UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

May 9, 2011

4-RCRA

EXPRESS MAIL WITH CERTIFIED
RETURN RECEIPT REQUESTED

Mr. Rodney S. Bolton
Ashland Hercules Water Technologies
5228 North Hopkins Street
Milwaukee, Wisconsin 53209

SUBJ: Hercules, Inc.
Hattiesburg, Mississippi
EPA ID MSD 008 182 081
Administrative Order under Section 3013(a) of RCRA
Docket No.: RCRA-04-2011-4251

Dear Mr. Bolton:

Enclosed is an Administrative Order (Order) issued to Hercules, Inc. (Hercules), located in Hattiesburg, Mississippi, by the United States Environmental Protection Agency, Region 4. This Order is issued pursuant to Section 3013(a) of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. § 6934(a).

EPA has determined that the presence and/or release of hazardous waste, as defined in Section 1004(5) of RCRA, 42 U.S.C. § 6903(5), at the Hercules Hattiesburg facility may present a substantial hazard to human health or the environment. This determination is detailed in the enclosed Order. The Order requires that Hercules conduct monitoring, testing, analysis, and reporting to ascertain the nature and extent of such hazard by conducting the work described in Section V of the Order.

Compliance with the Order is required. Violation of the Order, or the failure or refusal to comply with any requirements of the Order, may result in EPA seeking enforcement of the Order in the U.S. District Court for the Southern District of Mississippi. In such action, and pursuant to Section 3013(e) of RCRA, 42 U.S.C. § 6934(e), EPA would request that the Court enforce compliance with the Order and assess a civil penalty of up to $7,500 for each day during which such violation occurred, or is occurring, and for each day where there was, or is, a failure to comply.

The Order becomes effective ten (10) calendar days after the date of issuance, i.e., the date on which it is signed by the RCRA Division Director, and requires the submittal of a written Phase I Work Plan, as described in Section V of the Order, within 30 calendar days of issuance of the Order. Section XXIII of the Order provides Hercules with the opportunity to confer with EPA concerning the written proposals required under Section V of the Order. If Hercules desires a conference, a Hercules representative must

contact Colleen E. Michuda, Associate Regional Counsel, at the physical address or email address provided in Section XXIII of the Order, or by calling her at (404)562-9685, no later than 60 calendar days after the issuance of the Order. The scheduling of such a conference does not postpone or delay the effective date of the Order or any of the dates specified in the Order.

If you have any questions or comments, please contact Colleen E. Michuda, Associate Regional Counsel, at (404)562-9685.

Sincerely yours,

G. Alan Farmer
Director
RCRA Division

Enclosure

cc: Chris Sanders, MDEQ-ECED
Jerry B. Banks, MDEQ - GARD

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
61 Forsyth Street
Atlanta, Georgia 30303

IN THE MATTER OF:	) Docket Number: RCRA-04-2011-4251
	)
Hercules, Inc.	) Proceeding under Section 3013(a)
613 W. 7th Street	) of the Resource Conservation and
Hattiesburg, Mississippi 39401	) Recovery Act, as amended,
	) 42 U.S.C. § 6934(a)
	)
EPA I.D. No: MSD008182081	)
	)
Respondent	)

FINAL
RCRA SECTION 3013(a) ORDER REQUIRING MONITORING, TESTING, ANALYSIS, AND REPORTING

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RCRA SECTION 3013(a) ORDER REQUIRING MONITORING, TESTING, ANALYSIS AND REPORTING

I. JURISDICTION

1. This Administrative Order (Order) is issued pursuant to the authority vested in the Administrator of the Environmental Protection Agency (EPA or the Agency) by Section 3013(a) of the Resource Conservation and Recovery Act (RCRA or the Act), as amended, 42 U.S.C. § 6934(a). The Administrator has delegated this authority to the Regional Administrator of EPA, Region 4, who has in turn delegated this authority to the RCRA Division Director (Director), who is the Complainant and hereby issues this Order.

2. This Order is issued to Hercules, Inc. (Hercules or Respondent), a company organized under the laws of the State of Delaware doing business in Hattiesburg, Mississippi. Respondent is the owner/operator of the Hercules, Inc. facility (Facility or Site), located at 613 W. 7th Street, Hattiesburg, Forrest County, Mississippi.

3. The Director has been presented with information from which a determination has been made that the presence and/or release of hazardous wastes, as defined in Section 1004(5) of RCRA, 42 U.S.C. § 6903(5), at the Facility may present a substantial hazard to human health or the environment, and hereby orders Respondent to conduct monitoring, testing, analysis, and reporting to ascertain the nature and extent of such hazard.

4. This Order is based upon the administrative record compiled by EPA and incorporated herein by reference. The record is available for review by Respondent and the public at EPA's Regional Office at 61 Forsyth Street, S.W., in Atlanta, Georgia 30303, and at the Library of Hattiesburg-Petal-Forrest County, located at 329 Hardy Street, Hattiesburg, Mississippi 39401. The index to the administrative record for this Order is attached as Exhibit 1.

5. On June 27, 1984, EPA granted Mississippi authorization to operate a hazardous waste program in lieu of the federal hazardous waste program pursuant to Section 3006(b) of RCRA, 42 U.S.C. § 6926(b). Under RCRA, whether a State has been authorized to operate a hazardous waste program, EPA retains its authority under Section 3013(a) of the Act.

II. PARTIES BOUND

6. The provisions of this Order shall apply to and be binding upon Respondent and its officers, directors, employees, agents, contractors, successors, and assigns.

7. No change in ownership, corporate, or partnership status relating to the Facility described in this Order will in any way alter the status or responsibility of Respondent under this Order. Any conveyance by Respondent of title, easement, or other interest in the Facility described herein, or a portion of such interest, shall not affect Respondent's obligations under this Order. Respondent shall be responsible and liable for any failure to carry out all activities

required of Respondent by this Order, irrespective of its use of employees, agents, contractors, or consultants to perform any such tasks.

8. Respondent shall provide a copy of this Order to all contractors, subcontractors, laboratories, and consultants retained to conduct or monitor any portion of the work performed pursuant to this Order within seven (7) calendar days of the effective date of this Order, or on the date of such retention, and Respondent shall condition all such contracts on compliance with the terms of this Order.

9. Any documents transferring ownership and/or operations of the Facility from Respondent to a successor-in-interest shall include written notice of this Order. In addition, Respondent shall, no less than thirty (30) calendar days prior to transfer of ownership or operation of the Facility, provide written notice of this Order to its successor-in-interest, and written notice of said transfer of ownership and/or operation to EPA.

III. FINDINGS OF FACT

Ownership, Location, and Operational History

10. Respondent's Facility is approximately 168 acres in size and is located in the city of Hattiesburg, Mississippi in the northern portion of Forrest County. It is surrounded by both residential and industrial areas, as well as the Roseland Park Cemetery, located to the southwest. Several residences abut the northwestern, southern, and eastern boundaries of the Facility. The Facility consists of, but is not limited to, production areas, warehouses, offices, laboratories, a wastewater treatment system, an industrial landfill, and a sludge pit disposal area located within the northwestern portion of the Facility referred to as the "Back Forty." Maps showing the Facility location and features are attached as Exhibits 2 and 3.

11. The Facility began operations in 1923 and has produced over 250 products during its decades of operation. By 2009, the Facility had ceased all manufacturing operations. Some of the products produced at the Facility were modified resins, polyamides, ketene dimmer, crude tall oil wax emulsions, synthetic rubber, and Delnav, an agricultural pesticide. Processes included wood grinding, shredding extraction, fractionation, refining, distillation, and processing of rosin from pine tree stumps.

12. During its manufacturing operations, process wastes from the Facility consisted of heavy metals (iron, manganese, magnesium, zinc, cadmium, copper, chromium), pesticides, halogenated aliphatics, resins, elastomers, solvents, oil sludges, esters and ethers, alcohols, ketones and aldehydes, salts, and mercaptans.

13. The Facility also operated a wastewater treatment system which collected water from all process areas of the plant. The former wastewater treatment system included an impoundment basin (IB), a dissolved air flotation (DAF) unit, and activated carbon filtration units. When the Facility was in operation, all process wastewater generated at the Facility was discharged to the IB for pH adjustment and sedimentation. From the IB, the wastewater was treated for oil and

grease removal at the DAF units, followed by activated carbon filtration. As with the rest of the Facility, the wastewater treatment system ceased operations in 2009.

14. The IB is located in the eastern portion of the plant near Providence Street. The basin is approximately 250 feet by 70 feet, and was excavated into native clays to a depth of approximately ten (10) feet with no bottom liner. Its sides were lined with boards, diked, and bordered to the south by a runoff collection ditch. As of 1980, sludge accumulation in this impoundment was approximately eight (8) cubic yards per day.

15. During the operation of the IB, sludge build-up within the IB would require periodic removal to ensure the proper operation of the basin.

16. For several decades, Hercules disposed of the removed sludge in unlined disposal pits, referred to as "sludge pits," within the Back Forty.

17. The oil and grease removed in the wastewater treatment system's DAF units were burned in the Facility's boiler. Boiler ash was then disposed in an on-site industrial landfill, as well as in the Back Forty.

18. The former industrial landfill is located directly to the north of the old Delnav production area and to the east of the Back Forty. In addition to boiler ash, Hercules disposed of various other wastes in the industrial landfill.

19. Neither the IB, sludge pits, nor industrial landfill are believed to have impermeable liners or leachate collection systems.

20. Green's Creek runs through the Facility, adjacent to the Back Forty, and flows in an easterly/northeasterly direction before it intersects the Bouie River approximately 2,800 stream feet from the Facility. The Bouie River then flows in a southeasterly direction for 9,600 stream feet before entering the Leaf River.

21. Groundwater at the Facility is shallow and ranges in depth from five (5) to twenty-two (22) feet below ground surface.

22. On December 10, 2007, Hercules executed a Notice of Land Use Restrictions for the Facility. In the document, Hercules indicates the presence of several constituents above the Mississippi Department of Environmental Quality's (MDEQ's) Tier 1 Target Remediation Goals (TRGs), which are health-based media concentrations, in the soil and groundwater. Specifically, the document cites the following constituents as being present at the Facility:

a. Benzene [Chemical Abstract Service Number (CAS #) 71432]
b. Chlorobenzene (CAS # 108907)
c. Carbon Tetrachloride (CAS # 56235)

d. Chloroform (CAS # 67663)
e. 1-2 Dichloroethane (CAS # 107062)
f. Toluene (CAS # 105553)

Regulatory/Sampling History

23. In 1980, Hercules filed a Notification of Hazardous Waste Activity and a Part A permit application with EPA for the on-site generation, treatment, and storage of spent sulfuric acid from its rosin polymerization operation. The Facility was assigned the EPA Identification Number MSD008182081.

24. In 1983, the Mississippi Bureau of Pollution Control (MBPC), a predecessor agency to MDEQ, determined that the spent sulfuric acid was not a hazardous waste because it was being reused in the wastewater treatment system for elementary neutralization. As a result of this determination, interim status for storage and treatment of spent sulfuric acid in tanks and a surface impoundment was not required and Hercules reverted to the status of an occasional generator.

25. In 1989, the MBPC prepared a Preliminary Assessment Reassessment (PAR) Report for the Facility. According to this PAR Report, site visits in both 1979 and 1981 by MBPC revealed that containment of the wastes at the Facility was thought to be unsound. The on-site industrial landfill was not adequately covered in 1979, and ponding and unsound diking was observed at a sludge disposal pit in 1981. The Report recommended a site screening investigation.

26. On April 29, 1993, EPA completed a Site Inspection Report of the Facility. This Report identified the following two source areas of concern on the Hercules property: (a) 37.7 acres of contaminated soil; and (b) 895,600 cubic feet of surface impoundments. Cadmium, cobalt, lead, mercury, toluene, methyl ethyl ketone (MEK), benzene, polychlorinated biphenyls (PCBs), and acetone were found in the soils at the Facility, and arsenic, heavy metals, toluene, MEK, and benzene were found in the IB. The Report concluded that the groundwater pathway was of concern given the presence of drinking water wells in the area, and that the surface water pathway was also of concern given that releases were observed in Green's Creek, and given the presence of endangered or threatened species, plus recreational fishing and swimming, in nearby surface waters. Finally, the soil and air pathways were also a concern in light of the large population surrounding the Facility and the endangered and threatened species in the area.

27. By 1997, at the request of MDEQ, Hercules had begun implementing an on-site groundwater monitoring and site assessment program at the Facility, which included the installation of six (6) on-site groundwater monitoring wells. By August 2005, Hercules had installed and begun sampling thirteen (13) additional on-site groundwater monitoring wells at the Facility. Results of various sampling and analysis events indicated the presence of hazardous constituents in on-site groundwater above the Maximum Contaminant Levels (MCLs) and the MDEQ Tier 1 groundwater TRGs. These hazardous constituents include, but are not limited to, benzene, carbon tetrachloride, chloroform, methylene chloride, and 1,2-dichloroethane.

28. On August 11, 1999, EPA conducted a Multi-Media Compliance Evaluation Inspection of the Facility. The sludge pit disposal area, as well as the presence of dioxathion in groundwater, were identified as concerns as a result of the inspection.

29. From April 1999 through November 2003, Hercules conducted several site investigations at its Facility, which are summarized in the following documents: "Interim Groundwater Monitoring Report" (January 2003); "Hercules Site Investigation Report" (April 2003); and the "Supplemental Site Investigation Report" (November 2003). These reports indicated the presence of several hazardous constituents in groundwater above the MCLs and the MDEQ Tier 1 groundwater TRGs. These contaminants include, but are not limited to, benzene, bromodichloromethane, carbon tetrachloride, chloroethane, chloroform, 1,1-dichloroethene, 1,2-dibromo-3-chloropropane, 1,2-dichloroethane, 1,2-dichloropropane, hexachlorobutadiene, and toluene. In January 2005, Hercules submitted a Corrective Action Plan (revision 1) to MDEQ, which recommended institutional controls, including deed restrictions, and monitored natural attenuation to address the contamination at the Facility.

30. In July, September, and October 2008, Hercules took samples of sludge within the IB at the request of MDEQ. Results from six (6) of these samples revealed benzene levels in excess of the 0.5 mg/L Toxicity Characteristic Leaching Procedure (TCLP) limit for benzene, showing that the sludge was characteristically hazardous. Benzene which is characteristically hazardous carries a hazardous waste code of D018.

31. On November 20, 2008, MDEQ issued a Notice of Violation (NOV) to Hercules identifying several violations of the Mississippi Hazardous Waste Management Regulations, including illegal treatment, storage, and disposal of hazardous waste; violations of technical requirements for the IB (including the absence of liners and insufficient groundwater monitoring); failure to have a closure and post-closure plan, along with the required financial assurance; and violations of land disposal restrictions.

32. In September 2009, pursuant to a request by MDEQ to assess groundwater conditions in the vicinity of the IB, Hercules installed and sampled five (5) permanent groundwater monitoring wells surrounding the IB. According to Hercules' "Groundwater Assessment Report of the Former IB Basin" (November 2009), results of the sampling and analysis indicated that benzene, chlorobenzene, chloroform, methylene chloride, and toluene were detected above the MCLs and MDEQ Tier 1 groundwater TRGs in three (3) of the wells.

33. In September 2010, during a joint Case Development Investigation/Evaluation (CDIE) with MDEQ, EPA collected twelve (12) samples from the sludge pits within the Back Forty. EPA analyzed the samples for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metals. The results were compared to MDEQ's Tier 1 TRGs for residential soils and EPA's Regional Screening Levels (RSLs). Several of the samples exceeded, either the TRGs or RSLs, established for benzene, ethyl benzene, isopropyl benzene, toluene, naphthalene, 1,1-biphenyl, arsenic, and chromium VI. Furthermore, six (6) of the samples exceeded the TCLP limit for benzene.

34. MDEQ's TRGs are risk-based media concentrations used in the Tier 1 evaluation of human health and environmental impacts.

35. EPA's RSLs are risk-based concentrations derived from standardized equations combining exposure information assumptions with EPA toxicity data. RSLs are used to determine if further action or investigation is warranted.

36. By November 2010, Hercules was sampling twenty-three (23) on-site wells as part of a semi-annual groundwater monitoring program. In its February 2011 Semi-Annual Monitoring Report, Hercules submitted a summary of the groundwater data collected since August 2005. The results included in the report indicated that Hercules had detected several hazardous constituents in the groundwater at levels above the MCLs, Maximum Contaminant Level Goals (MCLGs), and MDEQ's Tier 1 groundwater TRGs. Many of these results were from wells in close proximity to the eastern boundary of the Hercules property. At a minimum, the following hazardous constituents exceeded the above-mentioned levels: benzene, chlorobenzene, carbon tetrachloride, chloroform, toluene, methylene chloride, and 1,2-dichloroethane. A map of groundwater monitoring well locations is attached as Exhibit 4.

37. Based on Hercules' semi-annual groundwater monitoring reports, groundwater samples from monitoring well numbers 8, 13, 17, 19, 21, 22, and 23 have exceeded the TCLP limit for benzene, indicating that the groundwater contains waste that is characteristically hazardous for benzene (D018).

38. Based on Hercules' semi-annual groundwater monitoring reports, groundwater samples from monitoring well numbers 8, 13, and 17 have exceeded the TCLP limit for carbon tetrachloride, indicating that the groundwater contains waste that is characteristically hazardous for carbon tetrachloride (D019).

39. Based on Hercules' semi-annual groundwater monitoring reports, groundwater samples from monitoring well number 17 have exceeded the TCLP limit for chloroform, indicating that the groundwater contains waste that is characteristically hazardous for chloroform (D022).

40. On May 10, 2010, Hercules sampled monitoring well number 23, which is approximately fifteen (15) feet from the Providence Street sewer line, and detected benzene, chlorobenzene, carbon tetrachloride, chloroform, methylene chloride, and toluene at the following concentrations:

Constituent	MW-23 Groundwater (μg/L)	MDEQ Tier 1 TRG (μg/L)
Benzene	**10,000**	5
Chlorobenzene	**180**	100
Carbon Tetrachloride	**<100**	5
Chloroform	**2,000**	0.155

Methylene Chloride	**<500**	5
Toluene	**3,300**	1,000

41. On October 1, 2010, MDEQ collected wastewater samples from the sewer line that runs under Providence Street on the eastern side of the Hercules Facility and continues to the Publicly Owned Treatment Works (POTW). Sample A370 was collected at a manhole up-gradient of Hercules' monitoring well number 23, and sample A372 was collected at a manhole down-gradient from Hercules' monitoring well number 23. This sampling revealed the following concentrations within the sewer line:

Constituent	October 1, 2010		MDEQ Tier 1 TRG (µg/L)
	A 370 Wastewater (µg/L)	A 372 Wastewater (µg/L)	
Benzene	<MQL	**19.4**	5
Chlorobenzene	<MQL	<MQL	100
Carbon Tetrachloride	<MQL	**45.8**	5
Chloroform	<MQL	**32.4**	0.155
Methylene Chloride	<MQL	<MQL	5
Toluene	<MQL	13.9	1,000

42. There appear to be no lines entering the sewer system between sample locations A370 and A372. Therefore, these results indicate that contaminated groundwater could be leaving the Hercules Facility and potentially infiltrating the City of Hattiesburg's sewer line.

43. In its hazardous waste activity notifications submitted to EPA and/or MDEQ since 1980, Hercules has reported that it has managed wastes with the following hazardous waste codes at its Facility: D001 through D011, D018, D019, D021, D022, D023, D027 through D030, D035, D036, D039, D040, D043, F003, F005, U012, U019, U044, U125, U159 and U239.

44. Wastes found at the Site include wastes that are characteristically hazardous for benzene (D018), carbon tetrachloride (D019), and chloroform (D022).

45. The following hazardous constituents, as listed in 40 C.F.R. Part 261, Appendix VIII, and/or 40 C.F.R. Part 264, Appendix IX, have been found at the Site: arsenic, benzene, cadmium, carbon tetrachloride, chlorobenzene, chloroethane, chloroform, chromium, cobalt, 1,2-dibromo-3-chloropropane, 1,2-dichloroethane, 1,1-dichloroethene, 1,2-dichloropropane, ethyl benzene, hexachlorobutadiene, lead, mercury, methylene chloride, MEK, naphthalene, PCBs, and toluene.

Effects on Human Health or the Environment:

46. The hazardous wastes and/or hazardous constituents that have been identified at the Facility may pose a substantial hazard to human health or the environment. These hazardous wastes and/or constituents include, but are not limited to, the following:

47. Arsenic is a metal and a known carcinogen that should be handled with extreme caution. Exposure can affect the skin, bladder, and lungs. Dermal contact can cause local irritation and dermatitis. The MCL for arsenic is 10 μg/L. The MDEQ's Tier 1 groundwater TRG for arsenic is 50 μg/L. The MDEQ Tier 1 TRG for arsenic in soil for unrestricted use is 426 μg/kg.

48. Benzene is a VOC and a known mutagen and carcinogen. Acute exposure can affect the central nervous system, cause dizziness, headache, vomiting, visual disturbances, staggering gate, hilarity, fatigue, loss of consciousness, and respiratory arrest. Chronic exposure can cause hematological changes, including leukemia. The MCL and MDEQ Tier 1 groundwater TRG for benzene are 5 μg/L. The MDEQ's Tier 1 TRG for benzene in soil for unrestricted use is 887 μg/kg.

49. Carbon tetrachloride (tetrachloro-methane) is a halogenated organic compound. Acute exposure can cause loss of consciousness, dizziness, vertigo, headache, depression, mental confusion, incoordination, nausea, vomiting, abdominal pain, diarrhea, and liver and kidney damage. Chronic exposure can cause liver and kidney damage, dermatitis, and pulmonary edema. Carbon tetrachloride is potentially carcinogenic in humans and has been determined to be carcinogenic in animals. The MCL and MDEQ Tier 1 groundwater TRG for carbon tetrachloride are 5 μg/L. The MDEQ's Tier 1 TRG for carbon tetrachloride in soil for unrestricted use is 371 μg/kg.

50. Chlorobenzene is an aromatic organic compound. Acute exposure can cause irritation of the eyes and nose, drowsiness, and incoordination. Chronic exposure can cause neurotoxicity, including numbness, cyanosis (depression of the respiratory center), hyperesthesia, muscle spasms, and liver and kidney damage. Chlorobenzene is known to bioaccumulate. The MCL and MDEQ Tier 1 groundwater TRG for chlorobenzene are 100 μg/L. The MDEQ's Tier 1 TRG for chlorobenzene in soil is 1,190 μg/kg.

51. Chloroform (trichloro-methane) is an organic compound. Exposure can cause dizziness, mental dullness, nausea, disorientation, headache, fatigue, anesthesia, and hepatomegaly. Chloroform is a potential carcinogen causing liver and kidney tumors. The MCLG for chloroform is 70 μg/L. The MDEQ Tier 1 groundwater TRG for chloroform is 0.155 μg/L. The MDEQ's Tier 1 TRG for chloroform in soil for unrestricted use is 312 μg/kg.

52. Chromium VI compounds are metals that are considered carcinogens. In workers, inhalation of chromium VI has been shown to cause lung cancer. Chromium VI also causes lung cancer in animals. An increase in stomach tumors was observed in humans and animals exposed to chromium VI in drinking water. The MCL for total chromium is 100 μg/L. The MDEQ

Tier 1 groundwater TRG for chromium VI is 100 μg/L. The MDEQ's Tier 1 TRG for chromium VI in soil for unrestricted use is 227 mg/kg.

53. 1,2-Dichloroethane, also called ethylene dichloride, is a manufactured chemical that is not found naturally in the environment. Exposure can affect the liver and the urinary system or kidneys. This compound is reasonably anticipated to be a human carcinogen. The MCL and MDEQ Tier 1 groundwater TRG for 1,2-dichloroethane are 5 μg/L. The MDEQ's Tier 1 TRG for 1,2-dichloroethane in soil for unrestricted use is 406 μg/kg.

54. Ethyl benzene is a VOC that is an eye irritant; at high concentrations, it causes narcosis. Ethyl benzene also causes liver and kidney damage and has embryotoxic and teratogenic effects. The MCL and MDEQ Tier 1 groundwater TRG for ethyl benzene are 700 μg/L. The MDEQ's Tier 1 TRG for ethyl benzene in soil for unrestricted use is 395 mg/kg.

55. Methylene chloride (chloromethane) is an organic compound. Exposure pathways include inhalation, ingestion and dermal absorption. Exposure to low concentrations can cause dizziness, incoordination, loss of balance, unconsciousness, and decreased performance in tests of sensory and motor functions. Chronic exposures and exposures to high concentrations can cause death, systemic, immunological, reproductive, developmental, genotoxic and carcinogenic effects. Exposure to high concentrations can cause narcosis and respiratory depression resulting in death. Inhalation can cause asthma, chronic bronchitis, headache, dizziness, drowsiness, unconsciousness, convulsions, and death. It can damage the liver and kidneys and can interfere with brain function. Methylene chloride is highly flammable and a dangerous fire hazard. The MCL and MDEQ Tier 1 groundwater TRG for methylene chloride are 5 μg/L. The MDEQ's Tier 1 TRG for methylene chloride in soil for unrestricted use is 14.3 mg/kg.

56. Naphthalene is an organic compound. Acute (short-term) exposure of humans to naphthalene by inhalation, ingestion, and dermal contact is associated with hemolytic anemia, damage to the liver, and neurological damage. Cataracts have also been reported in workers acutely exposed to naphthalene by inhalation and ingestion. Chronic (long-term) exposure of workers and rodents to naphthalene has been reported to cause cataracts and damage to the retina. Hemolytic anemia has been reported in infants born to mothers who "sniffed" and ingested naphthalene (as mothballs) during pregnancy. EPA has classified naphthalene as a Group C, possible human carcinogen. The MDEQ's Tier 1 groundwater TRG for naphthalene is 6.2 μg/L and in soil for unrestricted use is 194 mg/kg.

57. Toluene is an aromatic hydrocarbon. Acute exposure can cause dermatitis, central nervous system excitation and depression, respiratory tract irritation, eye irritation, lacrimation, metallic taste, nausea, hilarity, lassitude, drowsiness, impaired balance, paresthesia, vision disturbances, dizziness, respiratory failure, and ventricle fibrillation. Chronic exposure can cause severe muscle weakness, cardiac arrhythmias, gastrointestinal, and neurophysical complaints. The MCL and MDEQ Tier 1 groundwater TRG for toluene is 1,000 μg/L. The MDEQ's Tier 1 TRG for toluene in soil for unrestricted use is 38 mg/kg.

Exposure Pathways

58. The solid and hazardous wastes and/or hazardous constituents described in the above mentioned paragraphs were detected in some or all of the on-site groundwater samples, on-site surface soil samples, on-site sludge samples, and/or off-site sanitary sewer samples.

59. The groundwater contamination detected in some of the monitoring wells at Hercules' eastern property boundary indicates that contamination could have migrated off-site and could potentially jeopardize human health and the environment near the Facility, including nearby residents and workers.

60. Potential pathways of exposure to groundwater contaminants in the residential setting adjacent to the Facility include: direct inhalation of chemical vapor intruding from contaminated subsurface groundwater into residences, ingestion of contaminated groundwater from on-site potable water wells, and dermal absorption of contaminated groundwater migrating through saturated topsoil from the underlying aquifer. Receptors in this residential setting include adults, children, family pets, and wildlife.

61. Potential pathways of exposure to groundwater contaminants in an industrial or commercial setting include direct inhalation of chemical vapor intruding from contaminated subsurface groundwater into buildings and dermal absorption of contaminated groundwater migrating through saturated topsoil from the underlying aquifer. Receptors in an industrial setting include adults, such as on-site workers, and other adults that may be engaged in business on-site.

62. The sanitary sewer system contamination detected in the samples taken from the sewer line beneath Providence Street indicate that contamination from the Facility may be infiltrating the sewer line and could potentially jeopardize human health and the environment nearby, as well as the operations of the POTW.

63. Potential pathways of exposure to contamination in the sanitary sewer system in the area along Providence Street include direct inhalation of chemical vapor intruding from the contaminated sewer into the buildings, both commercial and residential, located along Providence Street. Receptors in this setting include adults, children, family pets, wildlife, employees, and public workers.

64. Additional potential pathways of exposure to contamination in the sanitary sewer system include direct dermal absorption from direct contact with the contents of the contaminated sewer line. Receptors in this setting include public workers and wildlife.

IV. DETERMINATIONS AND CONCLUSIONS OF LAW

65. Respondent's Facility is a "facility or site" within the meaning of Section 3013(a) of RCRA, 42 U.S.C. § 6934(a).

66. Respondent is a "person" as defined in Section 1004(15) of RCRA, 42 U.S.C. § 6903(15).

67. Respondent is an "owner" and/or "operator" of the Facility within the meaning of Section 3013(a) of RCRA, 42 U.S.C. § 6934(a).

68. Section 1004(27) of RCRA, 42 U.S.C. § 6905(27) defines the term "solid waste" to mean "any garbage, refuse . . . and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations. . . ."

69. Section 1004(5) of RCRA, 42 U.S.C. § 6903(5) defines the term "hazardous waste" to mean:

> a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may:
>
> A. cause or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or
>
> B. pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

70. Based on the foregoing Findings of Fact, and pursuant to Section 3013(a) of RCRA, 42 U.S.C. § 6934(a), EPA has hereby determined that the Facility, owned and/or operated by Respondent, is a facility at which hazardous waste is or has been stored, treated, or disposed of.

71. Based on the foregoing Findings of Fact, and pursuant to Section 3013(a) of RCRA, 42 U.S.C. § 6934(a), EPA has hereby determined that there may be a substantial hazard to human health or the environment due to the presence and/or release of hazardous wastes at or from the Facility.

72. EPA has further determined that Respondent, as owner and operator of the Facility, is the party responsible for conducting the actions ordered herein, which are necessary to ascertain the nature and extent of the hazard to human health or the environment.

V. ORDER

73. Based on the Findings of Fact and Determinations and Conclusions of Law, Respondent is hereby ordered, pursuant to Section 3013(a) of RCRA, 42 U.S.C. § 6934(a), to submit written proposals and to perform the following work in the manner and by the dates specified herein, for carrying out monitoring, testing, analysis, and reporting to ascertain the nature and extent of the hazards posed by the hazardous wastes and/or hazardous constituents that are present at, or that may have been released from, Respondent's Facility. Respondent is

hereby ordered to implement such proposals once approved, or modified and approved, by EPA. Such written proposals shall be specific and shall include, but are not limited to, performing the following:

74. **Phase I – Phase I Work Plan**: Within thirty (30) calendar days of the effective date of this Order, Respondent shall submit a Phase I Sampling and Analysis Work Plan (Phase I Work Plan) that shall, at a minimum, include the following components:

a. Drinking Water: The Phase I Work Plan shall include a section providing for an inventory of all wells on and within a four-mile radius of the Facility, and a schedule for the sampling of all such wells either on or within a half-mile radius of the Facility. This initial half-mile radius may be extended depending on the results of the initial sampling activities.

b. Surface Water and Sediment: The Phase I Work Plan shall include a section providing for a survey, sampling, and analysis of surface water and sediment of any wetlands, creeks, lakes, or other surface water bodies, including any ditches, located on and within a half-mile radius of the Facility. This survey should specifically identify any such bodies of water which are used for public recreational purposes or which may contain threatened or endangered species. The Phase I Work Plan shall designate the number, the locations, and the depths of the sampling. The initial half-mile radius may be extended depending on the results of the initial sampling activities.

c. Soil Gas Sampling: The Phase I Work Plan shall include a section addressing the collection of soil gas samples from residential and commercial properties within a half-mile radius of the Facility. The Phase I Work Plan shall designate the properties to be sampled, the methods of sample collection and analysis, the locations and depths of the sampling, and the parameters for analysis. Sampling activities shall include utility line easements and rights-of-way, and shall be conducted in accordance with EPA's "Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance)," (EPA530-D-02-004, November 2002), and other relevant policy and guidance documents. The initial half-mile radius may be extended depending on the results of the initial sampling activities.

d. Indoor Air: The Phase I Work Plan shall include a section addressing indoor air monitoring, should the results of the soil gas sampling conducted pursuant to Paragraph 74(c) above indicate that sampling of indoor air is warranted, at residential and commercial properties, as determined by EPA based on results of the soil gas sampling. The Work Plan shall designate the properties to be monitored, the monitoring procedures to be used, the parameters to be analyzed (per the above-referenced Subsurface Vapor

Intrusion Guidance), and a specific schedule for submission of results to EPA and MDEQ.

75. **Phase II – Phase II Work Plan**: Within ninety (90) calendar days of the effective date of this Order, Respondent shall submit a Phase II Sampling and Analysis Work Plan (Phase II Work Plan) to determine the nature and extent, horizontally and vertically, both on- and off-site, of air, soil, surface water, sediment, and groundwater contamination. The Phase II Work Plan shall be designed to determine the presence, magnitude, extent, direction, and rate of movement of any hazardous waste and hazardous constituents within and beyond the Facility boundaries. The Phase II Work Plan shall document the procedures Respondent shall use to conduct those activities necessary to: characterize the source(s) of contamination; characterize the potential pathways of contaminant migration; define the degree and extent of contamination; and identify actual or potential human and/or ecological receptors.

a. The Phase II Work Plan shall include, but not be limited to, the following on-site and off-site areas: areas which may have been used for the generation, treatment, storage, or disposal of hazardous constituents or hazardous wastes at any time; areas having known or potential releases of hazardous constituents or hazardous wastes from any process or manufacturing areas, suspected source areas, product spills, maintenance activities, industrial sewer lines, septic tanks, underground storage tanks, and current and former landfill areas; and any and all areas that may have been impacted by air deposition, soil deposition, surface water and sediment run-off, and/or groundwater migration.

b. The Phase II Work Plan shall include, but not be limited to, such areas as: storm water and non-process water ditches and ponds; ditches associated with any Facility NPDES outfall; the sludge pit disposal area (Back Forty); the IB; Green's Creek and tributaries to Green's Creek (such as the unnamed tributary north of the Back Forty); the public sewer system in the vicinity of the Facility; and surface water and drainage ditches leaving the Facility property (such as the drainage ditch on the eastern boundary of the Facility near the IB).

76. All work plans submitted to EPA pursuant to this Order shall include a detailed schedule for all work to be performed, as well as a schedule for submission of progress reports, draft Sampling and Analysis Reports, and final Sampling and Analysis Reports. The final Sampling and Analysis Reports shall define the nature, location, extent, direction, and rate of movement of any hazardous wastes and/or hazardous constituents identified at or as having been released from the Facility. The Final Sampling and Analysis Reports shall also summarize all actions taken to comply with this Order.

77. Upon EPA's approval of any work plan, Respondent shall implement such work plan within fifteen (15) calendar days.

78. EPA's technical representatives will be available to Respondent for guidance and direction during all phases of the investigation process, including development of all work plans,

implementation of field activities, evaluation of environmental data, and development of draft and final reports.

79. Unless otherwise approved by EPA, laboratory analysis of all samples shall be for the parameters designated in Appendix VIII of 40 C.F.R. Part 261, Appendix IX of 40 C.F.R. Part 264, dioxathion, dioxenethion, and any other constituent not listed in these appendices but which may have been released from or which may be present at the Facility.

80. All work plans submitted pursuant to this Order shall include a Project Management Plan, which shall list the names and qualifications of project personnel, and a Health and Safety Plan, which shall ensure the protection of workers and the public during the performance of all work under this Order.

81. All work conducted in accordance with this Order will reference and comply with approved EPA procedures and protocols for all sampling and analyses. All monitoring results and data shall be submitted to EPA and MDEQ in accordance with the format specified in the EPA Region 4 "Data Management and Electronic Data Deliverables" Memorandum (April 23, 2010), attached as Exhibit 5. Reporting of groundwater monitoring results shall, at a minimum, include well construction details, water level contours, contaminant trend graphs, and plume concentration diagrams. All analytical detection limits for constituents identified in the work plans referenced above must be below the appropriate human health and/or ecological risk-based limit. At their discretion, implementation of all field work specified in the work plans shall be overseen by EPA and/or MDEQ personnel.

82. This Order acknowledges that Respondent has conducted previous site assessment and groundwater monitoring activities at the Site and that Respondent may have available some of the information and data required by this Order. This previous work may be used to meet the requirements of this Order, upon submission to and formal approval by EPA. Respondent shall identify any prior data or information that it wishes to use to fulfill the requirements of this Order in the applicable work plan.

83. Respondent shall submit two (2) copies (one (1) hard copy and one (1) electronic copy) of all work plans and reports described in the preceding paragraphs to EPA and MDEQ consistent with the timelines in this Order or in any approved work plan. Electronic submittals may be made electronically on the due date, provided that the hard copies shall be placed in overnight delivery the same date.

84. Unless otherwise specified, any work plans, reports, or other deliverables that are required to be submitted under this Order shall be in writing and shall be hand delivered, sent by certified mail, return receipt requested, by overnight express mail, or by e-mail, to the following EPA and MDEQ representatives:

Chief, South Section
RCRA and OPA Enforcement and Compliance Branch
RCRA Division

United States Environmental Protection Agency, Region 4
61 Forsyth Street, S.W.
Atlanta, Georgia 30303-3104

and

Chief, Corrective Action Section
Restoration and Underground Storage Tank Branch
RCRA Division
United States Environmental Protection Agency, Region 4
61 Forsyth Street, S.W.
Atlanta, Georgia 30303-3104

and to:

Chris Sanders, Chief
Environmental Compliance and Enforcement Division
Mississippi Department of Environmental Quality
P.O. Box 2261
Jackson, Mississippi 39225
chris_sanders@deq.state.ms.us

85. Any variance from the approved terms and schedules contained in any approved work plan, or any monitoring, testing, analysis, or reporting conducted by Respondent without an approved work plan, may be determined to be unsatisfactory to EPA, and subject Respondent to the potential consequences identified in Section XXIV, Potential Consequences of Failure to Comply.

VI. ADDITIONAL WORK

86. EPA may determine that additional monitoring, testing, analysis, and/or reporting is necessary to ascertain the nature and extent of any hazard to human health or the environment which may be presented by the presence of hazardous wastes at and/or released from the Facility. If EPA determines that such additional work is necessary, EPA will notify Respondent in writing and specify the basis for its determination that additional work is necessary. Within fifteen (15) calendar days after the receipt of such determination, Respondent shall have the opportunity to meet or confer with EPA to discuss the additional work. If required by EPA, Respondent shall submit for EPA approval a work plan for the additional work. EPA will specify the contents of such work plan. Such work plan shall be submitted by Respondent within thirty (30) calendar days of receipt of EPA's determination that additional work is necessary, or according to an alternative schedule established by EPA. Respondent shall implement such work plan within fifteen (15) calendar days of EPA's approval.

VII. MINIMUM QUALIFICATIONS FOR PERSONNEL

87. All work performed by Respondent pursuant to this Order shall be under the direction and supervision of an individual who has demonstrated expertise in hazardous waste site investigation. As part of Respondent's Project Management Plan, required pursuant to Paragraph 80 above, before any work is performed, Respondent shall submit to EPA, in writing, the name, title, and qualifications of the supervisory personnel and of any contractors or subcontractors to be used in carrying out the terms of this Order. Additionally, Respondent shall ensure that when a license is required, only licensed individuals shall be used to perform any work required by this Order.

VIII. SUBMISSIONS/EPA REVIEW

88. EPA and MDEQ will review all written proposals, work plans, draft and final reports, and any other documents required to be submitted under this Order (submissions). EPA may: (a) approve the submission; (b) approve the submission with modifications; (c) disapprove the submission and direct Respondent to resubmit the document after incorporating EPA's comments; or (d) disapprove the submission and assume responsibility for performing all or any part of the work. EPA may also approve, modify, or disapprove a portion of a submission. As used in this Order, the terms "approval by EPA," "EPA approval," or a similar term means the action described in (a) or (b) of this paragraph.

89. Prior to EPA's written approval, with or without modifications, no written proposal, work plan, report, or other submission shall be construed as approved and final. Oral advice, suggestions, or comments given by EPA representatives will not constitute approval, nor shall any oral approval or oral assurance of approval be considered as binding.

90. Upon receipt of a notice of disapproval pursuant to Paragraph 88, or a request for a modification, Respondent shall, within fifteen (15) calendar days, or such longer time as specified by EPA in its notice of disapproval or request for modification, correct the deficiencies, and resubmit the work plan, report, specification, schedule, or other submission in accordance with EPA's written comments for approval. Notwithstanding the notice of disapproval, or approval with modifications, Respondent shall proceed, at the direction of EPA, to take any action required by any approved portion of the submission. Revised submittals are also subject to EPA approval, approval with conditions and/or modifications, or disapproval.

91. If, after providing Respondent with the opportunity to correct and resubmit any submittal required under this Order, EPA determines that the submittal still fails to meet the technical or administrative requirements of this Order or applicable regulations, EPA may modify the submission with EPA's comments and finalize and approve the document for implementation by Respondent.

92. Within fifteen (15) calendar days following EPA approval of a submission or portion thereof, Respondent shall implement such approved document or portion.

93. All written proposals, work plans, reports, and/or other submissions required by this Order are, upon approval by EPA (including modification and approval), incorporated into this Order. Any noncompliance with such EPA-approved written proposals, work plans, reports, specifications, schedules, and other submissions shall constitute noncompliance with this Order. Oral advice or approvals given by EPA representatives shall not relieve Respondent of its obligation to obtain formal, written approvals required by this Order.

94. In all instances in which this Order requires written submissions to be submitted to EPA, each submission must be signed by a "responsible official," such as a president, vice president, secretary, or treasurer of the corporation in charge of a principal business function, or any other person who performs similar decision-making functions for the corporation.

95. In all instances in which this Order requires written submissions to EPA, each submission must be accompanied by the following certification signed by a responsible official:

> "I certify that the information contained in and accompanying this submission is true, accurate, and complete. As to those identified portions of this submission for which I cannot personally verify the truth and accuracy, I certify as the facility official having supervisory responsibility for the person who, acting upon my direct instructions, made the verification, that this information is true, accurate, and complete."

Signature: _____

Name: _____

Title: _____

IX. QUALITY ASSURANCE/QUALITY CONTROL

96. All sampling undertaken pursuant to this Order shall be performed in accordance with the EPA-approved terms and schedules, and in a manner consistent with EPA's "Field Branches Quality System and Technical Procedures", which is available at http://www.epa.gov/region4/sesd/fbqstp/ index.html.

97. Respondent shall follow EPA guidance for sampling and analysis. As part of Respondent's Project Management Plan, required pursuant to Paragraph 80 above, Respondent shall develop a Quality Assurance Project Plan (QAPP) for all sampling and analysis conducted under this Order. All work plans submitted pursuant to this Order shall contain quality assurance/quality control (QA/QC) and chain of custody procedures for all sampling, monitoring, and analytical activities. Any deviations from the QA/QC and chain of custody procedures in approved work plans must be approved by EPA prior to implementation; must be documented, including the reasons for the deviations; and must be reported in the applicable report.

98. The name(s), address, telephone number, and contact person of each analytical laboratory Respondent proposes to use must be specified in the applicable work plan(s).

99. All work plans required under this Order shall include data quality objectives for each data collection activity to ensure that data of known and appropriate quality are obtained and that data are sufficient to support their intended use(s).

100. Respondent shall monitor to ensure that high quality data is obtained by its consultant(s) or contract laboratories. Respondent shall ensure that laboratories used by Respondent for analysis perform such analysis according to the latest approved edition of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW-846, Third Edition, as amended by Final Update IV, January 2008), or other methods deemed satisfactory to EPA. If methods other than EPA methods are to be used, Respondent shall specify and submit all such protocols for EPA approval in the applicable work plan. EPA may reject any data that does not meet the requirements of the approved work plan, or EPA analytical methods, and may require resampling and additional analysis.

101. Respondent shall ensure that the laboratories it uses for analyses participate in a QA/QC program equivalent to that which is followed by EPA. EPA may conduct a performance and QA/QC audit of each laboratory chosen by Respondent before, during, or after sample analyses. Upon request by EPA, Respondent shall have its laboratory perform analyses of samples provided by EPA to demonstrate laboratory performance. If the audit reveals deficiencies in a laboratory's performance or QA/QC, resampling and additional analysis may be required.

X. PROJECT COORDINATOR

102. EPA hereby designates as its Project Coordinator:

Meredith C. Anderson
Restoration and Underground Storage Tank Branch
RCRA Division
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street, SW
Atlanta, GA 30303
404-562-8608
anderson.meredith@epa.gov

103. Within ten (10) calendar days of Respondent's receipt of this Order, Respondent shall designate a Project Coordinator and submit the designated Project Coordinator's name, address, and telephone number in writing to EPA.

104. Each Project Coordinator shall, on behalf of the party that designated him/her, oversee the implementation of this Order and function as the principal project contact.

105. Respondent shall provide EPA with a written notice of any change in its Project Coordinator. Such notice shall be provided at least seven (7) calendar days prior to the change in Project Coordinator.

XI. IMMINENT AND SUBSTANTIAL ENDANGERMENT

106. Notwithstanding any other provision of this Order, an enforcement action may be brought against Respondent, pursuant to Section 7003 of RCRA, 42 U.S.C. § 6973, and/or any other applicable statutory or regulatory authority, should EPA find that the handling, storage, treatment, transportation or disposal of solid waste or hazardous waste at Respondent's Facility may present an imminent and substantial endangerment to human health or the environment.

XII. SAMPLING AND DATA/DOCUMENT AVAILABILITY

107. Respondent shall notify EPA seven (7) calendar days prior to collection of any samples. At the request of EPA, Respondent shall provide or allow EPA or its authorized representatives to take, split, and/or duplicate samples of all samples collected by Respondent pursuant to this Order.

108. Upon request, Respondent shall submit to EPA the results of all sampling and/or tests or other data generated by, or on behalf of, the Respondent pursuant to this Order.

XIII. ON-SITE AND OFF-SITE ACCESS

109. Respondent shall provide access at all reasonable times to the Facility and to all records and documentation relating to conditions at the Facility and the activities conducted pursuant to this Order to EPA and its employees, contractors, agents, consultants, and representatives. These individuals shall be permitted to move freely at the Facility in order to conduct activities which EPA determines necessary.

110. To the extent that activities required by this Order, or by any approved work plans prepared pursuant hereto, must be done on property not owned or controlled by Respondent, Respondent will use its best efforts to obtain site access agreements in a timely manner from the present owners of such property. Best efforts, as used in this paragraph, shall include the payment of reasonable compensation in consideration of granting access. Respondent shall ensure that EPA's Project Coordinator has a copy of any access agreements.

111. Nothing in this Order limits or otherwise affects EPA's right of access and entry pursuant to applicable law, including, but not limited to, RCRA and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

XIV. RECORD PRESERVATION

112. Respondent shall retain, during the pendency of this Order and for a minimum of five (5) years after its termination, a copy of all data, records, and documents now in its possession or

control, or in the possession or control of its contractors, subcontractors, representatives, or which come into the possession or control of the Respondent, its contractors, subcontractors, or representatives, which relate in any way to this Order. Respondent shall notify EPA, in writing, at least ninety (90) calendar days in advance of the destruction of any such records, and shall provide EPA with the opportunity to take possession of any such records. Such written notification shall reference the caption, docket number and date of issuance of this Order and shall be addressed to EPA's Project Coordinator, as follows:

Meredith C. Anderson
Restoration and Underground Storage Tank Branch
RCRA Division
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street, SW
Atlanta, GA 30303
404-562-8608
anderson.meredith@epa.gov

Additionally, Respondent shall provide data, records and documents retained under this Section at any time before the expiration of the five (5) year period at the written request of EPA.

XV. INFORMATION SUBMITTED TO EPA

113. Any information that Respondent is required to provide or maintain pursuant to this Order is not subject to the Paperwork Reduction Act of 1995, 44 U.S.C. § 3501 et seq.

114. Respondent may assert a business confidentiality claim in the manner described in 40 C.F.R. § 2.203(b) covering all or part of any information submitted to EPA pursuant to this Order. In accordance with 40 C.F.R. § 2.204(e)(4), any assertion of confidentiality shall be adequately substantiated by Respondent when the assertion is made. Information submitted for which Respondent has asserted a claim of confidentiality as specified above shall be disclosed by EPA only to the extent and manner permitted by 40 C.F.R. Part 2, Subpart B. If no such confidentiality claim accompanies the information when it is submitted to EPA, the information may be made available to the public by EPA without further notice to the Respondent. Respondent agrees not to assert any confidentiality claim with respect to any physical, sampling, monitoring, or analytical data.

XVI. RESERVATION OF RIGHTS

115. EPA expressly reserves all rights and defenses that it may have, including the right both to disapprove of work performed by Respondent pursuant to this Order, and to order that Respondent perform additional work, and/or to conduct the work itself.

116. EPA expressly reserves all of its statutory and regulatory powers, authorities, rights, remedies, both legal and equitable, including any which may pertain to Respondent's failure to

comply with any of the requirements of this Order, including, without limitation, the right to commence a civil action against Respondent seeking an order requiring compliance with this Order and/or the assessment of penalties under Section 3013(e) of RCRA, 42 U.S.C. § 6934(e), and all rights EPA has pursuant to RCRA § 3013(d), 42 U.S.C. § 6934(d), to conduct monitoring, testing, and analysis at the Facility and to seek reimbursement from Respondent for the costs of such activity. This Order shall not be construed as a covenant not to sue, or as a release, waiver or limitation of any rights, remedies, defenses, powers and/or authorities, civil or criminal, which EPA has under RCRA, CERCLA, the Clean Water Act (CWA), the Safe Drinking Water Act (SDWA), the Clean Air Act (CAA), or any other statutory, regulatory, or common law enforcement authority of the United States.

XVII. OTHER APPLICABLE LAWS

117. All actions required to be taken by Respondent pursuant to this Order shall be undertaken in accordance with the requirements of all applicable federal, state, and local laws, regulations, permits, and ordinances.

118. Compliance by Respondent with the terms of this Order shall not relieve Respondent of its obligations to comply with RCRA, or any other applicable federal, state, or local laws, regulations, permits, and ordinances.

119. This Order is not and shall not be interpreted to be a permit, or as a ruling or a determination of any issue related to a permit under federal, state or local law. This Order shall not in any way affect Respondent's obligation, if any, to secure such a permit, nor shall this Order be interpreted in any way to affect or waive any of the conditions or requirements that may be imposed by such permit, nor of Respondent's right to appeal any conditions of such permit. Respondent shall obtain or cause its representatives to obtain all permits and approvals necessary under such laws and regulations.

XVIII. OTHER CLAIMS

120. Nothing in this Order shall constitute or be construed as a release from any claim, cause of action, demand, or defense in law or equity, against any person, firm, partnership, or corporation for any liability it may have arising out of or relating in any way to the generation, storage, treatment, handling, transportation, release, or disposal of any solid wastes, hazardous wastes, hazardous constituents, hazardous substances, pollutants, or contaminants found at, taken to, or migrating from the Facility.

121. 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 or its agents, contractors, subcontractors or other representatives.

122. Neither the United States nor EPA shall be deemed a party to any contract involving Respondent and relating to activities at the Facility and shall not be liable for any claim or cause of action arising from, or on account of, any act or omission of Respondent, its officers,

employees, contractors, receivers, trustees, agents or assigns, in carrying out the activities required by this Order.

XIX. SUBSEQUENT MODIFICATION OF ORDER

123. This Order may only be modified by written amendment signed by the undersigned EPA Region 4 RCRA Division Director. Modifications in any schedule adopted pursuant to this Order may be made in writing by EPA's Project Coordinator.

124. No informal advice, guidance, suggestions, or comments by EPA shall be construed to modify the requirements of this Order. Routine communications exchanged verbally, in person, by telephone or by electronic mail between the parties to facilitate the orderly conduct of work contemplated by this Order shall not alter or waive any rights and/or obligations of the parties under this Order.

XX. SEVERABILITY

125. If any provision or authority of this Order, or the application of this Order to any party or circumstances, is held by any judicial or administrative authority to be invalid, the application of such provisions to other parties or circumstances and the remainder of the Order shall not be affected thereby and shall remain in full force.

XXI. TERMINATION AND SATISFACTION

126. Respondent may seek termination of this Order by submitting to EPA a written document which indicates Respondent's compliance with all requirements of this Order, and the associated dates of approval correspondence from EPA. The provisions of this Order shall be deemed satisfied upon Respondent's and EPA's execution of an "Acknowledgment of Termination and Agreement for Record Preservation and Reservation of Rights" (Acknowledgment). The Acknowledgment shall specify that Respondent has demonstrated to the satisfaction of EPA that the terms of this Order, including any additional work determined by EPA to be required pursuant to this Order, have been satisfactorily completed. The Acknowledgment shall not, however, terminate Respondent's obligations to comply with any continuing obligations hereunder, including, but not limited to, XIV, Record Preservation; Section XVI, Reservation of Rights; Section XVII, Other Applicable Laws; and Section XVIII, Other Claims.

XXII. SURVIVABILITY/PERMIT INTEGRATION

127. Except as otherwise expressly provided in this section, this Order shall survive the issuance or denial of a RCRA permit for the Facility, and this Order shall continue in full force and effect after either the issuance or denial of such permit. Accordingly, Respondent shall continue to be liable for the performance of obligations under this Order notwithstanding the issuance or denial of such permit. If the Facility is issued a RCRA permit and that permit expressly incorporates all or a part of the requirements of this Order, Respondent may request a

modification of this Order and shall, with EPA approval, be relieved of liability under this Order for those specific obligations.

XXIII. OPPORTUNITY TO CONFER

128. In accordance with Section 3013(c) of RCRA, 42 U.S.C. § 6934(c), Respondent or its representative may confer in person or by telephone with EPA regarding the Respondent's written proposals. The opportunity to confer with EPA may be pursued by the Respondent either before or after the written proposals are due, but not later than sixty (60) calendar days after the issuance of this Order.

129. The scheduling of a conference with EPA does not relieve Respondent of the obligation to submit the written proposals required under Section V, Order, within the deadlines specified in this Order, or to implement the proposals once approved by EPA.

130. At the conference described above, Respondent may appear in person and/or by attorney or other representative.

131. Any request for a conference with EPA, and other questions regarding this Order should be directed to:

Colleen E. Michuda
Associate Regional Counsel
Office of RCRA, OPA and UST Legal Support
Office of Environmental Accountability
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street, S.W.
Atlanta, Georgia 30303
Phone: 404-562-9685
michuda.colleen@epa.gov

If Respondent fails to request a conference within the time periods specified in this Section, or fails to agree upon a date to schedule such conference within the time periods specified in this Section, Respondent shall be deemed to have waived the opportunity under Section 3013(c) of RCRA to confer with EPA regarding Respondent's written proposal.

XXIV. POTENTIAL CONSEQUENCES OF FAILURE TO COMPLY

132. If EPA determines that Respondent is not able to conduct the activities required by this Order in a satisfactory manner, or if actions carried out by Respondent are deemed unsatisfactory, then EPA or its representatives may conduct such monitoring, testing and analysis deemed reasonable by EPA to ascertain the nature and extent of the hazard at the property and/or Facility of Respondent, or authorize the State or any other person to conduct such monitoring, testing, and analysis. Respondent may then be ordered to reimburse EPA or its representatives, or the State or other person authorized by EPA, for the costs of such activity pursuant to Section 3013(d) of RCRA, 42 U.S.C. § 6934(d).

133. In the event Respondent fails or refuses to comply with the terms and provisions of this Order, EPA may commence a civil action in accordance with Section 3013(e) of RCRA, 42 U.S.C. § 6934(e), to require compliance with such Order and to assess a civil penalty not to exceed $7,500 for each calendar day during which such failure or refusal occurs.

XXV. EFFECTIVE DATE

134. The Order shall be effective ten (10) calendar days after the date of issuance, i.e., the date on which it is signed by the RCRA Division Director.

DOCKET NO: RCRA-04-2011-4251

IT IS SO ORDERED
BY U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 4

DATE: 5/9/11 BY: _____

G. Alan Farmer
Director
RCRA Division
United States Environmental Protection Agency
Region 4
61 Forsyth Street SW
Atlanta, Georgia 30303

DOCKET NO: RCRA-04-2011-4251

CERTIFICATE OF SERVICE

I hereby certify that the original and one copy of the foregoing RCRA SECTION 3013 ORDER REQUIRING MONITORING, TESTING, ANALYSIS AND REPORTING was filed with the Regional Hearing Clerk, EPA Region 4, 61 Forsyth St., S.W., Atlanta, Georgia 30303, and that a true copy of the same was sent by Express Mail with Certified, Return Receipt Requested to:

Mr. Rodney S. Bolton
Ashland Hercules Water Technologies
5228 North Hopkins Street
Milwaukee, Wisconsin 53209

Mr. Gary C. Rikard
Butler, Snow, O'Mara, Stevens & Cannada, PLLC
Crescent Center
6075 Poplar Avenue, 5th Floor
Memphis, Tennessee 38119

Dated this 10 day of May, 2011.

Luz M. Colon

Luz Colon
Secretary
Office of Environmental Accountability
EPA, Region 4

EXHIBIT 1

Hercules, Inc.

Administrative Record

RCRA Section 3013(a) Order

Volume 1

1. United States Environmental Protection Agency (US EPA), "History of Activity Handler Report, for Hercules, Inc.," <http://rcrainfo.epa.gov> (April 27, 2011).

   US EPA, "RCRA Site Detail, for Hercules, Inc.," <http://rcrainfo.epa.gov> (April 27, 2011).

2. Letter from Gary C. Rikard, Butler, Snow, O'Mara, Stephens & Cannada, PLL, to Chris Wells, Mississippi Department of Environmental Quality (MDEQ), "Response to January 12, 2011, Request for Information," (March 9, 2011).

3. Mississippi Secretary of State Business Services, Corporate Record for Hercules, Inc., <https://business.sos.state.ms.us> (March 1, 2011).

4. Eco Systems, Inc. for Hercules, Inc., "2nd Semi-Annual Monitoring Report 2010," (February 25, 2011).

5. US EPA, "SESD Final Field Investigation Report for Hercules, Inc.," (January 31, 2011).

6. Letter from Chris Sanders, MDEQ, to Tim Hassett, Hercules, Inc., "Sludge Characterization and Bench Treatability Report dated August 20, 2010," (November 10, 2010).

7. MDEQ, Providence Street Sewer Sample Results, (October 1, 2010).

8. Jackson, Randy, US EPA, " RCRA Case Development Investigation/Evaluation Report," (inspection date of September 28-29, 2010).

9. US EPA, "Regional Screening Level Table," (December 2009).

10. Eco Systems, Inc. for Hercules, Inc., "Groundwater Assessment Report of the Former IB Basin," (November 10, 2009).

11. Letter from Rodney S. Bolton, Ashland Hercules Water Technologies, to Jan Patton, MDEQ, "Re: Notice of Violation Hercules Inc Hattiesburg, Mississippi Forest County NOV Response Follow-up," (June 9, 2009).

Hercules, Inc.

Administrative Record

RCRA Section 3013(a) Order

Volume 1

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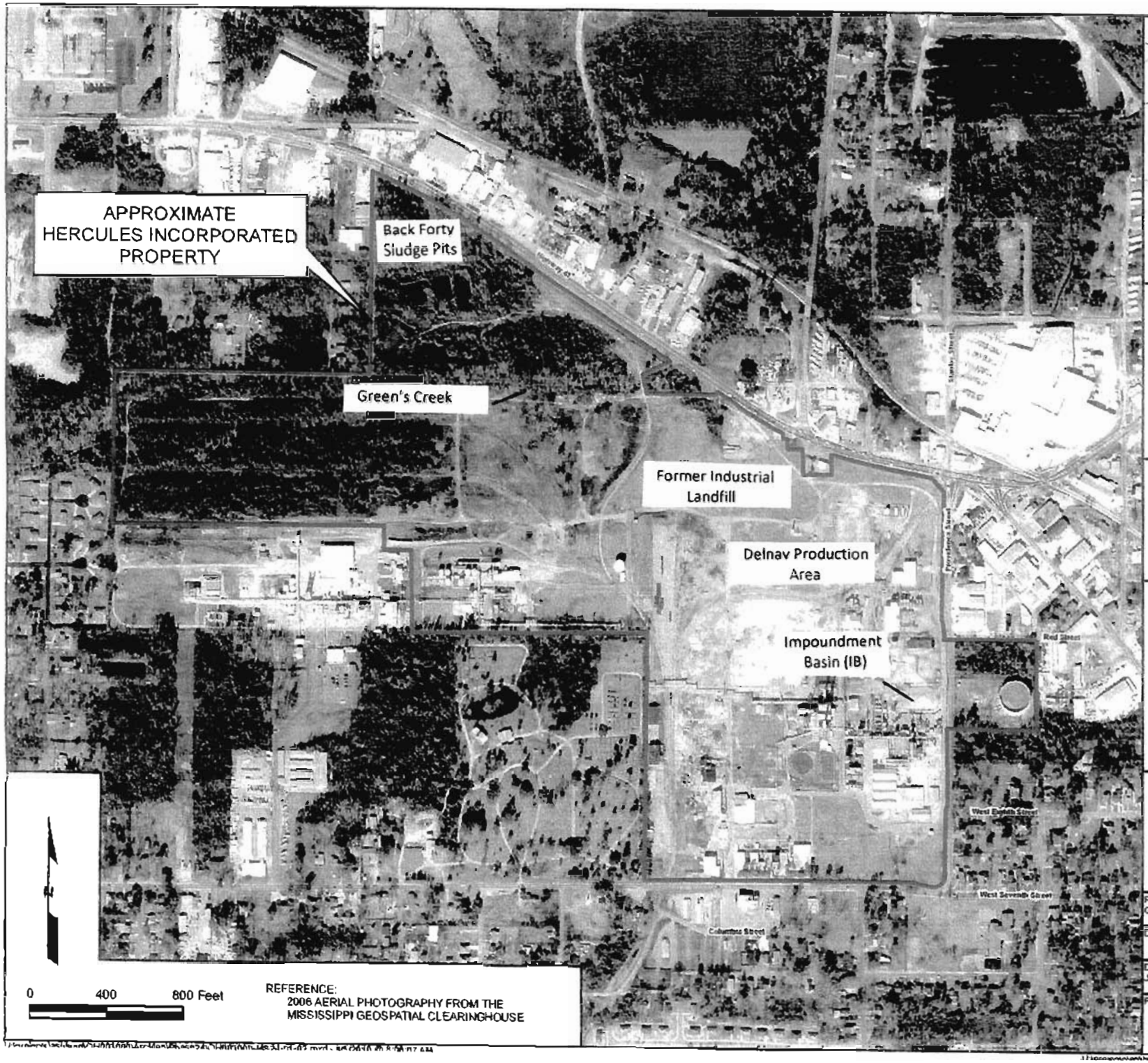
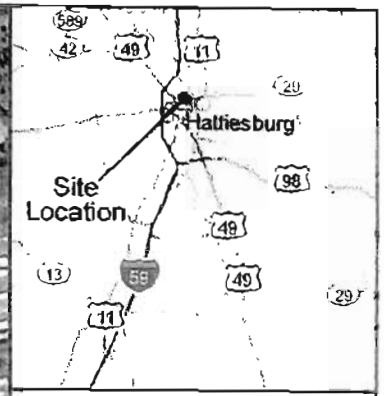
Exhibit 3





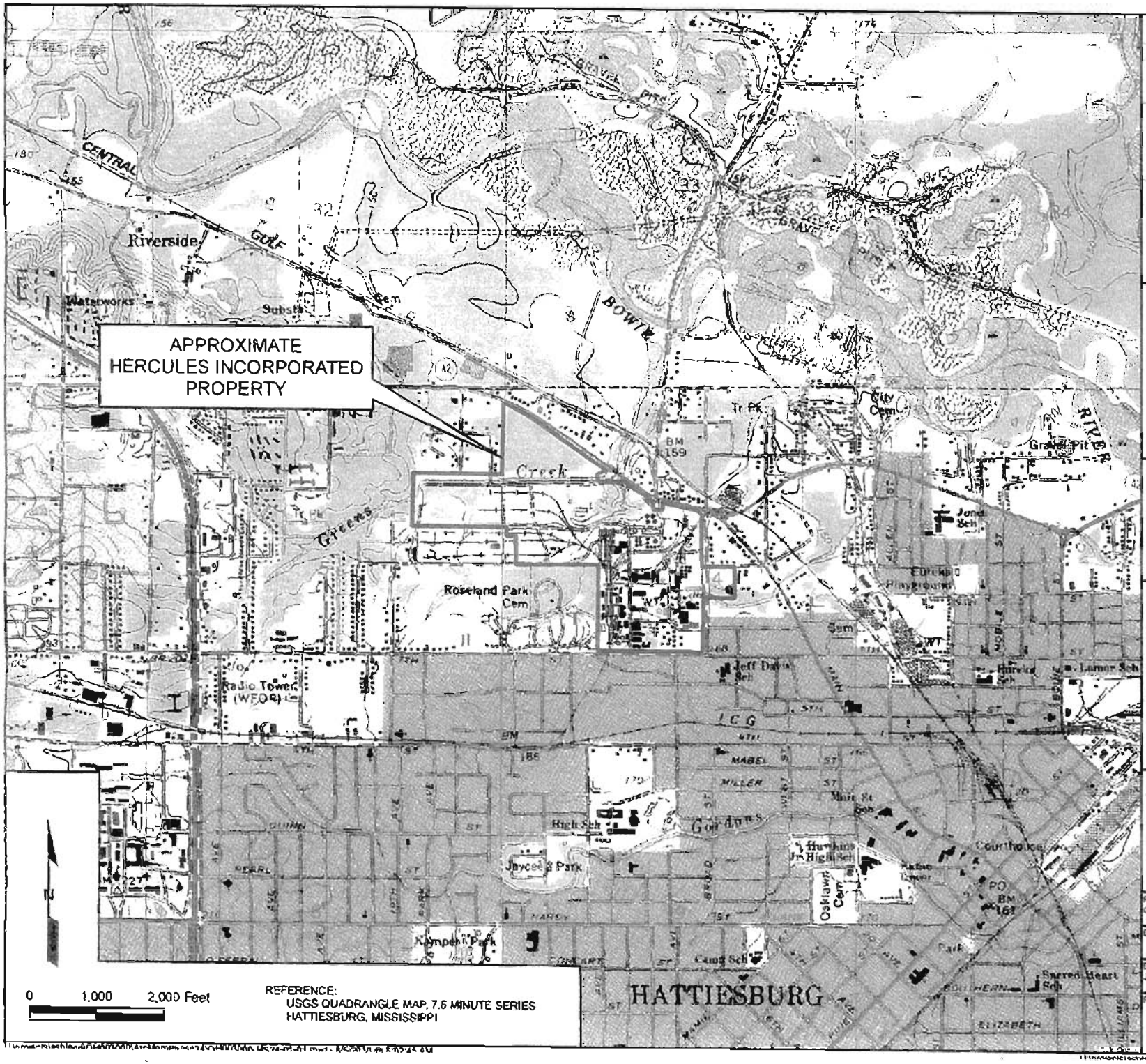
2006 AERIAL PHOTOGRAPHY

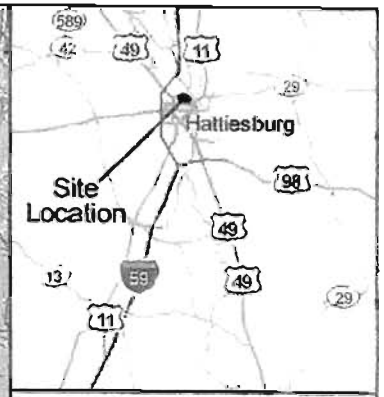
INVESTIGATION AREA
HERCULES INCORPORATED
Hattiesburg, Mississippi

ARCADIS
10352 PLAZA AMERICANA DRIVE
BATON ROUGE, LA 70816
TEL: 225-292-1004
FAX: 225-218-9677
WWW.ARCADIS-US.COM

PROJECT MANAGER: GHC	CHECKED BY: CD
DRAWING FILE:	GIS FILE:
DRAWING BY: JEC	DATE: 7/05/2010
PROJECT NUMBER: OH003000.MS24	FIGURE NUMBER: 2

Exhibit 2





SITE LOCATION MAP

INVESTIGATION AREA
HERCULES INCORPORATED
Hattiesburg, Mississippi

ARCADIS
10352 PLAZA AMERICANA DRIVE
BATON ROUGE, LA 70816
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PROJECT MANAGER: GHC	CHECKED BY: CD
DRAWING FILE:	GIS FILE:
DRAWING BY: JEC	DATE: 08/05/2010
PROJECT NUMBER: OH003000.MS24	FIGURE NUMBER: 1

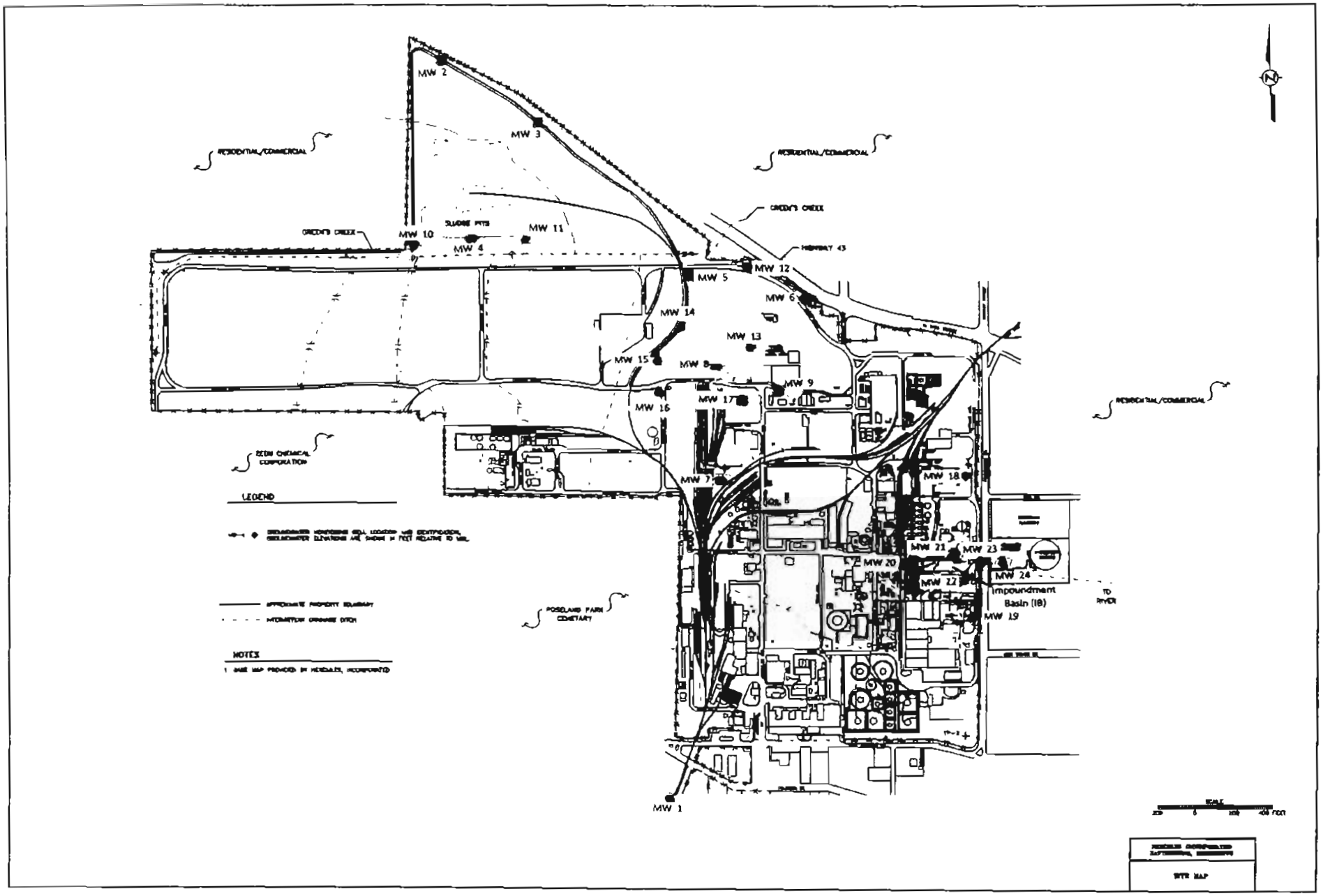
RESIDENTIAL/COMMERCIAL
RESIDENTIAL/COMMERCIAL
RESIDENTIAL/COMMERCIAL
GREEN'S CREEK
GREEN'S CREEK
HIGHWAY 43
SLUDGE PITS
MW 1
MW 2
MW 3
MW 4
MW 5
MW 6
MW 7
MW 8
MW 9
MW 10
MW 11
MW 12
MW 13
MW 14
MW 15
MW 16
MW 17
MW 18
MW 19
MW 20
MW 21
MW 22
MW 23
MW 24
Impoundment Basin (18)
TO RIVER
RESIN CHEMICAL CORPORATION
ROSELAND PARK CEMETARY
LEGEND
APPROXIMATE PROPERTY BOUNDARY
INTERMITTENT DRAINAGE DITCH
NOTES
1. BASE MAP PROVIDED BY HONEYWELL, INCORPORATED
SCALE
SITE MAP

Exhibit 5

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

APR 2 3 2010

MEMORANDUM

SUBJECT: Region 4 Data Management and Electronic Data Deliverables (EDDs)

FROM: Franklin E. Hill
Superfund Division Director

TO: Superfund Division

Introduction

As information technology advancements continue, the ability to receive, store, and use electronic data from a variety of sources becomes a critical aspect of EPA's work. EPA has the need to receive and use environmental data in an electronic format. In an effort to streamline the electronic submittal of various environmental sampling data, EPA Region 4 has adopted a standardized electronic data deliverable (EDD) format. Using a Regional EDD format allows for efficient and cost-effective exchange of site data with contractors, and Federal and State agencies.

The EPA Region 4 standard format for EDDs include quality controls to minimize potential data errors so that the data can be appropriately analyzed and utilized for decision making. The data is electronically archived for ready access as needed. As different contractors, consultants, and agencies are involved in various stages of a Superfund project, there are significant cost savings in having the site-related data readily available. The uniform EDD approach does more than cut site management costs. It provides better and more reliable stewardship of Superfund data, and when integrated with other information such as GIS, it helps ensure transparent decision making.

Data Management and Electronic Data Deliverables

When conducting Superfund work in Region 4, the party submitting data will provide an electronic submittal of data in accordance with Region 4 policies, guidelines, and formats. The Region 4 EDD is a standardized format required by the Field Branches Quality System and Technical Procedures, Environmental Data Submission Guidance, SESD-106-R0 (or most recent version). The Field Branches Quality System and Technical Procedures supersede the *"Environmental Investigations Standard Operating Procedures and Quality Assurance Manual" (EISOPQAM), November 2001*, and the *"Ecological Assessment Standard Operating Procedures and Quality Assurance Manual" (EASOPQAM), January 2002*. The methods described in this document are to be used by all data providers when preparing and submitting environmental data electronically to Region 4, regardless of the originating program.

All required information, instructions and guidance are available via the EPA web site www.epa.gov/region4/waste/sf/edd/edd.html free of charge. This web site contains links to obtain the required software, as well as the most recent versions of the Environmental Data Submission Guidance, the Region 4 EDD Reference Guide, and the Region 4 EDP Reference Manual.

Should you have questions regarding electronic data submission or wish to obtain paper copies of the guidance documents, please contact Beth Walden, Remedial Project Manager, at (404) 562-8814, or you may email walden.beth@epa.gov. You may also contact the DART Coordinator at (404) 562-8558, or you may email R4dartcoordinator@epa.gov.