section shall be considered a violation of this Order. Any delay in performance of this Order shall not affect Respondent's obligations to fully perform all obligations under the terms and conditions of this Order.

77. Respondent shall notify EPA of any delay or anticipated delay in performing any requirement of this Order. Such notification shall be made by telephone to EPA's Project

Coordinator within forty-eight (48) hours after Respondent first knows or should know that a delay might occur. Respondent shall use best efforts to avoid or minimize any such delay. Within five (5) days after notifying EPA by telephone, Respondent shall provide written notification fully describing the nature of the delay, any justification for delay, any reason why Respondent should not be held strictly accountable for failing to comply with any relevant requirement of this Order, the measures planned and taken to minimize the delay, and a schedule for implementing the measures that will be taken to mitigate the effect of the delay. Increased costs associated with implementation of the activities called for in this Order is not a justification for any delay in performance.

78. Unless there has been a written modification of a compliance date by EPA or an excusable delay as defined under Section XX (Force Majeure), in the event Respondent fails to meet any requirement of this Order, Respondent shall pay stipulated penalties as set forth below. Compliance by Respondent shall include completion of an activity under this Order or a plan approved under this Order or any matter under this Order in an acceptable manner to EPA, and within the specified time schedules in and approved under this Order.

a. For failure to submit Removal Action Work Plan called for in Section VII above:

- i. \$1,000 per day for the first through seventh days of noncompliance;
- ii. \$2,500 for the eighth through thirtieth days of noncompliance; and

iii. \$5,000 per day for the thirty-first day and each succeeding day of noncompliance thereafter;  
and

b. For failure to complete the removal action called for in Section VII above, in the time period or the manner required by the EPA approved schedule:

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

ii. \$2,500 for the eighth through thirtieth days of noncompliance; and

iii. \$5,000 per day for the thirty-first day and each succeeding day of noncompliance thereafter;

c. For failure to submit the Final Report called for in Section X above, in the time period or manner required pursuant to this Order:

1. \$500 per day for the first through seventh days of noncompliance;

ii. \$1,250 for the eighth through thirtieth days of noncompliance; and

iii. \$2,500 per day for the thirty-first day and each succeeding day of noncompliance thereafter;

and

d. For failure to submit a progress report called for in Section IX above, in the time period or manner required pursuant to this Order:

1. \$250 per day for the first week of noncompliance;

ii. \$500 for the eighth through 14th day of noncompliance; and

iii. \$1,000 per day for each succeeding day of noncompliance thereafter.

79. All penalties shall begin to accrue on the date that complete performance is due or a violation 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 Order.

80. All penalties owed 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.

81. All penalties shall be paid by certified or cashier's check made payable to the Treasurer of the United States, 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 Order, the Site name, and shall indicate that they are in payment of stipulated penalties. A copy of the

transmittal of payment shall be sent to the EPA Project Coordinator.

82. 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 Order, nor shall payment of said penalties relieve Respondent of the responsibility to comply with this Order.

#### **XXII. RESERVATION OF RIGHTS**

83. 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 other 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.

84. Respondent is hereby 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 this Order may, in addition to an action brought in the appropriate United States District Court to enforce this Order, be fined not more than

\$25,000.00 for each day in which such violation occurs or such failure to comply continues.

85. Respondent is further advised that 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 actions specified in this Order may be liable to the United States for punitive damages in an amount at least 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

86. By issuance of this 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. The United States or EPA shall not be a party or be held out as party to any contract entered into by the Respondent or its directors, officers, employees, agents, successors, representatives, assigns, contractors, or consultants in carrying out activities pursuant to this Order.

87. Nothing in this 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 Order, for any liability such person may have under CERCLA, other statutes, or the common law, including but not limited to any claims of the United States for damages and interest under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a).

88. This Order does not constitute a preauthorization of funds under Section 111(a)(2) of CERCLA, 42 U.S.C. § 9611(a)(2).



The Respondent covenants not to sue, and waives any claim for 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 Order.

89. No action or decision by EPA pursuant to this 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. INDEMNIFICATION

90. 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 activities pursuant to this Order.

91. 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, their officers, directors, employees, agents, contractors, subcontractors, and any persons acting on their behalf or under their control, in carrying out activities pursuant to this Order. The United States shall not be held out as a party to any contract entered into by or on behalf of Respondent, in carrying out activities pursuant to this Order. Neither the

Respondent nor any such contractor shall be considered an agent of the United States.

**XXVII. INSURANCE**

92. At least seven (7) days prior to commencing any on-site work under this Order, Respondent shall demonstrate to EPA that any contractor or subcontractor maintains comprehensive general liability insurance and automobile insurance with limits of one million dollars (\$1,000,000.00) each, combined single limit.

93. If the Respondent demonstrates to EPA that any contractor or subcontractor maintains insurance covering the same risks described above but in a lesser amount, then Respondent need provide only that portion of the insurance described above which is not maintained by such contractor or subcontractors.

**XXVIII. FINANCIAL ASSURANCE**

94. Within thirty (30) days after the effective date of this Order and thereafter until Notice of Completion under Section XXX, Respondent shall demonstrate to EPA that it meets one of the financial assurance mechanisms specified in 40 C.F.R. § 264.143 for the estimated costs of work to be performed by Respondent under this Order.

**XXIX. MODIFICATIONS**

95. This Order may be modified by mutual agreement of Respondent and EPA. Any such amendment shall be in writing and shall be signed by authorized representatives 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

by Respondent. All modifications shall be incorporated into and become a part of this Order.

**XXX. NOTICE OF COMPLETION**

96. When EPA determines, after EPA's review of the Final Report, that all work has been fully performed in accordance with this Order, except for certain continuing obligations required by this Order (e.g., post removal site controls, record retention, etc.), and that all goals and objectives of this Order and the Statement of Work have been satisfied, EPA will provide notice to the Respondent. If EPA determines that any removal activities have not been completed in accordance with this Order, EPA will notify the Respondent, provide a list of the deficiencies, and require that Respondent modify the Work Plan to correct such deficiencies. The Respondent shall implement the modified and approved Work Plan and shall submit a modified Final Report in accordance with the EPA notice. Failure to implement the approved modified Work Plan shall be a violation of this Order.

**XXXI. SEVERABILITY**

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


**XXXII. EFFECTIVE DATE**

98. This 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 the same document. The Order shall become effective upon receipt by Respondent of a fully executed copy of the Order.

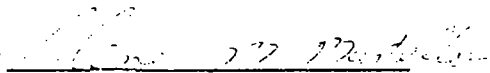
The undersigned representative(s) of Respondent certify(ies) that it (they) is (are) fully authorized to enter into the terms and conditions of this order and to bind the party(ies) it (they) represent(s) to this document.

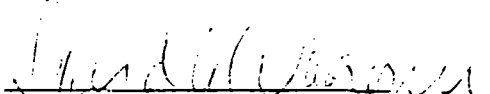
Agreed this 28 day of December, 1993.

BY:   
EDWARD A. DREESMAN  
MANAGER, GAS OPERATIONS ENGINEERING  
MIDWEST GAS, a division of  
MIDWEST POWER SYSTEMS INC.

Title \_\_\_\_\_

It is so ORDERED and Agreed this 29<sup>th</sup> day of December, 1993.

BY:  DATE: 12/28/93  
Ilene M. Martello  
Assistant Regional Counsel  
Region VII  
U.S. Environmental Protection Agency

BY:  DATE: 12/29/93  
Dave Wagner  
Director, Waste Management Division  
Region VII  
U.S. Environmental Protection Agency



ATTACHMENT II

WATERLOO COAL GASIFICATION

Removal Action

**Statement of Work**

- I. The purpose of this Removal Action is to provide for the removal of source materials which have been identified at the site during preliminary investigations and which may present a threat to either human health and/or the environment. Source materials include coal tars, coal tar-impacted soils and other coal tar-impacted materials. For the purpose of this Removal Action "tar-impacted" shall be defined as all visible coal tar contamination based on a Standard Operating Procedure (SOP) for Field Determination of Coal Tar Contamination to be developed by Respondent for EPA review and approval.
  
- II. The Removal Action Work Plan (RAWP) shall describe the proposed tasks and schedules associated with excavation, processing, onsite materials management, onsite treatment, and offsite incineration and/or disposal of source materials. The RAWP shall also describe the proposed tasks and schedules associated with conducting a public and private well survey. The RAWP must provide the following:
  - A. A clear and concise description of roles, relationships and assignment of responsibilities among the Respondent, Project Coordinator, Quality Assurance Officer, Construction Supervisor and Construction Personnel;
  
  - B. Schedules for each phase of the removal action;
  
  - C. Detailed description of site preparation activities, including establishment of security and control, definition of clearing and grubbing limits, establishment of work and support areas, and definition of decontamination areas;
  
  - D. Criteria to define areas to be excavated, including an SOP for Field Determination of Coal Tar Contamination;
  
  - E. Design of an air monitoring program to be used during site excavation, soil processing, and material handling activities;

F. Description of sampling and analytical procedures including visual characterization, field screening and laboratory methods to be conducted on soil samples collected during test trenching activities, excavation activities (including base and sidewall soil samples) and material processing activities;

G. Dewatering contingency plans and fluids management procedures;

H. A detailed description of on-site soil storage and waste processing methods;

I. Description of the methods to be used to control fugitive dust;

J. Description of equipment and structure decontamination procedures;

K. Identification of the method of transportation for all contaminated materials, manifesting requirements in accordance with federal and state Department of Transportation (DOT) regulations, and material quantity accounting procedures. In addition, the Respondents shall provide written notice prior to any out-of-state shipment of waste material;

L. A detailed description of the samples and quality assurance/quality control (QA/QC) measures to be taken during the incineration of the materials to ensure their destruction to required permit conditions;

M. Interim site restoration requirements;

N. A plan for identifying and complying with applicable permitting requirements and environmental statutes;

O. A plan for identifying public and private wells within the vicinity of the Site.

III. The Removal Action shall be conducted in accordance with the RAWP and shall include the following:

A. Test trenching and sampling must be conducted as part of the program to identify and remove coal tar and coal tar-impacted materials (soils and other materials). The objective of completing these test trenches will be:

1. to accurately identify the location of the relief holder(s), brick drip pit, and other tanks or

structures which may contain coal tar or coal tar-impacted materials;

2. to locate coal tar and coal tar-impacted soils in the vicinity of the relief holder(s), the storage tanks, and the former handling area;

3. to remove (excavate) coal tar and coal tar-impacted materials; and

4. to obtain contaminant concentration data for materials not removed during the Removal Action and data which can be incorporated into the scoping of future investigations, development of the Risk Assessment and the evaluation of response action alternatives.

B. The horizontal and vertical extent of coal tar contamination, and coal tar-impacted materials shall be determined by sampling and observation of soils collected from excavation trenches within the shaded areas illustrated on Attachment II-A.

1. Area 1: Area 1 contained several oil tanks/relief holder tanks and the "breeze area". At least three sets of tanks, aligned in an east-west pattern, have been identified on plant drawings and/or during previous site investigations adjacent and south of the former electric plant foundation. The base of one of the structures was identified at 14 feet below ground surface during the advancement of boring MWG-B11. In addition, Area 1 contained a brick drip pit. At a minimum the following tasks must be conducted:

a. At a minimum, three exploratory trenches must be excavated to assess the presence of coal tars and coal tar-impacted materials and to preliminarily delineate the extent of identified contamination. One primary trench per tank set (minimum of three primary trenches) must be excavated. The trenches shall be aligned in an east-southeast to west-northwest orientation parallel to the orientation of the former tank sets. The primary trench shall be aligned approximately along the centerline of each tank set.

b. If either of the three trenches described in item above disclose contamination based on visual characterization of soil samples, the



trench must be extended in the direction of visible contamination until the extent of visible contamination has been determined.

c. If contamination is identified during trenching activities at any of the tank sets as described in items a. and b. above, an additional secondary trench will be required at that tank set (maximum of three secondary trenches). The secondary trenches shall be located perpendicular to the primary trench at the most highly contaminated area at each tank set as determined by visual observation. The length of the secondary trench shall be at least two times the diameter of the largest tank in each tank set or until no visible contamination is identified, whichever is greater.

d. The location of the drip pit structure and associated potential contamination shall be evaluated. At minimum, one trench shall be excavated along the centerline of the drip pit structure.

e. All visibly contaminated soils identified during the trenching activity must be excavated.

2. Area 2: In Area 2, the area impacted by coal tar handling and disposal, trenching is needed to delineate the extent of potential coal tars and coal tar-impacted materials to facilitate removal. At a minimum the following tasks must be conducted:

a. The outer perimeter of the tar separator structure shall be located, as accurately as possible, based on existing analytical data, plant drawings and exploratory trenching. At a minimum, two exploratory trenches shall be excavated on radials of a polar coordinate system originating at the center of the structure to assess the presence and extent of coal tars and coal tar-impacted soil. The trenches shall extend to a depth beyond the base of the structure and identified tar wastes as indicated by existing boring MWG-B10.

b. If either of the two trenches described in item a. above disclose contamination based on visual characterization of soil samples, the trench shall be extended in the direction of

visible contamination until the extent of visible contamination has been determined.

c. All visibly contaminated soils identified during the trenching activity must be excavated.

3. Area 3: In Area 3, the area impacted by tar handling activities, trenching is necessary to characterize the extent of contamination and to evaluate potential waste handling and disposal areas. At a minimum, the following tasks shall be conducted:

a. One trench shall be installed to assess the presence of coal tars and coal tar-impacted soils in the vicinity of the former tar storage structure. The location of the former tar storage structure shall be determined and evaluated during trenching activities.

b. If the trench described in item a. above discloses contamination based on visual characterization of soil samples, the trench shall be extended in the direction of visible contamination until the extent of visible contamination is determined.

c. All visibly contaminated soils identified during the trenching activity must be excavated.

4. Area 4: In Area 4, which contained two relief holder tanks at the southeast corner of the site, investigative trenching is necessary to assess potential contamination and must include the following:

a. At a minimum, two exploratory trenches must be excavated at each of the tank structures or tank foundations. The trenches shall be oriented on radials of a polar coordinate system originating at the center of the structures to assess the presence and extent of coal tars and coal tar-impacted soil.

b. If the trenches described in item a. above disclose contamination based on visual characterization of soil samples, the trenches must be extended in the direction of visible contamination until the extent of visible contamination has been determined.

c. All visibly contaminated soils identified during the trenching activity must be excavated.

5. Based on the results of the trenching activities described in items III(B)(1), (2), (3), and (4), it may be necessary to conduct additional trenching activities to delineate source coal tars or coal tar-impacted soils and structures.

C. The soil removal and other cleanup techniques must minimize the release of contaminants via airborne emissions and surface runoff. Chemical dust suppressants and/or water shall be used during site activities to minimize generation of airborne emissions. Respondents must monitor the ambient air during excavation and soil processing activities. Ambient air monitored during excavation and removal shall meet National Primary and Secondary Ambient Air Quality Standards and/or levels protective of human health as determined by EPA.

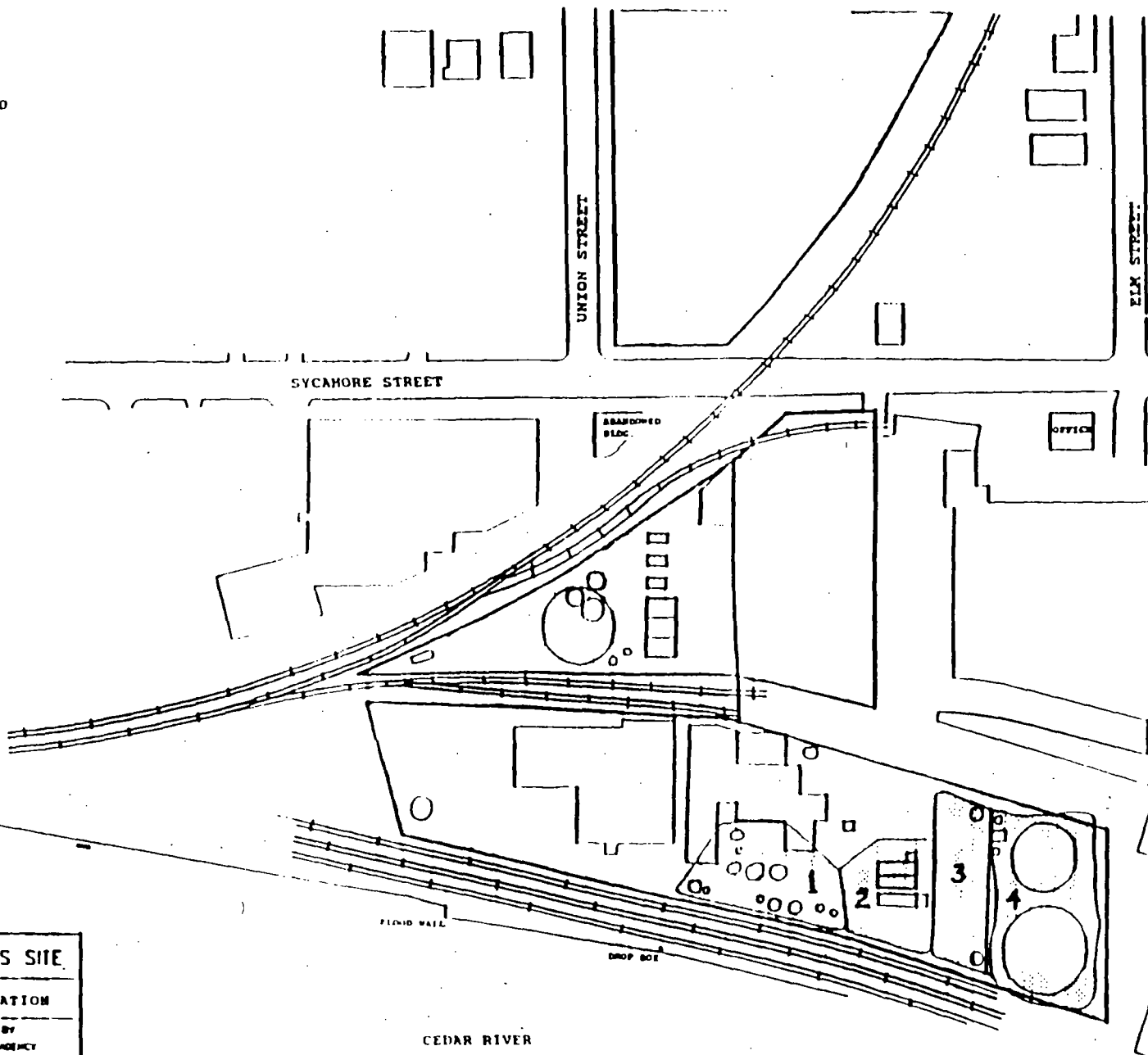
D. The base and sidewalls of areas requiring no additional excavation, as determined by the Visual Determination SOP, shall be sampled and analyzed to obtain contaminant concentration data. The list of analytes will include, but is not limited to, carcinogenic PAHs, non-carcinogenic PAHs, and BTEX.

E. If on-site storage of contaminated materials is necessary at any time during the removal activity, such material must be stored in such a manner as to prevent migration of contaminants.

F. After excavation and prior to off site disposal, Respondents must sample and analyze all excavated material pursuant to 40 C.F.R. § 261.24 using Toxicity Characteristic Leaching Procedure (TCLP). All RCRA hazardous waste taken off-site shall comply with all RCRA transportation and storage standards.

G. The hazardous waste treatment, storage, and disposal regulations under RCRA are applicable to wastes at and transported from this site where coal tar wastes exhibit the toxicity characteristic as set forth in 40 C.F.R. § 261.24. All excavated coal tar wastes which, when tested by the TCLP procedure, exceed regulatory limits for TC constituents shall be incinerated at a RCRA-permitted incineration facility in accordance with all applicable RCRA regulations as defined in 40 C.F.R. Part 264 Subpart O.

H. Excavated coal tar wastes transported from this site which do not contain TC constituents exceeding regulatory limits shall be incinerated at a facility subject to EPA approval or subjected to other treatment processes as approved by EPA.



**WATERLOO COAL GAS SITE**

**AREAS OF INVESTIGATION**

DRIVING RECORD PROVIDED BY  
 US ENVIRONMENTAL PROTECTION AGENCY  
 REGION 10  
 CONTRACTING SERVICES CENTER  
 12 PLANTER RD, BIRMINGHAM, ALA. 35204-00110

CEDAR RIVER

ALCOA 11-A

ATTACHMENT III

GUIDANCE DOCUMENTS FOR PRP ACTIVITIES

"National Oil and Hazardous Substances Contingency Plan: Final Rule", Vol. 55. No. 46 Fed. Reg. 8666, March 8, 1990.

"RCRA Groundwater Monitoring Technical Enforcement Guidance Document", OSWER-9950.1, September 1986.

"Practical Guide for Groundwater Sampling", EPA/600/2-85/104, September 1985.

"Compendium of ERT Groundwater Sampling Procedures", EPA/540/P-91/007, January 1991.

"Handbook of Suggested Practices for the Design and Installation of Ground-Water Monitoring Wells", EPA/600/4-89/034, March 1991.

"Test Methods for Evaluating Solid Waste: Physical/Chemical Methods" Third Edition, OSW:SW-846.

"Compendium of ERT Waste Sampling Procedures", EPA/540/P-91/008, January 1991.

"Compendium of ERT Surface Water and Sediment Sampling Procedures", EPA/540/P-91/005, January 1991.

"Compendium of ERT Air Sampling Procedures", EPA, OSWER Directive 9360.4-05, May 1991.

"Compendium of ERT Toxicity Testing Procedures", EPA, OSWER Directive 9360.4-08, January 1991.

"Removal Program Representative Sampling Guidance - Volume 1: Soil", OSWER Directive 9360.4-10, November 1991.

"Characterization of Hazardous Waste Sites - A Methods Manual: Volume I - Site Investigations", EPA/600/4-84/075, April 1985

"Characterization of Hazardous Waste Sites - A Methods Manual: Volume II - Available Sampling Methods", EPA/600/4-83/040, September 1983.

"Risk Assessment Guidance for Superfund - Volume I - Human Health Evaluation Manual (Parts A&B), Interim Final", EPA/540/1-89/002, December 1989.

"Risk Assessment Guidance for Superfund - Volume II - Environmental Evaluation Manual, Interim Final", EPA/540/1-89/001, March 1989.

"Guidelines and Specifications for Preparing Quality Assurance Project Plans", EPA QAMS - 004-80, December 29, 1980.

"Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans", EPA QAMS - 005/80, December 1980.

"Guidance for Preparation of Combined Work/Quality Assurance Project Plans for Environmental Monitoring, EPA OWRS QA-1, May 1984.

"Quality Assurance/Quality Control Guidance for Removal Activities - Sampling QA/QC Plan and Data Validation Procedures, Interim Final", EPA/540/G-90/004, April 1990.

"Health and Safety Requirements of Employees Employed in Field Activities", EPA Order No. 1440.2, July 12, 1981.

"Standard Operating Safety Guides", Office of Solid Waste and Emergency Response, November 1984.

"Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities", NIOSH/OSHA/USCG/EPA, October 1985.

"Compendium of Superfund Field Operations Methods", Two Volumes, EPA/540/P-87/001a, August 1987.

"User's Guide to EPA Contract Laboratory Program", EPA Sample Management Office, August, 1982.

"Contract Laboratory Program (CLP) Users Guide", EPA, 1988.

"Toxicity Characteristic", Final Rule, EPA/OSW-FR-89-026.