

ALABAMA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

IN THE MATTER OF:

WCB Alabama, Inc.
309 Williamson Avenue
Opelika, Alabama

EPA ID No.: ALD 003 301 884

CONSENT ORDER NO. 98-093-CHW

I. JURISDICTION

1. This Consent Order ("Order") is issued pursuant to the authority vested in the Alabama Department of Environmental Management (ADEM) by section 22-30-19(b) of the Hazardous Wastes Management and Minimization Act, Code of Alabama, 1975, as amended, §§ 22-30-1 to 22-30-24 (the "Act" or AHWMMA).
2. This Order is issued to WCB Alabama, Inc. (WCB), the owner of the property located at 309 Williamson Avenue, Opelika, AL. The specific boundaries of WCB are described in Exhibit A.
3. WCB will not contest ADEM's jurisdiction to: compel compliance with this Order in any subsequent enforcement proceedings, either administrative or judicial; require WCB's compliance with the terms of this Order; or impose sanctions for violations of this Order.
4. That for the purpose of this Order only, WCB agrees that the Department may properly bring an action to compel compliance with the terms and conditions contained herein in the Circuit Court for Montgomery County. WCB also agrees that in any action brought by the Department to compel compliance with the terms of this Order, WCB shall be limited to the defenses of force Majeure, compliance with this Order, and physical impossibility. WCB also agrees that in any action brought by the Department to compel compliance with the terms of this Order, shall not contest the terms of this Order.

executed mailed
2/12/98 2/12/98

II. DEFINITIONS

Unless otherwise expressly provided herein, terms used in this Order which are defined in AHWMMMA or in regulations promulgated under AHWMMMA shall have the definitions given to them in AHWMMMA or in such regulations.

1. Acceptable, in the phrase "In a manner acceptable to ADEM..." shall mean that submittals or completed work meet the terms and conditions of this Order, attachments, scopes of work, approved workplans and/or ADEM's written comments regarding WCB issued in conformance with this Order.
2. Action Levels for the purposes of this Order are health-based concentrations of hazardous constituents determined to be indicators for the protection of human health and/or the environment.
3. Additional Work shall mean any activity or requirement that is not expressly covered by this Order or its attachments but is determined by ADEM to be necessary to comply with the corrective action provisions of the AHWMMMA and regulations promulgated pursuant to it. Such determination shall be in writing consistent with Section IX.C. of this Order.
4. Administrative Record shall mean the record compiled and maintained by ADEM supporting this Order.
5. Alternate Concentration Limit (ACL) for the purposes of this Order refers to a groundwater concentration limit which is established pursuant to ADEM Admin. Code R. 335-14-5-.06(5)(b).
6. Area of Concern (AOC) for the purposes of this Order includes any area having a probable release of a hazardous waste or hazardous constituent which is not from a solid waste management unit and is determined by the Department to pose a current or future threat (either actual or potential) to human health or the environment. Such areas of concern may require investigations and remedial action as required under Section 3005(c)(3) of the Resource Conservation and Recovery Act and ADEM Admin. Code R. 335-14-8-.03(3)(b)2. in order to ensure adequate protection of human health and the environment.
7. Comply or Compliance may be used interchangeably and shall mean completion

of work required by this Order, or any modification thereof, its attachments or any modification thereof in a manner acceptable to ADEM. WCB must meet both the quality and timeliness components of a particular requirement to be considered in compliance with the terms and conditions of this Order.

8. Contamination for the purposes of this Order refers to the presence of any hazardous constituent in a concentration which exceeds the naturally occurring concentration of that constituent in the immediate vicinity of WCB (in areas not affected by WCB).

9. Contractor shall include any subcontractor, consultant or laboratory retained to conduct or monitor any portion of the work performed pursuant to this Order.

10. Corrective Action for the purposes of this Order is the sum of all corrective measures, and may include all corrective measures necessary to protect human health and the environment for all releases of hazardous waste or hazardous constituents from any solid waste management unit at WCB, regardless of the time at which waste was placed in the unit, as required by ADEM Admin. Code R. 335-14-5-.06(11) and/or 335-14-5-.06(12).

11. Corrective Action Management Unit (CAMU) for the purposes of this Order, includes any area within a facility that is designated by the Director under ADEM Admin. Code R. 335-14-5-.19 for the purpose of implementing corrective action requirements under ADEM Admin. Code R. 335-14-5-.06(12), 22-30-19 et seq., Code of Alabama 1975, and/or RCRA section 3008(h). A CAMU shall only be used for the management of remediation wastes pursuant to implementing such corrective action requirements at WCB.

12. Corrective Measures for the purposes of this Order, include all individual measures taken and/or necessary to remedy releases and to protect human health and the environment for all releases of hazardous waste or hazardous constituents from any solid waste management unit at WCB, regardless of the time at which waste was placed in the unit, as required under ADEM Admin. Code R. 335-14-5-.06(12). Corrective measures may address releases to air, soils, surface water, or groundwater. The sum of all individual corrective measures is known as corrective action.

13. Day shall mean a calendar day unless expressly stated to be a business day. Business day shall mean a day other than a Saturday, Sunday, or State Holiday. In computing any period of time under this Order, where the last day would fall on a Saturday, Sunday, or State Holiday, the period shall run until the end of the next business day.
14. ADEM or Department shall mean the Alabama Department of Environmental Management.
15. Facility for the purposes of this Order includes all contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units (e.g. one or more landfills, surface impoundments, or combination of them). For the purposes of implementing corrective action under ADEM Admin. Code R. 335-14-5-.06(12) a facility includes all contiguous property under the control of the owner or operator seeking a Order under Subtitle C of RCRA.
16. Hazardous Constituents for the purposes of this Order are those substances listed in ADEM Admin. Code R. 335-14-2- Appendix VIII and/or Appendix IX of Chapter 335-14-5 and include hazardous constituents released from solid waste, hazardous waste, and hazardous waste constituents that are reaction by-products.
17. Hazardous Waste shall mean hazardous waste as defined by AHWMMMA or the rules promulgated thereunder.
18. Interim Measures (IM) for the purposes of this facility are actions necessary to minimize or prevent the further migration of contaminants and limit actual or potential human and environmental exposure to contaminants while long term corrective action remedies are evaluated and, if necessary, implemented.
19. Maximum Concentration Limit (MCL) for the purposes of this Order refers to a groundwater concentration limit listed in Table 1 of ADEM Admin. Code R. 335-14-5-.06(5), or which is listed in ADEM Admin. Code R. 335-7-2 (Primary Drinking Water Standards) or ADEM Admin. Code R. 335-7-3 (Secondary Drinking Water Standards) or analogous federal safe drinking water regulations (40 CFR 141). In cases where a constituent is listed in multiple sources (ADEM Admin. Code R. 335-14 and/or ADEM

Admin. Code R. 335-7, and/or 40 CFR 141), the most stringent standard shall apply.

20. Method Detection Limit (MDL) for the purposes of this Order means the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

21. Practical Quantitation Limit (PQL) for the purposes of this Order, are the lowest concentrations of analytes in groundwaters that can be reliably determined within specified limits of precision and accuracy by a given method under routine laboratory operating conditions, as listed in ADEM Admin. Code R. 335-14-5-Appendix IX.

22. Release for the purposes of this Order includes any spilling, leaking, pouring, emitting, emptying, discharging, injecting, escaping, leaching, pumping, or disposing into the environment of any hazardous waste or hazardous constituent.

23. Remediation Waste for the purposes of this Order includes all solid and hazardous wastes, and all media (including groundwater, surface water, soils, and sediments) and debris, which contain listed hazardous wastes or which themselves exhibit a hazardous waste characteristic, that are managed for the purpose of implementing corrective action requirements under ADEM Admin. Code R. 335-14-5-.06(12) and RCRA Section 3008(h). For a given facility, remediation wastes may originate only from within WCB boundary, but may include waste managed in implementing RCRA Sections 3004(v) or 3008(h) for releases beyond WCB boundary.

24. Solid Waste for the purposes of this Order means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded materials, including solid, liquid, semisolid, or contained gaseous materials resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to Orders under Section 402 of the Federal Water Pollution Control Act, as amended (86 Stat. 880), or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended (68 Stat. 923).

25. Solid Waste Management Unit (SWMU) for the purposes of this Order includes any unit which has been used for the treatment, storage or disposal of solid waste at any time, irrespective of whether the unit is or ever was intended for the management of solid waste. RCRA regulated hazardous waste management units are also solid waste management units. SWMUs include areas that have been contaminated by routine and systematic releases of hazardous waste or hazardous constituents, excluding one-time accidental spills that are immediately remediated and cannot be linked to solid waste management activities (e.g., product or process spills).
26. Submittal shall include any workplan, report, progress report, or any other written document WCB is required by this Order to send to ADEM.
27. Temporary Unit (TU) for the purposes of this Order includes any tanks and/or container storage areas used solely for treatment or storage of hazardous remediation wastes during specific remediation activities pursuant to the requirements of ADEM Admin. Code R. 335-14- 5-.19(2). Designated by the Department, such units must conform to specific standards, and may only be in operation for a period of time as specified in this Order.
28. Violations of this Order shall mean those actions, omissions, failures, or refusals to act by WCB which have not been adjudicated by Dispute Resolution, that result in a failure to meet the terms and conditions of this Order or its attachments.
29. Work or Obligation shall mean any activity WCB must perform to comply with the requirements of this Order and its attachments.

III. PARTIES BOUND

1. This Order shall apply to and be binding upon ADEM, WCB and its officers, directors, employees, agents, successors in interest and assigns of the property and to the owners thereof, heirs, trustees, receivers, and upon all persons or entities existing or operating under or for them. Each signatory to this Consent Order must certify that he or she is fully authorized by the party he or she represents to enter into the terms and conditions of this Consent Order, to execute the Consent Order on behalf of the party represented and to legally bind such party.
2. No change in corporate or partnership status relating to WCB will in any way alter

WCB or any parties having or acquiring right, title or interest in all or a portion of the
aforescribed property responsibility under this Order.

3. WCB shall provide a copy of this Order to all contractors, laboratories, and
consultants retained to conduct or monitor any portion of the work performed pursuant to
this Order within 14 days of the issuance of this Order or the retention of such person(s),
whichever occurs later, and shall condition all such contracts on compliance with the
terms of this Order.

4. WCB shall give written notice of this Order to any successor in interest prior to
transfer of ownership or operation of the Facility or a portion thereof and shall notify
ADEM in writing within thirty (30) days prior to such transfer. This Order shall be
binding upon each successor in interest and assigns of the property and to the owners
thereof.

5. WCB agrees to undertake all actions required by the terms and conditions of this
Order, including any portions of this Order incorporated by reference. This Consent
Order shall not be appealable and WCB does hereby waive any administrative hearing on
terms and conditions of same. [This does not waive WCB's appeal rights through
Dispute Resolution.]

IV. FINDINGS OF FACT

Pursuant to the provisions of the Alabama Environmental Management Act, Code of
Alabama 1975, as amended, §§ 22-22A-1 through 22-22A-16, and the Alabama
Hazardous Wastes Management and Minimization Act of 1978, Code of Alabama 1975,
as amended, §§ 22-30-1 through 22-30-24, the Alabama Department of Environmental
Management makes the following FINDINGS OF FACT:

1. WCB is a "person" within the meaning of Section 22-30-3(9) of AHWMMMA.

2. WCB purchased the facility in question from Diversified Products on December
5, 1997 and; thus WCB became legally responsible under the AHWMMMA to perform
corrective action at the facility.

3. Certain wastes and constituents found at the Facility are hazardous wastes and/or
hazardous constituents pursuant the ADEM Administrative Code.

4. There is or has been a release of hazardous wastes or hazardous constituents into

the environment from the Facility.

5. The actions required by this Order are necessary to protect human health and/or the environment.

6. DIVERSIFIED PRODUCTS was a small quantity generator of hazardous waste and was an owner and operator of hazardous waste management facilities located at 309 Williamson Avenue, Opelika, Alabama prior to the sale of the property to WCB.

DIVERSIFIED PRODUCTS engaged in storage of hazardous waste at WCB subject to interim status requirements ADEM Administrative Code Ch. 335-14-6. The storage facilities included tanks containing chrome plating waste which are no longer present at the Facility.

7. DIVERSIFIED PRODUCTS owned and operated the hazardous waste management facilities on or after November 19, 1980, the applicable date which renders facilities subject to interim status requirements or the requirement to have a Order under ADEM Administrative Code Chapters 335-14-6 and 335-14-8.

8. One of the SWMUs identified in the November, 1991 RFA for which documentation of a release (100-200 gallons of solvent) exists was SWMU #32, the bulk storage tank containment area. This SWMU managed paint product and solvents containing acetone, toluene, methyl ethyl ketone, and 4-methyl-2-pentanone.

9. On July 31, 1995, DIVERSIFIED PRODUCTS submitted a clean-closure certification to ADEM for the formerly regulated units at the Facility. ADEM has indicated to WCB that the clean-closure certification may be approved following public notice and comment.

10. On August 11, 1997, a RCRA Facility Assessment ("RFA") for the Facility was completed. The RFA identified 46 SWMUs and 1 AOC at the Facility.

11. ADEM and/or WCB has detected releases of the following hazardous wastes or hazardous constituents in soil or groundwater at the Facility: acetone, benzene, 2-butanone, 4-methyl-2-pentanone, 2-hexanone, tetrachloroethylene, carbon disulfide, chlorobenzene, flouromethane, 1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethylene, 1,2-dichloroethylene, ethyl benzene, methylene chloride, toluene, 1,1,1-trichloroethane, trichloroethylene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and

xylenes. In addition, chromium and lead have been detected in soils or groundwater.

12. WCB did not cause the releases of hazardous waste or hazardous constituents at the Facility described above.

13. WCB has conducted studies of soil and groundwater in preparation for the transfer of ownership of the Facility from Diversified Products. The results of these investigations may or may not have been previously reported to, or reviewed or approved by the Department. For clarification, these investigations shall heretofore be referred to collectively as Phase I RFI Activities.

14. WCB has notified the Department that WCB does not intend to treat, store or dispose of hazardous waste at the Facility. WCB may generate hazardous waste at the Facility in the future. However, WCB will manage any such hazardous waste as a generator, a small quantity generator, or a conditionally exempt small quantity generator and dispose of any such waste off site in compliance with ADEM's regulations.

15. This Order is intended to establish an orderly mechanism to select and implement those corrective actions necessary to protect human health and the environment at the Facility.

16. Many of the SWMUs identified in the RFA have been removed and the hazardous waste management units identified in the RFA have been closed or have submitted applications for closure.

V. PROJECT COORDINATOR

Within thirty (30) days of the effective date of this agreement, ADEM and WCB shall each designate a Project Coordinator and shall notify each other in writing of the Project Coordinator it has selected. Each Project Coordinator shall be responsible for overseeing the implementation of this Order and for designating a person to act in his/her absence. The ADEM Project Coordinator will be ADEM's designated representative for WCB. To the maximum extent practicable, all communications between WCB and ADEM, and all documents, reports, approvals, and other correspondence concerning the activities performed pursuant to this Order shall be directed through the Project Coordinators.

VI. ORDER

Based on the foregoing Findings and pursuant to Code of Alabama 1975, §§ 22-22A-

5(10), 22-22A-5(18), 22-30-20 and 22-30-19(a) and (b), as amended, it is hereby ordered:

A. Applicability

The Conditions of this Part apply to:

1. The solid waste management units (SWMUs) and areas of concern (AOCs) identified in Appendix A-1, which require a RCRA Facility Investigation (RFI);
2. The SWMUs identified in Appendix A-2, which require no further investigation under this Order at this time;
3. The SWMUs and AOCs identified in Appendix A-3, which require confirmatory sampling;
4. Any additional SWMUs or AOCs discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means; and
5. Contamination beyond the Facility boundary, if applicable. WCB shall implement corrective actions beyond the Facility boundary where necessary to protect human health and the environment, unless WCB demonstrates to the satisfaction of the Department that, despite WCB's best efforts, as determined by the Department, WCB was unable to obtain the necessary permission to undertake such actions. WCB is not relieved of all responsibility to clean up a release that has migrated beyond the Facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis. Assurances of financial responsibility for completion of such off-site corrective action will be required.

B. Notification and Assessment Requirements for Newly Identified SWMUs and AOCs

1. WCB shall notify the Department in writing, within fifteen (15) calendar days of discovery, of any additional AOCs as discovered under Condition VI.A.4. The notification shall include, at a minimum, the location of the AOC and all available information pertaining to the nature of the release (e.g., media affected, hazardous constituents released, magnitude of release, etc.). If the Department

determines that further investigation of an AOC is required, the Order will be modified in accordance with ADEM Admin. Code R. 335-14-8-.04(2).

2. WCB shall notify the Department in writing, within fifteen (15) calendar days of discovery, of any additional SWMU as discovered under Condition VI.A.4.

3. WCB shall prepare and submit to the Department, within ninety (90) calendar days of notification, a SWMU Assessment Report (SAR) for each SWMU identified under Condition VI.B.1. At a minimum, the SAR shall provide the following information:

- a. Location of unit(s) on a topographic map of appropriate scale such as required under ADEM Admin. Code R. 335-14-8-.02(5)(b)19.
- b. Designation of type and function of unit(s).
- c. General dimensions, capacities and structural description of unit(s) (supply any available plans/drawings).
- d. Dates that the unit(s) was operated.
- e. Specification of all wastes that have been managed at/in the unit(s) to the extent available. Include any available data on hazardous constituents in the wastes.
- f. All available information pertaining to any release of hazardous waste or hazardous constituents from such unit(s) (to include groundwater data, soil analyses, air, and/or surface water data).

4. Based on the results of the SAR, the Department shall determine the need for further investigations at the SWMUs covered in the SAR. If the Department determines that such investigations are needed, WCB shall be required to prepare a plan for such investigations as outlined in Condition VI.F.1.b. or VI.E.1.

C. Notification Requirements For Newly Discovered Releases at Previously Identified SWMUs or AOCs

1. WCB shall notify the Department in writing of any newly discovered release(s) of hazardous waste or hazardous constituents discovered during the course of groundwater monitoring, field investigations, environmental audits, or

other means, within fifteen (15) calendar days of discovery. Such newly discovered releases may be from SWMUs or AOCs identified in Condition VI.A.2. or SWMUs or AOCs identified in Condition VI.A.4. for which further investigation under Condition VI.B.4. was not required.

2. If the Department determines that further investigation of the SWMUs or AOCs is needed, WCB shall be required to prepare a plan for such investigations as outlined in Condition VI.F.1.b.

D. SUBMISSION OF PHASE I RFI REPORT

The Department and WCB have determined that previous investigations may or may not be sufficient to fulfill at least, in part, the investigatory segments of the Order. Within 150 days of the effective date of this Order, WCB shall submit to ADEM a Phase I RFI Report as specified in Condition VI.F. of this Order describing all previous investigations and actions which have been undertaken to address the SWMUs and AOCs identified in Appendices A-1 and A-3. This report shall describe current conditions for said SWMUs and AOCs, shall identify any new SWMUs and/or AOCs (or new releases from previously identified SWMUs and AOCs listed in Appendix A-3), and shall identify additional investigations, remedies or other measures necessary to fulfill the requirements of this Order, and shall be followed by subsequent information as deemed necessary by the Department or WCB.

E. CONFIRMATORY SAMPLING (CS)

1. WCB shall prepare and submit to the Department, within sixty (60) calendar days of notification by the Department, a Confirmatory Sampling (CS) Workplan to determine any release from SWMUs or AOCs identified in Condition VI.A.3. and Appendix A-3 or Condition VI.B.4. The CS Workplan shall include schedules of implementation and completion of specific actions necessary to determine whether or not a release has occurred. It should also address applicable requirements and affected media.

2. The CS Workplan must be approved by the Department, in writing, prior to implementation. The Department shall specify the start date of the CS

Workplan schedule in the letter approving the CS Workplan. If the Department disapproves the CS Workplan, the Department shall either:

- a. notify WCB in writing of the deficiencies in the CS Workplan and specify a due date for submission of a revised CS Workplan,
 - b. revise the CS Workplan and notify WCB of the revisions, or
 - c. conditionally approve the CS Workplan and notify WCB of the conditions.
3. WCB shall implement the confirmatory sampling in accordance with the approved CS Workplan.
 4. WCB shall prepare and submit to the Department in accordance with the schedule in the approved CS Workplan, a Confirmatory Sampling (CS) Report identifying those SWMUs or AOCs listed in Condition VI.A.3. that have released hazardous waste or hazardous constituents into the environment. The CS Report shall include all data, including raw data, and a summary and analysis of the data, that supports the above determination.
 5. Based on the results of the CS Report, the Department shall determine the need for further investigations at the SWMUs or AOCs covered in the CS Report. If the Department determines that such investigations are needed, WCB shall be required to prepare a plan for such investigations as outlined in Condition VI.F.1.b. The Department will notify WCB of any no further action decision.

F. RCRA FACILITY INVESTIGATION (RFI)

1. RFI Workplan(s)
 - a. [Reserved]
 - b. WCB shall prepare and submit to the Department, within ninety (90) calendar days of notification by the Department, an RFI Workplan for those units identified under Condition VI.B.4, Condition VI.C.2, or Condition VI.E.5. The RFI Workplan(s) shall be developed to meet the requirements of Condition VI.F.1.c.
 - c. The RFI Workplan(s) shall meet the requirements of Appendix B. The RFI Workplan(s) shall include schedules of implementation and

completion of specific actions necessary to determine the nature and extent of contamination and the potential pathways of contaminant releases to the air, land, surface water, and groundwater. WCB must provide sufficient justification and associated documentation that a release is not probable or has already been characterized if a unit or a media/pathway associated with a unit (groundwater, surface water, soil, subsurface gas, or air) is not included in the RFI Workplan(s). Such deletions of a unit, media or pathway from the RFI(s) are subject to the approval of the Department. WCB shall provide sufficient written justification for any omissions or deviations from the minimum requirements of Appendix B. Such omissions or deviations are subject to the approval of the Department. In addition, the scope of the RFI Workplan(s) shall include all investigations necessary to ensure compliance with ADEM Admin. Code R. 335-14-5-.06(12)(c).

d. The RFI Workplan(s) must be approved by the Department, in writing, prior to implementation. The Department shall specify the start date of the RFI Workplan schedule in the letter approving the RFI Workplan(s). If the Department disapproves the RFI Workplan(s), the Department shall either:

- i. notify WCB in writing of the deficiencies in the RFI Workplan and specify a due date for submission of a revised RFI Workplan,
- ii. revise the RFI Workplan and notify WCB of the revisions and the start date of the schedule within the approved RFI Workplan, or,
- iii. conditionally approve the RFI Workplan and notify WCB of the conditions.

2. RFI Implementation

WCB shall implement the RFI(s) in accordance with the approved RFI Workplan(s) and Appendix B. WCB shall notify the Department at least twenty

(20) days prior to any sampling activity.

3. RFI Reports

a. If the time required to conduct the RFI(s) is greater than one hundred eighty (180) calendar days, WCB shall provide the Department with quarterly RFI Progress Reports (90 day intervals) beginning ninety (90) calendar days from the start date specified by the Department in the RFI Workplan approval letter. The Progress Reports shall contain the following information at a minimum:

- i. A description of the portion of the RFI completed;
- ii. Summaries of findings;
- iii. Summaries of any deviations from the approved RFI Workplan during the reporting period;
- iv. Summaries of all contacts with local community public interest groups or State government;
- v. Summaries of any problems or potential problems encountered during the reporting period;
- vi. Actions taken to rectify problems;
- vii. Changes in relevant personnel;
- viii. Projected work for the next reporting period; and
- ix. Copies of daily reports, inspection reports, laboratory/monitoring data, etc.

b. WCB shall prepare and submit to the Department Draft and Final RCRA Facility Investigation Report(s) for the investigations conducted pursuant to the RFI Workplan(s) submitted under Condition VI.F.1. The Draft RFI Report(s) shall be submitted to the Department for review in accordance with the schedule in the approved RFI Workplan(s). The Final RFI Report(s) shall be submitted to the Department within thirty (30) calendar days of receipt of the Department comments on the Draft RFI Report. The RFI Report(s) shall include an analysis and summary of all required investigations of SWMUs and AOCs and their results. The

- summary shall describe the type and extent of contamination at WCB, including sources and migration pathways, identify all hazardous constituents present in all media, and describe actual or potential receptors. The RFI Report(s) shall also describe the extent of contamination (qualitative/quantitative) in relation to background levels indicative of the area. If the Draft RFI Report is a summary of the initial phase investigatory work, the report shall include a workplan for the final phase investigatory actions required based on the initial findings. Approval of the final phase workplan shall be carried out in accordance with Condition VI.F.1.d. The objective of this task shall be to ensure that the investigation data are sufficient in quality (e.g., quality assurance procedures have been followed) and quantity to describe the nature and extent of contamination, potential threat to human health and/or the environment, and to support a Corrective Measures Study, if necessary.
- c. WCB shall prepare and submit to the Department along with the Draft and Final RFI Report(s), action levels for each of the hazardous constituents reported in Condition VI.F.3.b. Action levels shall be calculated as specified in Appendix F of this Order.
 - d. The Department will review the Final RFI Report(s), including the action levels described in Condition VI.F.3.c., and notify WCB of the need for further investigative action and/or the need for a Corrective Measures Study to meet the requirements of VI.H and ADEM Admin. Code R. 335-14-5-.06(12). The Department will notify WCB of any no further action decision. Any further investigative action required by the Department shall be prepared and submitted in accordance with a schedule specified by the Department and approved in accordance with Condition VI.F.1.d. The Department may require a Corrective Measures Study if action levels are exceeded.

G. Interim Measures (IM)

- 1. IM Workplan(s)
 - a. Upon notification by the Department, WCB shall prepare and

submit an Interim Measures (IM) Workplan for any SWMU or AOC which the Department determines is necessary. IM are necessary in order to minimize or prevent the further migration of contaminants and limit human and environmental exposure to contaminants while long-term corrective action remedies are evaluated and, if necessary, implemented. The IM Workplan shall be submitted within thirty (30) calendar days of such notification and shall include the elements listed in VI.G.1.b. Such IM may be conducted concurrently with investigations required under the terms of this Order. WCB may initiate IM by submitting an IM Workplan for approval and reporting in accordance with the requirements under Condition VI.G.

- b. The IM Workplan shall ensure that the IM are designed to mitigate any current or potential threat(s) to human health or the environment and is consistent with and integrated into any long-term solution at the Facility. The IM Workplan shall include: the IM objectives, procedures for implementation (including any designs, plans, or specifications), and schedules for implementation.
 - c. The IM Workplan must be approved by the Department, in writing, prior to implementation. The Department shall specify the start date of the IM Workplan schedule in the letter approving the IM Workplan. If the Department disapproves the IM Workplan, the Department shall either:
 - i. notify WCB in writing of the IM Workplan's deficiencies and specify a due date for submission of a revised IM Workplan,
 - ii. revise the IM Workplan and notify WCB of the revisions and the start date of the schedule within the approved IM Workplan, or,
 - iii. conditionally approve the IM Workplan and notify WCB of the conditions.
2. IM Implementation
- a. WCB shall implement the IM in accordance with the approved IM

Workplan.

b. WCB shall give notice to the Department as soon as possible of any planned changes, reductions or additions to the IM Workplan.

c. Final approval of corrective action required under ADEM Admin. Code R. 335-14-5-.06(12) which is achieved through IM shall be in accordance with ADEM Admin. Code R. 335-14-8-.04(2) and Condition VI.G.

3. IM Reports

a. If the time required for completion of IM is greater than one year, WCB shall provide the Department with progress reports at intervals specified in the approved workplan. The Progress Reports shall contain the following information at a minimum:

- i. A description of the portion of the IM completed;
- ii. Summaries of any deviations from the IM Workplan during the reporting period;
- iii. Summaries of any problems or potential problems encountered during the reporting period;
- iv. Projected work for the next reporting period; and
- v. Copies of laboratory/monitoring data.

b. WCB shall prepare and submit to the Department, within ninety (90) calendar days of completion of IM conducted under Condition VI.G, an Interim Measures (IM) Report. The IM Report shall contain the following information at a minimum:

- i. A description of IM implemented;
- ii. Summaries of results;
- iii. Summaries of all problems encountered;
- iv. Summaries of accomplishments and/or effectiveness of IM; and
- v. Copies of all relevant laboratory/monitoring data, etc. in accordance with Condition I.D.10.

H. Corrective Measures Study (CMS)

1. CMS Workplan(s)

a. WCB shall prepare and submit a CMS Workplan for those units requiring a CMS within ninety (90) calendar days of notification by the Department that a CMS is required. This CMS Workplan shall be developed to meet the requirements of Condition VI.H.1.b.

b. The CMS Workplan shall meet the requirements of Appendix C at a minimum. The CMS Workplan shall include schedules of implementation and completion of specific actions necessary to complete a CMS. WCB must provide sufficient justification and/or documentation for any unit deleted from the CMS Workplan. Such deletion of a unit is subject to the approval of the Department. The CMS shall be conducted in accordance with the approved CMS Workplan. WCB shall provide sufficient written justification for any omissions or deviations from the minimum requirements of Appendix C. Such omissions or deviations are subject to the approval of the Department. The scope of the CMS Workplan shall include all investigations necessary to ensure compliance with ADEM Admin. Code R. 335-14-5-.06(12) and 335-14-8-.03(3)(b)2. WCB shall implement corrective actions beyond WCB boundary, as set forth in Condition VI.A.5.

c. The Department shall either approve or disapprove, in writing, the CMS Workplan. If the Department disapproves the CMS Workplan, the Department shall either:

i. notify WCB in writing of the deficiencies in the CMS Workplan and specify a due date for submittal of a revised CMS Workplan;

ii. revise the CMS Workplan and notify WCB of the revisions. This modified CMS Workplan becomes the approved CMS Workplan; or,

iii. conditionally approve the CMS Workplan and notify WCB

of the conditions.

2. CMS Implementation

WCB shall begin to implement the CMS according to the schedules specified in the CMS Workplan, no later than fifteen (15) calendar days after WCB has received written approval from the Department for the CMS Workplan. Pursuant to Order Condition VI.H.1.b. the CMS shall be conducted in accordance with the approved CMS Workplan.

3. CMS Reports

a. WCB shall prepare and submit to the Department a draft and final CMS Report for the study conducted pursuant to the approved CMS Workplan. The draft CMS Report shall be submitted to the Department in accordance with the schedule in the approved CMS Workplan. The final CMS Report shall be submitted to the Department within thirty (30) days of receipt of the Department's comments on the draft CMS Report. The CMS Report shall summarize any bench-scale or pilot tests conducted. The CMS Report must include an evaluation of each remedial alternative. If a remedial alternative requires the use of a CAMU, the CMS report shall include all information necessary to establish and implement the CAMU. The CMS Report shall present all information gathered under the approved CMS Workplan. The CMS Final Report must contain adequate information to support the Department's decision on the recommended remedy, described under Order Condition VI.I.

b. If the Department determines that the CMS Final Report does not fully satisfy the information requirements specified under Order Condition VI.I.3.a, the Department may disapprove the CMS Final Report. If the Department disapproves the CMS Final Report, the Department shall notify WCB in writing of deficiencies in the CMS Final Report and specify a due date for submittal of a revised CMS Final Report. The Department will notify WCB of any no further action decision.

c. As specified under Order Condition VI.H.3.b, based on

preliminary results and the CMS Final Report, the Department may require WCB to evaluate additional remedies or particular elements of one or more proposed remedies.

I. Remedy Approval and Order Modification

1. A remedy shall be selected from the remedial alternatives evaluated in the CMS. It will be based at a minimum on protection of human health and the environment, as per specific site conditions, existing regulations, and guidance. The selected remedy may include any interim measures implemented to date.
2. Pursuant to ADEM Admin. Code R. 335-14-8-.04(2), a modification of the Corrective Action schedule will be initiated by the Department after recommendation of a remedy under Condition VI.J.1. This modification will serve to incorporate a final remedy, including a CAMU if necessary, into this Order.
3. Within one hundred and twenty (120) calendar days after this Order has been modified, WCB shall demonstrate financial assurance for completing the approved remedy.

J. Modification of the Corrective Action Schedule of Compliance

1. If at any time the Department determines that modification of the Corrective Action Schedule of Compliance is necessary, the Department may initiate a modification to the Schedule of Compliance (Appendix D).
2. Modifications that are initiated and finalized by the Department will be in accordance with the applicable provisions of ADEM Admin. Code R. 335-14-8. WCB may also request a Order modification in accordance with ADEM Admin. Code R. 335-14-8 to change the Schedule of Compliance.

K. Imminent Hazards

1. WCB shall report to the Department any imminent or existing hazard to public health or the environment from any release of hazardous waste or hazardous constituents. Such information shall be reported orally within 24 hours from such time WCB becomes aware of the circumstances. This report shall include the information specified under Condition XIII.1.

2. A written report shall also be provided to the Department within fifteen (15) calendar days of the time WCB becomes aware of the circumstances. The written report shall contain the information specified under Condition XIII.1.; a description of the release and its cause; the period of the release; whether the release has been stopped; and if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the release.

L. Workplan and Report Requirements

1. All workplans and schedules shall be subject to approval by the Department prior to implementation to assure that such workplans and schedules are consistent with the requirements of this Order and with applicable regulations and guidance. WCB shall revise all submittals and schedules as specified in writing by the Department. Upon approval WCB shall implement all workplans and schedules as written.

2. All workplans and reports shall be submitted in accordance with the approved schedule. Extensions of the due date for submittals may be granted by the Department based on WCB's demonstration that sufficient justification for the extension exists.

3. If WCB at any time determines that the SAR information required under Condition VI.B., the CS Workplan under Condition VI.E., or RFI Workplan(s) required under Condition VI.F. no longer satisfy the requirements of ADEM Admin. Code R. 335-14-5-.06(12) or this Order for prior or continuing releases of hazardous waste or hazardous constituents from solid waste management units and/or areas of concern, WCB shall submit an amended document to the Department within ninety (90) calendar days of such determination.

4. All reports shall be signed and certified in accordance with ADEM Admin. Code R. 335-14-8-.02(2).

5. Two (2) copies of all reports and workplans shall be provided by WCB to the Department in care of the Land Division Chief at the following address:

Chief, Land Division

Alabama Department of Environmental Management

P.O. Box 301463

Montgomery, Alabama Zip 36130-1463

VII. Approval/Disapproval of Submittals

The Department will review the workplans, reports, schedules, and other documents ("submittals") which require the Department approval in accordance with the conditions of this Order. The Department will notify WCB in writing of any submittal that is disapproved, and the basis for the disapproval. Condition XIV. shall apply only to submittals that have been disapproved and revised by the Department, or that have been disapproved by the Department, then revised and resubmitted by WCB, and again disapproved by the Department.

VIII. Proposed Contractor/Consultant

All work performed pursuant to this Order shall be under the direction and supervision of a professional engineer, hydrologist, geologist, or environmental scientist, with expertise in hazardous waste cleanup. WCB's contractor or consultant shall have the technical expertise sufficient to adequately perform all aspects of the work for which it is responsible. Within 30 days of the effective date of this Order, WCB shall notify the ADEM Project Coordinator in writing of the name, title, and qualifications of the engineer, hydrologist, geologist, or environmental scientist and of any contractors or consultants and their supervisory personnel to be used in carrying out the terms of this Order. WCB or its successor in interest and assigns of the property shall identify whether any contractor is on the List of Parties Excluded from Federal Procurement or Non-Procurement Programs. Any replacement contractor's and/or consultant's name, title, and qualifications shall be given to ADEM within 30 days of a change.

IX. Quality Assurance

1. WCB shall follow EPA guidance for sampling and analysis. Workplans 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 workplans must be

approved by ADEM prior to implementation; must be documented, including reasons for the deviations; and must be reported in the applicable report (e.g., RFI).

2. The name(s), addresses, and telephone numbers of the analytical laboratories WCB proposes to use must be specified in the applicable workplan(s).

3. All workplans 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).

4. WCB shall monitor to ensure that high quality data is obtained by its consultant or contract laboratories. WCB shall ensure that laboratories used by WCB 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 Update IIA, September 1994)," or other methods deemed satisfactory to ADEM which ADEM shall specify in writing. If methods other than EPA/ADEM methods are to be used, WCB shall specify all such protocols in the applicable workplan (e.g., RFI). ADEM may reject any data that does not meet the requirements of the approved workplan or EPA/ADEM analytical methods and may require resampling and additional analysis.

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

X. Sampling and Data/Document Availability

1. WCB shall submit to ADEM upon request the results of all sampling

and/or tests or other data generated by or on behalf of WCB, in accordance with the requirements of this Order.

2. Notwithstanding any other provisions of this Order, ADEM retains all of its information gathering and inspection authorities and rights, including the right to bring enforcement actions related thereto, under AHWMMMA, RCRA, and any other applicable statutes or regulations.

3. WCB shall notify ADEM at least 5 days prior to beginning each separate phase of field work approved under any workplan required by this Order. If WCB believes it must commence emergency field activities without delay, WCB may seek emergency telephone authorization from the ADEM Project Coordinator or, if the ADEM Project Coordinator is unavailable, his/her immediate supervisor, to commence such activities immediately. At the request of ADEM, WCB shall provide or allow ADEM or its authorized representative to take split or duplicate samples of all samples collected by WCB pursuant to this Order. Similarly, at the request of WCB, ADEM shall allow WCB or its authorized representative(s) to take split or duplicate samples of all samples collected by ADEM under this Order.

4. WCB may assert a business confidentiality claim covering all or part of any information submitted to ADEM pursuant to this Order. Any assertion of confidentiality must be accompanied by information that satisfies §20-30-18 of AHWMMMA or such claim shall be deemed waived. Information determined by ADEM to be confidential shall be disclosed only to the extent Ordered by §20-30-18 of AHWMMMA. If no such confidentiality claim accompanies the information when it is submitted to ADEM, the information may be made available to the public by ADEM without further notice to WCB. WCB agrees not to assert any confidentiality claim with regard to any physical or analytical data.

XI. Access

1. Inspection and Entry

WCB shall allow duly designated officers and employees of the Department, or an authorized representative, upon the presentation of credentials and other

documents as may be required by law, to (ADEM Admin. Code R. 335-14-8-.03(1)(i)):

- a. Enter at reasonable times upon WCB's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
 - d. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the AHWMMMA, any substances or parameters at any location. WCB shall have the opportunity to split samples during sampling.
2. To the extent that work being performed pursuant to this Order must be done beyond the Facility property boundary, WCB shall use its best efforts to obtain access agreements necessary to complete work required by this Order from the present owner(s) of such property within 30 days of the date that the need for access becomes known to WCB. Best efforts as used in this paragraph shall include, at a minimum, a certified letter from WCB to the present owner(s) of such property requesting access agreement(s) to allow WCB and its authorized representatives to access such property, and the payment of reasonable compensation in consideration of granting access. Each access agreement shall provide for access by ADEM and its representatives. WCB shall insure that ADEM's Project Coordinator has a copy of any access agreement(s). In the event that agreements for access are not obtained within 30 days of approval of any workplan for which access is required, or of the date that the need for access became known to WCB, WCB shall notify ADEM in writing within 14 days thereafter of both the efforts undertaken to obtain access and the failure to obtain access agreements. ADEM may, at its discretion, assist WCB in obtaining access.

In the event ADEM obtains access, WCB shall undertake ADEM-approved work on such property.

3. WCB agrees to indemnify the State of Alabama as provided in Section XXI. Indemnification, for any and all claims arising from activities on such property except for those claims from willful or negligent acts or omissions of any except for those claims arising from the willful or negligent acts or omissions of any State of Alabama personnel, employees or agents of the State of Alabama personnel, employees, or agents.

4. Nothing in this section shall be construed to limit or otherwise affect WCB's liability and obligation to perform corrective action including corrective action beyond the Facility boundary, except for those actions that can not be accomplished due to the lack of access.

5. Nothing in this section limits or otherwise affects ADEM's right of access and entry pursuant to applicable law, including AHWMMMA, and RCRA.

XII. Record Preservation

1. WCB shall retain, during the pendency of this Order and for a minimum of 3 years after its termination, all data, records, and documents now in its possession or control or which come into its possession or control which relate in any way to this Order or to hazardous waste management and/or disposal at WCB. WCB shall notify ADEM in writing 30 days prior to the destruction of any such records, and shall provide ADEM with the opportunity to take possession of any such records. Such written notification shall reference the effective date, caption, and docket number of this Order and shall be addressed to:

Chief, Land Division

Alabama Department of Environmental Management

P. O. Box 301463

Montgomery, AL 36130-1463

2. WCB further agrees that within 30 days of retaining or employing any agent, consultant, or contractor for the purpose of carrying out the terms of this Order, WCB will enter into an agreement with any such agents, consultants, or

contractors whereby such agents, consultants, and/or contractors will be required to provide WCB a copy of all documents produced pursuant to this Order.

3. All documents pertaining to this Order shall be stored by WCB in a centralized location at the Facility, or elsewhere as the parties agree, to afford ease of access by ADEM or its representatives.

XIII. Reporting and Documentation

1. 24-Hour Reporting

a. WCB shall report to the Department any noncompliance with the Order which may endanger human health or the environment. Any such information shall be reported orally within 24 hours from the time WCB becomes aware of the circumstances. This report shall include the following:

(I) Information concerning the release of any hazardous waste which may endanger public drinking water supplies; and

(II) Information concerning the release or discharge of any hazardous waste, or hazardous waste constituents, or of a fire or explosion at the Facility, which could threaten the environment or human health outside the Facility.

b. The description of the occurrence and its cause shall include:

(I) Name, address, and telephone number of the owner or operator;

(II) Name, address, telephone number, and EPA Identification Number of the Facility;

(III) Date, time, and type of incident;

(IV) Name and quantity of material(s) involved;

(V) The extent of injuries, if any;

(VI) An assessment of actual or potential hazards to the environment and human health outside the Facility, where this is applicable; and

(VII) Estimated quantity and disposition of recovered material

that resulted from the incident.

c. A written submission shall also be provided within 5 days of the time WCB becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the periods of noncompliance (including exact dates and times); whether the noncompliance has been corrected, and if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

2. WCB shall provide ADEM with quarterly progress reports not otherwise specified in this Order, if required by the Department. Such progress reports are due on the fifteenth day of the first month of each quarter. The progress reports shall conform to requirements in the relevant scope of work contained in the Attachments to this Consent Order. ADEM may reasonably adjust the frequency of progress reports to be consistent with site-specific activities.

3. Two copies of all documents submitted pursuant to this Order shall be in writing and shall be hand delivered, sent by certified mail, return receipt requested, or by overnight express mail to:

a. Documents to be submitted to the ADEM should be sent to:

Chief, Land Division

Alabama Department of Environmental Management

P. O. Box 301463

Montgomery, AL 36130-1463

b. Documents to be submitted to WCB should be sent as follows:

One copy to:

WCB Project Coordinator

309 Williamson Avenue

Opelika, AL 36803

One copy to:

Mr. Don Doty

Site Manager

Charbroil, a Division of W.C. Bradley Company

P.O. Box 1240

Columbus, GA 31902-1240

Other addresses can also be designated by the Project Coordinator. All documents submitted pursuant to this Order should be printed on recycled paper and should be copied double-sided whenever practicable.

3. Any report or other document with the exception of quarterly progress reports submitted by WCB pursuant to this Order which makes any representation concerning WCB's compliance or noncompliance with any requirement of this Order shall be certified by a responsible corporate officer of WCB or a duly authorized representative. A responsible corporate officer means: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation.

The certification required by paragraph three (3) above, shall be in the following form:

I certify under penalty of law that this document and all attachments were prepared in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature:

Name:

Title:

Date:

XIV. Dispute Resolution

1. The parties shall use their best efforts to informally and in good faith

resolve all disputes or differences of opinion. The parties agree that the procedures contained in this section are the sole procedures for resolving disputes arising under this Order. If WCB fails to follow any of the requirements contained in this section then it shall have waived its right to further consideration of the disputed issue.

2. If WCB disagrees, in whole or in part, with any written decision ("Initial Written Decision") by ADEM pursuant to this Order, WCB's Project Coordinator shall notify the ADEM Project Coordinator of the dispute. The Project Coordinators shall attempt to resolve the dispute informally.

3. If the Project Coordinators cannot resolve the dispute informally, WCB may pursue the matter formally by placing its objections in writing. WCB's written objections must be directed to the ADEM Project Coordinator. This written notice must be mailed (via certified mail) to the ADEM Project Coordinator within 21 days of WCB's receipt of the Initial Written Decision. This period may be extended by agreement of the parties if informal negotiations are proceeding in good faith. WCB's written objection must set forth the specific points of the dispute, the position WCB claims should be adopted as consistent with the requirements of this Order, the basis for WCB's position, and any matters which it considers necessary for ADEM's determination.

4. ADEM and WCB shall have 14 days from ADEM's receipt of WCB's written objections to attempt to resolve the dispute through formal negotiations. This time period may be extended by ADEM for good cause. During such time period ("Negotiation Period"), WCB may request a conference with the ADEM Project Coordinator to discuss the dispute and WCB's objections. ADEM agrees to confer in person or by telephone in order to seek resolution of to resolve any such disagreement with WCB as long as WCB's request for a conference will not extend the Negotiation Period. At the end of the negotiation period, ADEM will provide to WCB its written decision on the dispute, which will include a response to WCB's position. If ADEM's written decision differs from WCB's position, ADEM will, when applicable, issue a Notice of Violation (NOV) to WCB that

sets out the following: the violation(s) in question.

5. If the parties are unable to reach an agreement within the Negotiation Period, WCB may request a hearing before the Environmental Management Commission to contest an NOV issued by the Department pursuant to Section 22-22A-7, Code of Alabama 1975, as amended. Accordingly, any request to the Commission to contest an NOV must be filed with the Commission within 15 days after notice to WCB of the NOV.

6. An order of the Environmental Management Commission may be appealed pursuant to the terms defined in Section 22-22A-7(6), Code of Alabama 1975, as amended.

XV. Force Majeure and Excusable Delay

1. Force majeure, for purposes of this Order, is defined as any event arising from causes not foreseen and beyond the control of WCB or any person or entity controlled by WCB, including but not limited to WCB's primary contractors, that delays or prevents the timely performance of any obligation under this Order despite WCB's best efforts to fulfill such obligation. The requirement that WCB exercise "best efforts to fulfill such obligation" shall include, but not be limited to, best efforts to anticipate potential force majeure events that would reasonably would be anticipated and address it before, during, and after its occurrence, such that any delay or prevention of performance is minimized to the extent reasonably possible. Force majeure does not include increased costs of the work to be performed under this Order, or financial inability to complete the work, work stoppages or other labor disputes.

2. If any event occurs or has occurred that may delay the performance of any obligation under this Order, whether or not caused by a force majeure event, WCB shall contact by telephone and communicate orally with ADEM's Project Coordinator or, in his or her absence, ADEM's alternate Project Coordinator or, in the event both of ADEM's designated representatives are unavailable, the Chief of the Land Division within 48 hours of when WCB first knew that the event will cause a delay. If WCB wishes to claim a force majeure event, then within 14 days

thereafter, WCB shall provide to ADEM in writing the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; all other obligations affected by the event, and what measures, if any, are taken or will be taken to minimize the effect of the event on those obligations; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; WCB's rationale for attributing such delay to a force majeure event if it intends to assert such a claim; and a statement as to whether, in the opinion of WCB, such event may cause or contribute to an endangerment to public health or the environment. WCB shall include with any notice all available documentation supporting its claim, if any, that the delay was attributable to a force majeure. Failure to comply with the above requirements shall preclude WCB from asserting any claim of force majeure for that event except that ADEM shall not determine that WCB waived any claim of force majeure based on WCB's inability to provide information which was not available to WCB at the time WCB gave notice of the force majeure event to ADEM. WCB shall be deemed to have notice of any circumstances of which its contractors had or should have had notice. except that ADEM shall not determine that

3. If ADEM determines that the delay or anticipated delay is attributable to a force majeure event, the time for performance of such obligation under this Order that is affected by the force majeure event will be extended by ADEM for such time as ADEM determines is necessary to complete such obligation. An extension of the time for performance of such obligation affected by the force majeure event shall not, of itself, extend the time for performance of any other obligation, unless WCB can demonstrate that more than one obligation was affected by the force majeure event. If ADEM determines that the delay or anticipated delay has been or will be caused by a force majeure event, ADEM will notify WCB in writing of the length of the extension, if any, for performance of such obligations affected by the force majeure event.

4. If ADEM disagrees with WCB's assertion of a force majeure event, ADEM will notify WCB in writing and WCB may elect to invoke the dispute

resolution provision, and shall follow the time frames set forth in Section XVI: Dispute Resolution. In any such proceeding, WCB shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a force majeure event, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that WCB complied with the requirements of this Section. If WCB satisfies this burden, the time for performance of such obligation will be extended by ADEM for a time equal to the force majeure delay.

XVI. Reservation of Rights

1. ADEM reserves all of its statutory and regulatory powers, authorities, rights, and remedies, both legal and equitable, which may pertain to WCB's failure to comply with any of the requirements of this Order, including without limitation the assessment of penalties under Code of Alabama 1975, as amended, §22-22A-5(18). This Order shall not be construed as a covenant not to sue, release, waiver, or limitation of any rights, remedies, powers, and/or authorities, civil or criminal, which ADEM has under AHWMMA, RCRA, CERCLA, or any other statutory, regulatory, or common law authority of the United States or the State of Alabama except that, to the extent that WCB is in compliance with the terms of this order, ADEM shall bring no action against WCB for activities covered under the terms of this Order.
2. ADEM reserves the right to disapprove of work performed by WCB pursuant to this Order and to order that WCB perform additional tasks consistent with the terms of this Order.
3. If ADEM determines that activities in compliance or noncompliance with this Order have caused or may cause a release of hazardous waste or hazardous constituent(s) which is a threat to human health and/or the environment, or that WCB is not capable of undertaking any of the work ordered, ADEM may order WCB to stop further implementation of this Order for such period of time as ADEM determines may be needed to abate any such release or threat and/or to

undertake any action which ADEM determines is necessary to abate such release or threat.

4. The parties acknowledge and agree that ADEM's approval of the SOW or any final workplan does not constitute a warranty or representation that the SOW or workplans will achieve the required cleanup or performance standards.

Compliance by WCB with the terms of this Order shall not relieve WCB of its obligations to comply with RCRA or any other applicable local, State, or federal laws and regulations.

5. In any subsequent administrative or judicial proceeding initiated by the State of Alabama for injunctive or other appropriate relief relating to WCB for violations associated with the performance or nonperformance of the terms of this Order, WCB shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by the State of Alabama in the subsequent proceeding were or should have been raised in the present matter.

6. Nothing in this Consent Order shall be considered an admission of liability on the part of WCB. This Consent Order shall not be admissible in any state or Federal judicial or administrative proceeding except proceedings to enforce this Consent Order. Further, WCB does not admit and expressly denies the statements of fact and conclusions of law expressed herein and reserves the right to contest same in any future administrative or judicial proceedings except proceedings to enforce this Consent Order.

XVII. Other Claims

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 hazardous constituents, hazardous substances, hazardous wastes, pollutants, or contaminants found at, taken to, or taken or migrating from WCB.

XVIII. Other Applicable Laws

All actions required to be taken pursuant to this Order shall be undertaken in accordance with the requirements of all applicable local, state, and Federal laws and regulations.

WCB shall obtain or cause its representatives to obtain all Orders and approvals necessary under such laws and regulations.

XIX. Indemnification of the State of Alabama

WCB agrees to indemnify and save and hold harmless the State of Alabama, its agencies, departments, agents, and employees, from any and all claims or causes of action arising solely from or on account of acts or omissions of WCB or its officers, employees, agents, independent contractors, and assigns in carrying out activities required by this Order.

This indemnification shall not be construed in any way as affecting or limiting the rights or obligations of WCB or the State of Alabama under their various contracts.

XX. Modification

1. This Order may only be modified by mutual agreement of ADEM and WCB. Any agreed modifications shall be in writing, be signed by both parties, shall have as their effective date the date on which they are signed by ADEM, and shall be incorporated into this Order.

2. Any requests for a compliance date modification or revision of an approved workplan requirement must be made in writing. Such requests must be timely and provide justification for any proposed compliance date modification or workplan revision. ADEM has no obligation to approve such requests, but if it does so, such approval must be in writing. Any approved compliance date or workplan modification shall be incorporated by reference into the Order.

XXI. Severability

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 remain in force and shall not be affected thereby.

XXII. Termination and Satisfaction

That upon concluding that all obligations have been fulfilled in accordance with

this Consent Order, WCB shall request and the Department shall, if it so finds, notify same in writing to WCB in the form of a certified letter.

XXIII. Submittal Summary

The following is a summary of the major deadlines required by this Order. To the extent that this section is inconsistent with any other section of the Order, such other section and not this summary shall apply.

<u>Section</u>	<u>Action</u>	<u>Due Date</u>
III	Provide a copy of Order to contractors, laboratories, and consultants	Within 30 days of issuance of Order or retention of person.
V	Designate a Project Coordinator, and notify ADEM in writing of the Project Coordinator it has selected.	Within 30 days of the effective date of this Order.
I	Notify ADEM orally and in writing of any new or additional information concerning a current or potential threat.	Orally within 48 hours of discovery and in writing, within 7 days.
XIII	Submit progress reports.	On the fifteenth day of the first month of each quarter on a quarterly schedule beginning with the fourth month following the effective date of the order.

VIII	Implement approved workplans.	Upon receipt of approval according to schedule contained in workplan.
VIII	Notify ADEM in writing of any contractor(s) or consultant(s).	Within 30 days of the effective date of this Order.
IX	Inform ADEM Project Coordinator which laboratories will be used.	Identify in applicable workplan.

XXIV. Effective Date

The effective date of this Order shall be seven days after WCB has received notice from ADEM that ADEM has signed the Order.

IT IS SO AGREED: WCB Alabama, Inc.

DATE: June 22, 1998

BY: Marvin F. Lieberman

NAME: 

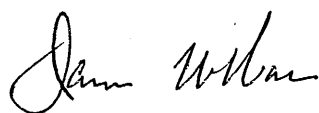
TITLE: Vice President



IT IS SO ORDERED: ALABAMA

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

DATE: 2 July 98

BY: 

James W. Warr, Director

APPENDIX A
SOLID WASTE MANAGEMENT UNIT SUMMARY

APPENDIX A-1

Solid Waste Management Unit (SWMU) and/or Area of Concern (AOC) numbers and descriptions correspond with those noted in the RCRA Facility Assessment (RFA) Report. Where discrepancies exist, the order will take precedence.

List of Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) requiring a RCRA Facility Investigation (RFI):

SWMU NUMBER	SWMU NAME
SWMU #32*	Bulk Product Storage Tank Farm Containment Area
SWMU #34*	Loading Dock Area Sump
SWMU #35*	Used Drum Storage Area
SWMU #45*	Used Corvus Oil Tank Containment Area

* Determination for further evaluation to be made after review of Phase I RFI Report specified in Condition VI.D.

APPENDIX A-2

Solid Waste Management Unit (SWMU) and/or Area of Concern (AOC) numbers and descriptions correspond with those noted in the RCRA Facility Assessment (RFA) Report. Where discrepancies exist, the order will take precedence.

List of Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) requiring no further action at this time:

SWMU NUMBER	SWMU NAME
SWMU #1	Coating Line 1-Spray Booth Water Curtains
SWMU #2	Coating Line 2-Spray Booth Water Curtains
SWMU #3	Coating Line 1-Waste Paint Drums SAA
SWMU #4	Coating Line 2-Waste Paint Drums SAA
SWMU #7	Coating Line 3-Waste Solids Drums SAA
SWMU #8	Coating Line 1-Nozzle Wash Solvent Waste Buckets SAA
SWMU #9	Coating Line 2-Nozzle Wash Solvent Waste Buckets SAA
SWMU #10	Coating Line 3-Nozzle Wash Solvent Waste Buckets SAA
SWMU #11	Coating Line 1-Part Wash/Rinse Tank System
SWMU #12	Coating Line 2-Part Wash/Rinse Tank System
SWMU #13	Coating Line 3-Part Wash/Rinse Tank System
SWMU #16	Coating Line 3-Containment Trench & Sump
SWMU #17	Coating Line 1-Drying Oven
SWMU #18	Coating Line 2-Drying Oven
SWMU #19	Coating Line 3-Drying Oven
SWMU #20	Waste Paint Hopper
SWMU #26	Waste Incinerator
SWMU #27	Orbatron Containment Trench & Sump System
SWMU #30	Orbatron Water Treatment Plant
SWMU #31	Scrap Metal Rolloff Boxes
SWMU #33	Trash & Cardboard Rolloff Boxes
SWMU #37	Wastewater Treatment Plant
SWMU #38	Waste Oil Tank
SWMU #39	Truck Wash Containment System
SWMU #44	Urethane Molding SAA

APPENDIX A-3

Solid Waste Management Unit (SWMU) and/or Area of Concern (AOC) numbers and descriptions correspond with those noted in the RCRA Facility Assessment (RFA) Report. Where discrepancies exist, the order will take precedence.

List of Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) requiring confirmatory sampling.

SWMU NUMBER	SWMU NAME
SWMU #5*	Coating Line 1-Waste Solids Drums SAA
SWMU #6*	Coating Line 2-Waste Solids Drums SAA
SWMU #14*	Coating Line 1-Containment Trench**
SWMU #15*	Coating Line 2-Containment Trench**
SWMU #21*	Storm Sewer System**
SWMU #23*	Chrome Plating Process Area
SWMU #24*	Caustic Stripper System**
SWMU #25*	Caustic Stripper Containment Trench System**
SWMU #28*	Orbatron Pit**
SWMU #29*	Waste Orbatron Storage Area**
SWMU #36*	Temporary Excavated Soil Pile Area
SWMU #40*	Hazardous Waste Storage Area
SWMU #41*	Supertron SAA
SWMU #43*	Coating Line/Caustic Stripper Sump**
SWMU #46*	Former Hazardous Waste Storage Area
AOC A*	Mill Scale Pile

* Determination for further evaluation to be made after review of Phase I RFI Report specified in Condition VI.D.

**Structural Integrity Test

APPENDIX A-4

Solid Waste Management Unit (SWMU) and/or Area of Concern (AOC) numbers and descriptions correspond with those noted in the RCRA Facility Assessment (RFA) Report. Where discrepancies exist, the order will take precedence.

List of Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) closed or closing under approved AHWMMMA closure plans.

SWMU NUMBER	SWMU NAME
SWMU #22	Chrome Plating Waste Tanks Area

APPENDIX B

RCRA FACILITY INVESTIGATION (RFI) WORKPLAN OUTLINE

APPENDIX B

RCRA FACILITY INVESTIGATION (RFI) WORKPLAN OUTLINE

I. RFI WORKPLAN REQUIREMENTS

The Facility shall prepare a RCRA Facility Investigation (RFI) Workplan that meets the requirements of Part II of this appendix and the RFI Guidance, EPA-530/SW-89-031. This workplan shall also include the development of the following plans, which shall be prepared concurrently:

A. Project Management Plan

The Facility shall prepare a Project Management Plan which will include a discussion of the technical approach, schedules and personnel. The Project Management Plan will also include a description of qualifications of personnel performing or directing the RFI, including contractor personnel. This plan shall also document the overall management approach to the RCRA Facility Investigation.

B. Sampling and Analysis Plan(s)

The Facility shall prepare a plan to document all monitoring procedures: field sampling, sampling procedures and sample analysis performed during the investigation to characterize the environmental setting, source, and releases of hazardous constituents, so as to ensure that all information and data are valid and properly documented. The Sampling Strategy and Procedures shall be in accordance with EPA Region IV Environmental Compliance Branch's Standard Operating Procedure and Quality Assurance Manual (SOP) (most recent version). Any deviations from this reference must be requested by the applicant and approved by ADEM. The Sampling and Analysis Plan must specifically discuss the following unless the SOP procedures are specifically referenced.

1. Sampling Strategy

- a. Selecting appropriate sampling locations, depths, etc.;
- b. Obtaining all necessary ancillary data;
- c. Determining conditions under which sampling should be conducted;
- d. Determining which media are to be sampled (e.g., groundwater, air, soil, sediment, subsurface gas);
- e. Determining which parameters are to be measured and where;
- f. Selecting the frequency of sampling and length of sampling period;
- g. Selecting the types of samples (e.g., composites vs. grabs) and number of samples to be collected.

2. Sampling Procedures

- a. Documenting field sampling operations and procedures, including;

- i. Documentation of procedures for preparation of reagents or supplies which become an integral part of the sample (e.g., filters, preservatives, and absorbing reagents);
 - ii. Procedures and forms for recording the exact location and specific considerations associated with sample acquisition;
 - iii. Documentation of specific sample preservation method;
 - iv. Calibration of field instruments;
 - v. Submission of field-biased blanks, where appropriate;
 - vi. Potential interferences present at the facility;
 - vii. Construction materials and techniques, associated with monitoring wells and piezometers;
 - viii. Field equipment listing and sampling containers;
 - ix. Sampling order; and
 - x. Decontamination procedures.
- b. Selecting appropriate sample containers;
 - c. Sampling preservation; and
 - d. Chain-of-custody, including:
 - i. Standardized field tracking reporting forms to establish sample custody in the field prior to shipment; and
 - ii) Pre-prepared sample labels containing all information necessary for effective sample tracking.

3. Sample Analysis

Sample analysis shall be conducted in accordance with SW-846: "Test Methods for Evaluating Solid Waste - Physical/Chemical Methods" (most recent version). The sample analysis section of the Sampling and Analysis Plan shall specify the following:

- a. Chain-of-custody procedures, including:
 - i. Identification of a responsible party to act as sampling custodian at the laboratory facility authorized to sign for incoming field samples, obtain documents of shipment, and verify the data entered onto the sample custody records;
 - ii. Provision for a laboratory sample custody log consisting of serially numbered standard lab-tracking report sheets; and

- iii. Specification of laboratory sample custody procedures for sample handling, storage, and dispersement for analysis.
- b. Sample storage;
- c. Sample preparation methods;
- d. Analytical Procedures, including:
 - i. Scope and application of the procedure;
 - ii. Sample matrix;
 - iii. Potential interferences;
 - iv. Precision and accuracy of the methodology; and
 - v. Method detection limits.
- e. Calibration procedures and frequency;
- f. Data reduction, validation and reporting;
- g. Internal quality control checks, laboratory performance and systems audits and frequency, including:
 - i. Method blank(s);
 - ii. Laboratory control sample(s);
 - iii. Calibration check sample(s);
 - iv. Replicate sample(s);
 - v. Matrix-spiked sample(s);
 - vii. Control charts;
 - viii. Surrogate samples;
 - ix. Zero and span gases; and
 - x. Reagent quality control checks.
- h. External quality control checks by the Department, including:
 - i. Spikes and blanks at sampling events for which the Department or its technical representative provides oversight; and
 - ii. The equivalent of a CLP data package for samples split with the Department or for which the Department specifically requests the package.

- i. Preventive maintenance procedures and schedules;
- j. Corrective action (for laboratory problems); and
- k. Turnaround time.

C. Data Management Plan

The Facility shall develop and initiate a Data Management Plan to document and track investigation data and results. This plan shall identify and set up data documentation materials and procedures, project file requirements, and project-related progress reporting procedures and documents. The plan shall also provide the format to be used to present the raw data and conclusions of the investigation.

1. Data Record

The data record shall include the following:

- a. Unique sample or field measurement code;
- b. Sampling or field measurement location and sample or measurement type;
- c. Sampling or field measurement raw data;
- d. Laboratory analysis ID number;
- e. Property or component measures; and
- f. Result of analysis (e.g. concentration).

2. Tabular Displays

The following data shall be presented in tabular displays:

- a. Unsorted (raw) data;
- b. Results for each medium, or for each constituent monitored;
- c. Data reduction for statistical analysis, as appropriate;
- d. Sorting of data by potential stratification factors (e.g., location, soil layer, topography);
and
- e. Summary data

3. Graphical Displays

The following data shall be presented in graphical formats (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transits, three dimensional graphs, etc.):

- a. Display sampling location and sampling grid:
- b. Indicate boundaries of sampling area, and area where more data are required;

- c. Display geographical extent of contamination;
- d. Illustrate changes in concentration in relation to distances from the source, time, depth or other parameters; and
- e. Indicate features affecting inter-media transport and show potential receptors.
- f. Fracture maps and rose diagrams as required by section II.A.1.a vi. of this appendix.

II. RCRA FACILITY INVESTIGATION (RFI) REQUIREMENTS

RCRA Facility Investigation:

The Facility shall conduct those investigations necessary to characterize the facility (Environmental Setting); define the source (Source Characterization); define the degree and extent of release of hazardous constituents (Contamination Characterization); and identify actual or potential receptors.

The investigations should result in data of adequate technical content and quality to support the development and evaluation of the corrective action plan if necessary. The information contained in previously developed documents such as a RCRA Part B order application and/or RCRA Section 3019 Exposure Information Report may be referenced as appropriate, but must be summarized in both the RFI Workplan and RFI Report.

All sampling and analyses shall be conducted in accordance with the Sampling and Analysis Plan. All sampling locations shall be documented in a log and identified on a detailed site map.

A. Environmental Setting

The Facility shall collect information to supplement and/or verify Part B information on the environmental setting at the facility. The Facility shall characterize the following as they relate to identified sources, pathways and areas of releases of hazardous constituents from Solid Waste Management Units.

1. Hydrogeology

The Facility shall conduct a program to evaluate hydrogeologic conditions at the facility. This program shall provide the following information:

- a. A description of the regional and facility specific geologic and hydrogeologic characteristics affecting groundwater flow beneath the facility, including:
 - i. Regional and facility specific stratigraphy: description of strata including strike and dip, identification of stratigraphic contacts;
 - ii. Structural geology: description of local and regional structural features (e. g., folding, faulting, tilting, jointing, etc.);
 - iii. Depositional history;
 - iv. Regional and facility specific groundwater flow patterns; and
 - v. Identification and characterization of areas and amounts of recharge and discharge, including surface groundwater seeps in and around the facility;

- b. An analysis of any topographic features that might influence the groundwater flow system.
- c. Based on field data, tests, and cores, a representative and accurate classification and description of the hydrogeologic units which may be part of the migration pathways at the facility (i. e., the aquifers and any intervening saturated and unsaturated units), including:
 - i. Hydraulic conductivity and porosity (total and effective);
 - ii. Lithology, grain size, sorting, degree of cementation;
 - iii. An interpretation of hydraulic interconnections between saturated zones; and
 - iv. The attenuation capacity and mechanisms of the natural earth materials (e. g., ion exchange capacity, organic carbon content, mineral content etc.).
- d. Based on data obtained from groundwater monitoring wells and piezometers installed upgradient and downgradient of the potential contaminant source, a representative description of water level or fluid pressure monitoring including:
 - i. Water-level contour and/or potentiometric maps;
 - ii. Hydrologic cross sections showing vertical gradients;
 - iii. The flow system, including the vertical and horizontal components of flow; and
 - iv. Any temporal changes in hydraulic gradients, for example, due to tidal or seasonal influences.
- e. A description of man-made influences that may affect the hydrology of the site, identifying:
 - i. Local water-supply and production wells with an approximate schedule of pumping; and
 - ii. Man-made hydraulic structures (pipelines, french drains, ditches, etc.).

2. Soils

The Facility shall conduct a program to characterize the soil and rock units above the water table in the vicinity of contaminant release(s). Such characterization may include, but not be limited to, the following types of information as appropriate:

- a. Surface soil distribution;
- b. Soil profile, including ASTM classification of soils;
- c. Transects of soil stratigraphy;
- d. Hydraulic conductivity (saturated and unsaturated);

- e. Relative permeability;
- f. Bulk density;
- g. Porosity;
- h. Soil sorption capacity;
- i. Cation exchange capacity (CEC);
- j. Soil organic content;
- k. Soil pH;
- l. Particle size distribution;
- m. Depth of water table;
- n. Moisture content;
- o. Effect of stratification on unsaturated flow;
- p. Infiltration;
- q. Evapotranspiration;
- r. Storage capacity;
- s. Vertical flow rate; and
- t. Mineral content.

3. Surface Water and Sediment

The Facility shall conduct a program to characterize the surface water bodies in the vicinity of the facility. Such characterization may include, but not be limited to, the following activities and information:

- a. Description of the temporal and permanent surface water bodies including:
 - i. For lakes and estuaries: location, elevation, surface area, inflow, outflow, depth, temperature stratification, and volume;
 - ii. For impoundments: location, elevation, surface area, depth, volume, freeboard, and construction and purpose;
 - iii. For streams, ditches, and channels: location, elevation, flow, velocity, depth, width, seasonal fluctuations, flooding tendencies (i. e., 100 year event), discharge point(s), and general contents.
 - iv. Drainage patterns; and

- v. Evapotranspiration.
- b. Description of the chemistry of the natural surface water and sediments. This includes determining the pH, total dissolved solids, total suspended solids, biological oxygen demand, alkalinity, conductivity, dissolved oxygen profiles, nutrients, chemical oxygen demand, total organic carbon, specific contaminant concentrations, etc.
- c. Description of sediment characteristics including:
 - i. Deposition area;
 - ii. Thickness profile; and
 - iii. Physical and chemical parameters (e. g., grain size, density, organic carbon content, ion exchange capacity, pH, etc.)

4. Air

The Facility shall provide information characterizing the climate in the vicinity of the facility. Such information may include, but not be limited to:

- a. A description of the following parameters:
 - i. Annual and monthly rainfall averages;
 - ii. Monthly temperature averages and extremes;
 - iii. Wind speed and direction;
 - iv. Relative humidity/dew point;
 - v. Atmospheric pressure;
 - vi. Evaporation data;
 - vii. Development of inversions; and
 - viii. Climate extremes that have been known to occur in the vicinity of the facility, including frequency of occurrence. (i. e. Hurricanes)
- b. A description of topographic and man-made features which affect air flow and emission patterns, including:
 - i. Ridges, hills or mountain areas;
 - ii. Canyons or valleys;
 - iii. Surface water bodies (e. g. rivers, lakes, bays, etc.); and
 - iv. Buildings.

B. Source Characterization

For those sources from which releases of hazardous constituents have been detected the Facility shall collect analytical data to completely characterize the wastes and the areas where wastes have been placed, to the degree that is possible without undue safety risks, including: type, quantity, physical form, disposition (containment or nature of deposits); and facility characteristics affecting release (e. g., facility security, and engineering barriers). This shall include quantification of the following specific characteristics, at each source area:

1. Unit/Disposal Area Characteristics:
 - a. Location of unit/disposal area;
 - b. Type of unit/disposal area;
 - c. Design features;
 - d. Operating practices (past and present)
 - e. Period of operation;
 - f. Age of unit/disposal area;
 - g. General physical conditions; and
 - h. Method used to close the unit/disposal area.
2. Waste Characteristics:
 - a. Type of wastes placed in the unit;
 - i. Hazardous classification (e. g., flammable, reactive, corrosive, oxidizing or reducing agent);
 - ii. Quantity; and
 - iii. Chemical composition.
 - b. Physical and chemical characteristics such as;
 - i. Physical form (solid, liquid, gas);
 - ii. Physical description (e. g., powder, oily sludge);
 - iii. Temperature;
 - iv. pH;
 - v. General chemical class (e. g., acid, base, solvent);
 - vi. Molecular weight;

- vii. Density;
 - viii. Boiling point;
 - ix. Viscosity;
 - x. Solubility in water;
 - xi. Cohesiveness of the waste; and
 - xii. Vapor pressure.
- c. Migration and dispersal characteristics of the waste such as:
- i. Sorption capability;
 - ii. Biodegradability, bioconcentration, biotransformation;
 - iii. Photodegradation rates;
 - iv. Hydrolysis rates; and
 - v. Chemical transformations.

The Facility shall document the procedures used in making the above determinations.

C. Characterization of Releases of Hazardous Constituents

The Facility shall collect analytical data on groundwater, soils, surface water, sediment, and subsurface gas contamination in the vicinity of the facility in accordance with the sampling and analysis plan as required above. These data shall be sufficient to define the extent, origin, direction, and rate of movement of contamination. Data shall include time and location of sampling, media sampled, concentrations found, conditions during sampling, and the identity of the individuals performing the sampling and analysis. The Facility shall address the following types of contamination at the facility:

1. Groundwater Contamination

The Facility shall conduct a groundwater investigation to characterize any plumes of contamination detected at the facility. This investigation shall at a minimum provide the following information:

- a. A description of the horizontal and vertical extent of any plume(s) of hazardous constituents originating from or within the facility;
- b. The horizontal and vertical direction of contamination movement;
- c. The velocity of contaminant movement;
- d. The horizontal and vertical concentration profiles of hazardous constituents in the plume(s);
- e. An evaluation of factors influencing the plume movement; and

- f. An extrapolation of future contaminant movement.

The Facility shall document the procedures used in making the above determinations (e. g., well design, well construction, geophysics, modeling, etc.).

2. Soil Contamination

The Facility shall conduct an investigation to characterize the contamination of the soil and rock units above the saturated zone in the vicinity of any contaminant release. The investigation may include the following information:

- a. A description of the vertical and horizontal extent of contamination;
- b. A description of appropriate contaminant and soil chemical properties within the contaminant source area and plume. This may include contaminant solubility, speciation, absorption, leachability, exchange capacity, biodegradability, hydrolysis, photolysis, oxidation and other factors that might affect contaminant migration and transformation;
- c. Specific contaminant concentrations;
- d. The velocity and direction of contaminant movement; and
- e. An extrapolation of future contaminant movement.

The Facility shall document the procedures used in making the above determinations.

3. Surface Water and Sediment Contamination

The Facility shall conduct a surface water investigation to characterize contamination in surface water bodies resulting from releases of hazardous constituents at the facility. The investigation may include, but not be limited to, the following information:

- a. A description of the horizontal and vertical extent of any plume(s) originating from the facility, and the extent of contamination in underlying sediments;
- b. The horizontal and vertical direction of contaminant movement;
- c. The contaminant velocity;
- d. An evaluation of the physical, biological and chemical factors influencing contaminant movement;
- e. An extrapolation of future contaminant movement; and
- f. A description of the chemistry of the contaminated surface waters and sediments. This includes determining the pH, total dissolved solids, specific contaminant concentrations, etc.

4. Air Contamination

The Facility shall conduct an investigation to characterize gaseous releases of hazardous constituents into the atmosphere or any structures or buildings. This investigation may provide the following information:

- a. A description of the horizontal and vertical direction and velocity of contaminant movement;
- b. The rate and amount of the release; and
- c. The chemical and physical composition of the contaminant(s) released, including horizontal and vertical concentration profiles.

The Facility shall document the procedures used in making the above determinations.

D. Potential Receptors

The Facility shall collect data describing the human populations and environmental systems that are susceptible to contaminant exposure from the facility. Chemical analysis of biological samples and/or data on observable effects in ecosystems may also be obtained as appropriate. The following characteristics shall be identified:

1. Current local uses and planned future uses of groundwater:

- a. Type of use (e. g., drinking water source: municipal or residential, agricultural, domestic/non-potable, and industrial); and
- b. Location of groundwater users, to include withdrawal and discharge wells, within one mile of the impacted area.

The above information should also indicate the aquifer or hydrogeologic unit used and/or impacted for each item.

2. Current local uses and planned future uses of surface waters directly impacted by the facility:

- a. Domestic and municipal (e.g., potable and lawn/gardening watering);
- b. Recreational (e.g. swimming, fishing);
- c. Agricultural;
- d. Industrial; and
- e. Environmental (e.g., fish and wildlife propagation).

3. Human use of or access to the facility and adjacent lands, including but not limited to:

- a. Recreation;
- b. Hunting;

- c. Residential;
 - d. Commercial; and
 - e. Relationship between population locations and prevailing wind direction.
4. A general description of the biota in surface water bodies on, adjacent to, or affected by the facility.
 5. A general description of the ecology within the area adjacent to the facility.
 6. A general demographic profile of the people who use, or have access to the facility and adjacent land, including, but not limited to, age, sex, and sensitive subgroups.
 7. A description of any known or documented endangered or threatened species near the facility.

APPENDIX C

CORRECTIVE MEASURE STUDY (CMS) WORKPLAN OUTLINE

APPENDIX C

CORRECTIVE MEASURE STUDY (CMS) WORKPLAN OUTLINE

I. IDENTIFICATION AND DEVELOPMENT OF THE CORRECTIVE MEASURES ALTERNATIVES

Based on the results of the RCRA Facility Investigation and consideration of the identified potential corrective measure technologies, the Facility shall identify, screen and develop the alternatives for removal, containment, treatment and/or other remediation of the contamination based on the objectives established for the corrective action.

A. Description of Current Situation

The Facility shall submit an update to the information describing the current situation at the facility and the known nature and extent of the contamination as documented by the RCRA Facility Investigation (RFI) Report. The Facility shall provide an update to information presented in the RFI regarding previous response activities and interim measures which have or are being implemented at the facility. The Facility shall also make a facility-specific statement of the purpose for the response, based on the results of the RFI. The statement of purpose should identify the actual or potential exposure pathways that should be addressed by corrective measures.

B. Establishment of Corrective Action Objectives

The Facility shall propose facility-specific objectives for the corrective action. These objectives shall be based on public health and environmental criteria, information gathered during the RFI, EPA guidance, and the requirements of any applicable State and Federal statutes. At a minimum, all corrective actions concerning groundwater releases from regulated units must be consistent with, and as stringent as, those required under ADEM Admin. Code R. 335-14-5-.06(11).

C. Screening of Corrective Measure Technologies

The Facility shall review the results of the RFI and assess the technologies which are applicable at the facility. The Facility shall screen the corrective measure technologies to eliminate those that may prove infeasible to implement, that rely on technologies unlikely to perform satisfactorily or reliably, or that do not achieve the corrective measure objective within a reasonable time period. This screening process focuses on eliminating those technologies which have severe limitations for a given set of waste and site-specific conditions. The screening step may also eliminate technologies based on inherent technology limitations.

Site, waste, and technology characteristics which are used to screen inapplicable technologies are described in more detail below:

1. Site Characteristics

Site data should be reviewed to identify conditions that may limit or promote the use of certain technologies. Technologies whose use is clearly precluded by site characteristics should be eliminated from further consideration.

2. Waste Characteristics

Identification of waste characteristics that limit the effectiveness or feasibility of technologies is an important part of the screening process. Technologies clearly limited by these waste characteristics should be eliminated from consideration. Waste characteristics particularly affect the feasibility of in-situ methods, direct treatment methods, and land disposal (on/off-site).

3. Technology Limitations

During the screening process, the level of technology development, performance record, and inherent construction, operation, and maintenance problems should be identified for each technology considered. Technologies that are unreliable, perform poorly, or are not fully demonstrated may be eliminated in the screening process. For example, certain treatment methods have been developed to a point where they can be implemented in the field without extensive technology transfer or development.

D. Identification of the Corrective Measure Alternatives

The Facility shall develop the Corrective Measure alternatives based on the corrective action objectives and analysis of potential corrective measure technologies. The Facility shall rely on engineering practice to determine which of the previously identified technologies appear most suitable for the site. Technologies can be combined to form the overall corrective action alternatives. The alternatives developed should represent a workable number of option(s) that each appear to address adequately all site problems and corrective action objectives. Each alternative may consist of an individual technology or a combination of technologies. The Facility shall document the reasons for excluding technologies.

II. EVALUATION OF THE CORRECTIVE MEASURE ALTERNATIVES

The Facility shall describe each Corrective Measure Alternative that passes through the initial screening and evaluate each Corrective Measure Alternative and its components. The evaluation shall be based on technical, environmental, human health and institutional concerns. The Facility shall also develop cost estimates of each corrective measure.

A. Technical/Environmental/Human Health/Institutional

The Facility shall provide a description of each Corrective Measure Alternative which includes but is not limited to the following: preliminary process flow sheets; preliminary sizing and type of construction for buildings and structures; and rough quantities of utilities required. The Facility shall evaluate each alternative in the four following areas:

1. Technical

The Facility shall evaluate each Corrective Measure Alternative based on performance, reliability, implementability and safety.

a. The Facility shall evaluate performance based on the effectiveness and useful life of the corrective measure:

i. Effectiveness shall be evaluated in terms of the ability to perform intended functions, such as containment, diversion, removal, destruction, or treatment. The effectiveness of each corrective measure shall be determined either through design specifications or by performance evaluation. Any specific

waste or site characteristics which could potentially impede effectiveness shall be considered. The evaluation should also consider the effectiveness of combinations of technologies; and

- ii. Useful life is defined as the length of time the level of desired effectiveness can be maintained. Most corrective measure technologies, with the exception of destruction, deteriorate with time. Often, deterioration can be slowed through proper system operation and maintenance, but the technology eventually may require replacement. Each corrective measure shall be evaluated in terms of the projected service lives of its component technologies. Resource availability in the future life of the technology, as well as appropriateness of the technologies, must be considered in estimating the useful life of the project.
- b. The Facility shall provide information on the reliability of each corrective measure including their operation and maintenance requirements and their demonstrated reliability:
 - i. Operation and maintenance requirements include the frequency and complexity of necessary operation and maintenance. Technologies requiring frequent or complex operation and maintenance activities should be regarded as less reliable than technologies requiring little or straightforward operation and maintenance. The availability of labor and materials to meet these requirements shall also be considered; and
 - ii. Demonstrated and expected reliability is a way of measuring the risk and effect of failure. The Respondent should evaluate whether the technologies have been used effectively under analogous conditions; whether the combination of technologies have been used together effectively; whether failure of any one technology has an immediate impact on receptors; and whether the corrective measure has the flexibility to deal with uncontrollable changes at the site.
- c. The Facility shall describe the implementability of each corrective measure including the relative ease of installation (constructability) and the time required to achieve a given level of response:
 - i. Constructability is determined by conditions both internal and external to the facility conditions and include such items as location of underground utilities, depth to water table, heterogeneity of subsurface materials, and location of the facility (i.e., remote location vs. a congested urban area). The Facility shall evaluate what measures can be taken to facilitate construction under these conditions. External factors which affect implementation include the need for special orders or agreements, equipment availability, and the location of suitable off-site treatment or disposal facilities; and
 - ii. Time has two components that shall be addressed: the time it takes to implement a corrective measure and the time it takes to actually see beneficial results. Beneficial results are defined as the reduction of contaminants to some acceptable, pre-established level.
- d. The Facility shall evaluate each Corrective Measure Alternative with regard to safety. This evaluation shall include threats to the safety of nearby communities and

environments as well as those to workers during implementation. Factors to consider are fire, explosion, and exposure to hazardous substances.

2. Environmental

The Facility shall perform an Environmental Assessment for each alternative. The Environmental Assessment shall focus on the facility conditions and pathways of contamination actually addressed by each alternative. The Environmental Assessment for each alternative will include, at a minimum, an evaluation of: the short- and long-term beneficial and adverse effects of the response alternative; any adverse effects on environmentally sensitive areas; and an analysis of measures to mitigate adverse effects.

3. Human Health

The Facility shall assess each alternative in terms of the extent to which it mitigates short- and long-term potential exposure to any residual contamination and protects human health both during and after implementation of the corrective measure. The assessment will describe the concentrations and characteristics of the contaminants on-site, potential exposure routes, and potentially affected population. Each alternative will be evaluated to determine the level of exposure to contaminants and the reduction over time. For management of mitigation measures, the relative reduction of impact will be determined by comparing residual levels of each alternative with existing criteria, standards, or guidelines acceptable to EPA.

4. Institutional

The Facility shall assess relevant institutional needs for each alternative. Specifically, the effects of Federal, state and local environmental and public health standards, regulations, guidance, advisories, ordinances, or community relations on the design, operation, and timing of each alternative. If the selected remedy is capping and closure in place, a notation must be made in the land deed.

B. Cost Estimate

The Facility shall develop an estimate of the cost of each Corrective Measure Alternative (and for each phase or segment of the alternative). The cost estimate shall include both capital and operation and maintenance costs.

1. Capital costs consist of direct (construction) and indirect (non-construction and overhead) costs.

a. Direct capital costs include:

- i. Construction costs: Costs of materials, labor (including fringe benefits and worker's compensation), and equipment required to install the corrective measure.
- ii. Equipment costs: Costs of treatment, containment, disposal and/or service equipment necessary to implement the action; these materials remain until the corrective action is complete;
- iii. Land and site-development costs: Expenses associated with purchase of land and development of existing property; and

- iv. Buildings and services costs: Costs of process and non-process buildings, utility connections, purchased services, and disposal costs.
- b. Indirect capital costs include:
 - i. Engineering expenses: Costs of administration, design, construction supervision, drafting, testing of Corrective Measure Alternatives;
 - ii. Legal fees and license or order costs: Administrative and technical costs necessary to obtain licenses and orders for installation and operation;
 - iii. Start-up and shakedown costs: Costs incurred during corrective measure start-up; and
 - iv. Contingency allowances: Funds to cover costs resulting from unforeseen circumstances, such as adverse weather conditions, strikes, and inadequate facility characterization.
- 2. Operation and maintenance costs are post-construction costs necessary to ensure continued effectiveness of a corrective measure. The Facility shall consider the following operation and maintenance cost components:
 - a. Operating labor costs: Wages, salaries, training, overhead, and fringe benefits associated with the labor needed for post-construction operations;
 - b. Maintenance materials and labor costs: Costs for labor, parts, and other resources required for routine maintenance of facilities and equipment;
 - c. Auxiliary materials and energy: Costs of such items as chemicals and electricity for treatment plant operations, water and sewer service, and fuel;
 - d. Purchased services: Sampling costs, laboratory fees, and professional fees for which the need can be predicted;
 - e. Disposal and treatment costs: Costs of transporting, treating, and disposing of waste materials, such as treatment plant residues, generated during operations;
 - f. Administrative costs: Costs associated with administration of corrective measure operation and maintenance not included under other categories;
 - g. Insurance, taxes, and licensing costs: Costs of such items as liability and sudden accident insurance; real estate taxes on purchased land or right-of-way; licensing fees for certain technologies; and order renewal and reporting costs;
 - h. Maintenance reserve and contingency funds: Annual payments into escrow funds to cover (1) costs of anticipated replacement or rebuilding of equipment and (2) any large unanticipated operation and maintenance costs; and
 - i. Other costs: Items that do not fit any of the above categories.

III. JUSTIFICATION AND RECOMMENDATION OF THE CORRECTIVE MEASURE OR MEASURES

The Facility shall justify and recommend a Corrective Measure Alternative using technical, human health, and environmental criteria. This recommendation shall include summary tables which allow the alternative or alternatives to be understood easily. Trade-offs among health risks, environmental effects, and other pertinent factors shall be highlighted. The Department will select the Corrective Measure Alternative or alternatives to be implemented based on the results obtained from work completed under Sections II and III. At a minimum, the following criteria will be used to justify the final corrective measure or measures.

A. Technical

1. Performance - corrective measure or measures which are most effective at performing their intended functions and maintaining the performance over extended periods of time will be given preference;
2. Reliability - corrective measure or measures which do not require frequent or complex operation and maintenance activities and that have proved effective under waste and facility conditions similar to those anticipated will be given preference;
3. Implementability - corrective measure or measures which can be constructed and operated to reduce levels of contamination to attain or exceed applicable standards in the shortest period of time will be preferred; and
4. Safety - corrective measure or measures which pose the least threat to the safety of nearby residents and environments as well as workers during implementation will be preferred.

B. Human Health

The corrective measure(s) must comply with existing ADEM criteria, standards, or guidelines for the protection of human health. Corrective measures which provide the minimum level of exposure to contaminants and the maximum reduction in exposure with time are preferred.

C. Environmental

The corrective measure(s) posing the least adverse impact (or greatest improvement) over the shortest period of time on the environment will be favored.

IV. REPORTS

The Facility shall prepare a Corrective Measure Study Report presenting the results obtained from Sections I through III and recommending a Corrective Measure Alternative. Copies of the preliminary report shall be provided by the Facility to the Department for review and approval.

A. Draft

Copies of the draft report shall be provided by the Facility to ADEM. The Report shall at a minimum include:

1. A description of the facility to include site topographic map and preliminary layouts.
2. A summary of the corrective measure(s) and rationale for selection;

- a. Description of the corrective measure(s) and rationale for selection;
 - b. Performance expectations;
 - c. Preliminary design criteria and rationale;
 - d. General operation and maintenance requirements; and
 - e. Long-term monitoring requirements.
3. A summary of the RCRA Facility Investigation and impact on the selected corrective measure or measures;
 - a. Field studies (groundwater, surface water, soil, air); and
 - b. Laboratory studies (bench scale, pilot scale).
 4. Design and Implementation Precautions;
 - a. Special technical problems;
 - b. Additional engineering data required;
 - c. Orders and regulatory requirements;
 - d. Access, easements, right-of-way;
 - e. Health and safety requirements; and
 - f. Community relations activities.
 5. Cost Estimates and Schedules;
 - a. Capital cost estimate;
 - b. Operation and maintenance cost estimate; and
 - c. Project schedule (design, construction, operation).

B. Final

The Facility shall finalize the Corrective Measure Study Report incorporating comments received from ADEM on the Draft Corrective Measure Study Report. The report shall become final upon approval by the Department.

C. Public Review and Final Selection of Corrective Measures

Upon receipt of the Final Corrective Measure Study Report, the Department shall announce its availability to the public for review and comment. At the end of the comment period, the Department shall review the comments and then inform the Facility of the final decision as to the approved Corrective Measures to be implemented.

APPENDIX D
SCHEDULE OF COMPLIANCE

APPENDIX D

SCHEDULE OF COMPLIANCE

ITEM	DUE DATE
Notification of Newly Identified SWMUs and AOCs Condition VI.B.1 and Condition VI.B.2	Within 15 Calendar days of discovery
SWMU Assessment Report (SAR) Condition VI.B.3.	Within 90 calendar days of notification
Notification for Newly Discovered Releases at Previously Identified SWMUs and AOCs Condition VI.C.1.	Within 15 calendar days of discovery
Confirmatory Sampling Workplan for SWMUs and AOCs identified in Appendix A-3 Condition VI.E.1.	Within sixty (60) calendar days after notification by Department of which SWMUs or AOCs require further action
Confirmatory Sampling Report Condition VI.E.4.	In accordance with the approved CS Workplan
Phase I RFI Report Condition VI.D.	Within 150 calendar days from effective date of order
RFI Workplan for SWMUs and AOCs identified under Condition VI.B.4., Condition VI.C.2., Condition VI.E.5.	Within 90 calendar days after receipt of notification by Department of which SWMUs or AOCs require an RFI
RFI Progress Reports Condition VI.F.3.a.	Quarterly, beginning 90 calendar days from the start date specified by the Department
Draft RFI Report Condition VI.F.3.b.	In accordance with the approved RFI Workplan
Final RFI Report Condition VI.F.3.b.	Within 30 calendar days after receipt of Department comments on Draft RFI Report
Interim Measures Workplan Condition VI.G.1.a.	Within 30 calendar days of notification by Department
Interim Measures Progress Reports Condition VI.G.3.a.	In accordance with the approved Interim Measure Workplan
Interim Measures Report Condition VI.G.3.b.	Within 90 calendar days of completion
CMS Plan Condition VI.H.1.a.	Within 90 calendar days of notification by Department that a CMS is required
Draft CMS Report Condition VI.H.3.a.	In accordance with the Schedule in the approved CMS Workplan
Final CMS Report Condition VI.H.3.a.	Within 30 calendar days of Department's comments on draft CMS Report
Demonstration of Financial Assurance Condition VI.I.3.	Within 120 calendar days after order modification for remedy
Imminent Hazard Report Condition VI.K.1. and VI.K.2.	Oral within 24 hours and written within 15 calendar days of becoming aware of the hazardous circumstances

APPENDIX E
ACTION LEVELS

APPENDIX E

ACTION LEVELS

I. DEFINITION

Action levels are conservative health-based concentrations of hazardous constituents determined to be indicators for the protection of human health or the environment. Action levels shall be set for all hazardous constituents, a subset of hazardous wastes, identified in the RFI Report(s) or for those hazardous constituents which the Department has reason to believe may have been released from a solid waste management unit (SWMU) or Area of Concern (AOC) at the facility. Should the concentration of a hazardous constituent(s) in an aquifer, surface water, soils, or air exceed its action level for any environmental medium, the Department may require the Facility to conduct a Corrective Measure Study (CMS) to meet the requirements of order Condition IV.G., Appendix C, and ADEM Admin. Code R. 335-14-5-.06(12). If the Department determines that a constituent(s) released from a SWMU or AOC in quantities below its respective action level(s) may pose a threat to human health or the environment, given site-specific exposure conditions, cumulative effects, ecological concerns, etc., then the Department has the authority to require a CMS to meet the requirements of Condition IV.G. of this order, Appendix C of this order, and ADEM Admin. Code R. 335-14-5-.06(12).

Action levels shall be concentration levels which satisfy the following criteria:

- A.
 - 1. Is derived in a manner consistent with ADEM/EPA guidelines for assessing human and environmental health risks from hazardous constituents; and
 - 2. Is based on scientifically valid studies conducted in accordance with the Toxic Substances Control Act (TSCA) Good Laboratory Practice Standards, or equivalent; and
 - 3. For human health action levels to address carcinogens, represents a concentration associated with an excess upper bound lifetime cancer risk of 1×10^{-6} for carcinogens due to continuous constant lifetime exposure; and
 - 4. For human health action levels to address systemic toxicants, represents a concentration to which the human population (including sensitive subgroups) could be exposed on a daily basis that is likely to be without appreciable risk of deleterious effects during a lifetime.
- B. For constituent(s) detected in groundwater, air, surface water, or soils, for which a concentration level that meets the criteria specified in sections I.A.1. through I.A.4. of this appendix is not available or possible, the action level for the constituent(s) shall be the background concentration of the constituent(s).

II. GROUNDWATER

- A. Action levels for constituents in groundwater shall be concentrations specified as:
 - 1. MCLs; or
 - 2. For constituents for which MCLs have not been promulgated, a concentration which satisfies the criteria specified in sections I.A.1. through I.A.4. of this appendix shall be calculated.
- B. In deriving human health action levels for constituents for which MCLs have not been promulgated, the recommended equations/assumptions shall be that followed by USEPA Region 3 in its Semi-annual

Risk-Based Concentration Tables. Because the science of risk assessment is in flux and technical criteria/opinion of today (e.g., content of standardized equations, use of default exposure assumptions, etc.) may change, the Department reserves that right to revise the above recommended equations/assumptions as needed to meet the criteria listed in sections I.A.1. through I.A.4. of this appendix.

III. SURFACE WATER

- A. Action levels for constituents in surface water shall be concentrations specified as:
1. Water Quality Standards established pursuant to the Clean Water Act by Department, where such standards are expressed as numeric values; or
 2. Numeric interpretations of Department narrative water quality standards where water quality standards expressed as numeric values have not been established by the Department; or
 3. MCLs for constituents in surface water designated by the Department for drinking water supply, where numeric values or numeric interpretations, described in sections III.A.1. and III.A.2. of this appendix, are not available; or
 4. For constituents in surface waters designated by the Department for drinking water supply for which numeric values, numeric interpretations, or MCLs are not available, a concentration which meets the criteria specified in sections I.A.1. through I.A.4. of this appendix shall be calculated assuming exposure through consumption of the water contaminated with the constituent; or
 5. For constituents in surface waters designated for use or uses other than drinking water supply and for which numeric values or numeric interpretations have not been established, a concentration established by the Department which meets the criteria specified in sections I.A.1. through I.A.4. of this appendix shall be calculated.
- B. In deriving human health action levels for constituents in surface water, the recommended equations/assumptions shall be that followed by USEPA Region 3 in its Semi-annual Risk-Based Concentration Tables. Because the science of risk assessment is in flux and technical criteria/opinion of today (e.g., content of standardized equations, use of default exposure assumptions, etc.) may change, the Department reserves that right to revise the above recommended equations/assumptions as needed to meet the criteria listed in sections I.A.1. through I.A.4. of this appendix.

IV. AIR

- A. Action levels for constituents in air shall be defined as concentrations which meet the criteria specified in sections I.A.1. through I.A.4. of this appendix. The action levels for air shall be measured or estimated at the facility boundary, or another location closer to the unit if necessary to protect human health and the environment.
- B. In deriving human health action levels for constituents in air, the RfC should be utilized as the action level, where available. The RfC includes exposure assumptions, and no calculations are necessary to calculate an action level. If a RfC is not available, the recommended methodology/assumptions shall be that followed in the USEPA Region 3 Semi-annual Risk-Based Concentration Tables. Because the science of risk assessment is in flux and technical criteria/opinion of today (e.g., content of standardized equations, use of default exposure assumptions, etc.) may change, the Department reserves that right to revise the above recommended equations/assumptions as needed to meet the criteria listed in sections I.A.1. through I.A.4. of this appendix.

V. SOILS

- A. Action levels for constituents in soils shall be concentrations which meet the criteria specified in sections I.A.1. through I.A.4. of this appendix.
- B. The calculation of human health action levels for soil includes several specific exposure routes which must be evaluated individually: 1) ingestion, 2) inhalation and 3) leachability to groundwater. In deriving action levels to address ingestion, inhalation and leaching, the methodology/assumptions found in the most recent Soil Screening Level Guidance should be reviewed for appropriate equations and assumptions. Because the science of risk assessment is in flux and technical criteria/opinion of today (e.g., content of standardized equations, use of default exposure assumptions, etc.) may change, the Department reserves that right to revise the above recommended equations/assumptions as needed to meet the criteria listed in sections I.A.1. through I.A.4. of this appendix.

VI. SEDIMENT

- A. Action levels for constituents in sediment shall be based on whether human health or ecological health is the major concern. If ecological concerns are deemed to predominate, then action levels for constituents in sediment shall be concentrations based on the latest sediment screening values as calculated by USEPA Region 4. Because the science of risk assessment is in flux and technical criteria/opinion of today (e.g., content of standardized equations, use of default exposure assumptions, etc.) may change, the Department reserves that right to revise the above recommended equations/assumptions as needed to meet the criteria listed in sections I.A.1. through I.A.4. of this appendix.

If an ecological sediment screening value for a constituent of concern has not been generated by USEPA Region 4 and cannot be generated using the criteria in sections I.A.1. and I.A.2. of this appendix, then the ecological action level for sediment shall be background. If human health is the prevailing concern, then the human health action level for sediment shall address all applicable exposures.

EXHIBIT "A"

Description of Premises

TRACT I:

Commence at the Southwest corner of Section 19, Township 19 North, Range 27 East, in Opelika, Lee County, Alabama; thence run due East, 245.2 feet; thence run due North, 1,547.8 feet to a point on the north margin of a 60-foot wide Southern Natural Gas Company easement and the point of beginning of the parcel to be described herein; FROM SAID POINT OF BEGINNING, thence run North 37° 44' West, 352.4 feet to the east margin of Society Hill Road; thence run in a northerly direction along said margin of Society Hill Road on the arc of a curve to the left having a radius of 1,452.4 feet for a curve length of 384.0; thence run North 05° 34' West along said margin, 285.7 feet; thence run North 84° 00' East, 10.0 feet; thence run North 05° 41' West along said margin, 169.8 feet; thence run in a northerly direction along said margin on the arc of a curve to the right having a radius of 1,849.9 feet for a curve length of 386.5 feet; thence run North 05° 19' East along said margin, 19.8 feet; thence run in a northeasterly direction along said margin on the arc of a curve to the left having a radius of 2,924.8 feet for a curve length of 102.2 feet to the southeast margin of Williamson Avenue; thence run North 73° 28' East along said margin of Williamson Avenue 213.1 feet; thence run North 69° 34' East along said margin, 277.6 feet; thence run North 20° 26' West, 30.0 feet; thence run North 69° 49' East along said margin, 321.2 feet; thence run in a northeasterly direction along said margin on the arc of a curve to the left having a radius of 793.9 feet for a curve length of 191.0 feet; thence run North 56° 02' East along said margin, 186.8 feet; thence run in a northeasterly direction along said margin on the arc of a curve to the right having a radius of 4,195.9 feet for a curve length of 808.48 feet; thence run North 67° 04' East, 429.57 feet; thence run in a northeasterly direction along said margin on the arc of a curve to the right having a radius of 542.96 feet for a curve length of 213.94 feet (chord bearing North 78° 21' 40" East, 212.55 feet); thence run North 89° 38' 56" East along said margin, 1003.34 feet to the west margin of Poplar Street; thence run South 0° 18' 14" East along said margin of Poplar Street, 1,434.82 feet; thence run South 89° 34' 00" West, 307.15 feet; thence run North 83° 59' 00" West, 20.70 feet; thence run South 84° 24' 00" West, 1,218.63 feet; thence run South 89° 05' West, 598.0 feet; thence run South 01° 11' East, 1,088.6 feet to the north margin of aforesaid Southern Natural Gas Company easement; thence run South 88° 42' West along said margin, 1,056.7 feet to the point of beginning, containing 121.099 acres, more or less;

LESS AND EXCEPT FROM TRACT I: Commence at the Southwest corner of Section 19, Township 19 North Range 27 East, in Opelika, Lee County, Alabama; run thence due East 245.2 feet; run thence due North 1,547.8 feet to a point on the north margin of a 60-foot wide Southern Natural Gas Company easement and the point of beginning of the parcel to be described herein; FROM SAID POINT OF BEGINNING, thence run North 37° 44' 00" West 352.40 feet to the east margin of Society Hill Road; thence run in a northerly direction along said margin of Society Hill Road on the arc of a curve to the left having a radius of 1,452.40 feet for a curve length of 317.39 feet; thence run North 88° 42' 00" East 1,253.93 feet; thence run South 01° 11' 00" East 600.00 feet; thence run South 88° 42' 00" West 1,056.70 feet to the point of beginning, containing 16.675 acres, more or less.

TRACT II:

Commence at the Northeast corner of Section 19, Township 19 North, Range 27 East, in Opelika, Lee County, Alabama; thence run North 88° 00' West, 1,648.7 feet; thence run South 00° 04' West, 784.6 feet to a point on the West margin of Poplar Street and the point of beginning of the parcel to be described herein; FROM SAID POINT OF BEGINNING, thence continue South 00° 04' West along said margin, 351.8 feet to the north margin of Williamson Avenue; thence run South 89° 38' 56" West along said margin of Williamson Avenue, 251.8 feet; thence run North 01° 12' West, 115.3 feet; thence run North 16° 29' West, 144.0 feet; thence run North 72° 55' East, 144.6 feet; thence run North 69° 56' East, 167.5 feet to the point of beginning, containing 1.861 acres, more or less.