U.S. Environmental Protection Agency Portion of the Resource Conservation & Recovery Act Permit Pursuant to the Hazardous & Solid Waste Amendments

Grenada Manufacturing, LLC
EPA I.D. Number: MSD 007 037 278

OWNER:	Grenada Manufacturing, LLC	OPERATOR:	Grenada Manufacturing, LLC
	635 Highway 332		635 Highway 332
	Grenada, Mississippi 38901		Grenada, Mississippi 38901

Pursuant to the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976, 42 USC Section 6901 et seq., and the Hazardous and Solid Waste Amendments (HSWA) of 1984, P.L. 98-616, and regulations promulgated there under by the U.S. Environmental Protection Agency (EPA) (codified and to be codified in Title 40 of the Code of Federal Regulations), a permit is issued to Grenada Manufacturing, LLC (hereafter called the Permittee), who owns and operates a hazardous waste facility located in Grenada, MS at latitude 33°47'92" and longitude 89°48'64".

This Permit, in conjunction with the Hazardous Waste Management Permit issued by the State of Mississippi, constitutes the full RCRA Permit for this facility. The Permittee, pursuant to this permit, shall be required to investigate any releases of hazardous waste or hazardous constituents at the facility regardless of the time at which waste was placed in a unit and to take appropriate corrective action for any such releases. The Permit also requires the Permittee to comply with all RCRA regulations applicable to this facility.

The Permittee must comply with all terms and conditions of this Permit. This Permit consists of the conditions contained herein (including those in any appendices) and applicable regulations contained in 40 CFR Parts 260 through 264, 266, 268, 270, and 124 as specified in the Permit and statutory requirements of RCRA, as amended by HSWA. Nothing in this Permit shall preclude the Regional Administrator from reviewing and modifying the Permit at any time during its term in accordance with 40 CFR § 270.41.

This Permit is based on the premise that information and reports submitted by the Permittee prior to issuance of this Permit are complete and accurate. Any inaccuracies found in this information or information submitted as required by this Permit may be grounds for termination or modification of this Permit in accordance with 40 CFR § 270.41, § 270.42, and §270.43 and potential enforcement action. The Permittee must inform EPA of any deviation from or changes in the information in the application which would affect the Permittee's ability to comply with the applicable regulations or Permit conditions.

This Permit is effective August 30, 2010, and shall remain in effect for 10 years until August 30, 2020, unless revoked and reissued, or terminated under 40 CFR § 270.41 and § 270.43 or continued in accordance with 40 CFR § 270.51(a). All obligations for performance of HSWA provisions required under this Permit are in effect until deemed complete by the Regional Administrator.

If any conditions of this Permit are appealed in accordance with 40 CFR § 124.19, the effective date of the conditions determined to be stayed in accordance with 40 CFR § 124.16 shall be determined by final agency action as specified under 40 CFR § 124.19.

7/29/10
Issued Date

G. Alan Farmer
Director
RCRA Division

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PART I - STANDARD CONDITIONS

I.A. EFFECT OF PERMIT

(40 CFR § 270.4, § 270.30(g))

Pursuant to 40 CFR § 264.10, the requirements of this RCRA Permit extend to all contiguous property under the operational control of the Permittee. A Grenada Manufacturing, LLC facility layout diagram is incorporated as Figure 1: Facility Map in Appendix A, which demarks the property boundaries under the Permittee's control. Appendix A, Figure 2: Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) Location Map illustrates the locations of the SWMUs and AOCs at this facility. Subject to 40 CFR § 270.4, compliance with this RCRA Permit constitutes compliance, for purposes of enforcement, with Subtitle C of RCRA. Issuance of this Permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of State or local law or regulations. Compliance with the terms of this Permit does not constitute a defense to any order issued or any action brought under Sections 3008(a), 3008(h), 3004(v), 3008(c), 3007, 3013 or Section 7003 of RCRA, Sections 104, 106(a), 106(e), or 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 et seq., commonly known as CERCLA), or any other law providing for protection of public health or the environment.

I.B. PERMIT ACTIONS

(40 CFR § 124.5, § 270.4(a), § 270.30(f), § 270.41, § 270.42, § 270.43)

This Permit may be modified, revoked and reissued, or terminated for cause as specified in 40 CFR § 270.41, § 270.42, and § 270.43, except for the Corrective Action schedule of compliance which shall be modified in accordance with Condition II.M. of this Permit. The filing of a request for a permit modification, revocation and re-issuance, or termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay the applicability or enforceability of any Permit condition.

I.C. STAYS OF CONTESTED PERMIT CONDITIONS (SEVERABILITY)

(40 CFR § 124.16)

As specified in 40 CFR § 124.16, if there is a request for review of this Permit, the contested Permit conditions shall be stayed. Uncontested conditions which are not severable from those contested shall also be stayed together with the contested conditions. All other conditions of the Permit become fully effective and enforceable as of the effective date of this Permit.

I.D. DUTIES AND REQUIREMENTS

I.D.1. Duty to Comply

(40 CFR § 270.30(a))

The Permittee shall comply with all conditions of this Permit, except to the extent and for the duration such noncompliance is authorized by an emergency permit. Any Permit noncompliance, other than noncompliance authorized by an emergency permit, constitutes a violation of RCRA and is grounds for enforcement action, Permit termination, revocation and re-issuance, modification, or denial of a permit renewal application.

I.D.2. Duty to Reapply

(40 CFR § 270.10(h), § 270.30(b))

If the Permittee will continue an activity allowed or required by this Permit, after the expiration date of this Permit, the Permittee shall submit a complete application for permit renewal per 40 CFR § 270.30(b), at least one hundred eighty (180) calendar days before this Permit expires, unless permission for a later date has been granted by the Regional Administrator.

I.D.3. Obligation for Corrective Action

(40 CFR § 264.90(a)(2), § 264.101, § 270.1(c), § 270.51)

The Permittee is required to continue this permit for any period necessary to comply with the corrective action requirements of this Permit.

I.D.4. Cost Estimate for Corrective Action

(40 CFR § 264.90(a)(2), § 264.101)

a. The Permittee shall prepare a cost estimate for the completion of any corrective action required under this permit for solid waste management units in order to provide financial assurance for completion of corrective action as required under 40 CFR § 264.90(a)(2) and § 264.101. Such cost estimate shall be based upon the cost of assessment of all affected media, and the design, installation, operation, inspection, monitoring, and maintenance of the corrective action system to meet the requirements of 40 CFR § 264.101 and this permit to include any treatment system necessary for contaminated media. Such cost estimate will include the full cost (100%) of corrective action as defined by Part I.G.3 of this permit. The cost estimate shall also cover the total third party cost of implementing the corrective action, including any necessary long-term corrective action costs. Third-party costs are described in 40 CFR § 264.142 (a)(2) and shall include all direct costs and also all indirect costs (including contingencies) as described in EPA

Directive No. 9476.00-6 (November, 1986), Volume III, Chapter 10. The cost estimate shall contain sufficient details to allow it to be evaluated by EPA.

b. The Permittee shall submit the cost estimate for completion of corrective action required under 40 CFR § 264.90(a)(2) and § 264.101 and this permit within one hundred eighty (180) calendar days of the effective date of this permit.

c. The Permittee shall annually adjust the cost estimate for inflation sixty (60) days prior to the anniversary date of the establishment of the financial assurance mechanism unless using a financial test or corporate guarantee, in which case the estimate shall be updated thirty (30) days after the close of the firm's fiscal year.

d. The Permittee shall submit cost adjustments for modifications to the corrective action plan to the Section within thirty (30) calendar days after receiving approval of the modification if the change increases the cost of corrective action.

I.D.5. Financial Assurance for Corrective Action
(40 CFR § 264.90(a)(2), § 264.101)

a. The Permittee shall demonstrate continuous compliance with 40 CFR § 264.90(a)(2) and § 264.101 by providing documentation of financial assurance using a mechanism described in 40 CFR § 264.140 through § 264.151 in at least the amount of the cost estimate required under Condition I.D.4.

b. The Permittee shall submit financial assurance for the full cost of corrective action as required under 40 CFR § 264.90(a)(2) and § 264.101 no later than sixty (60) calendar days after the approval of the cost estimate described in I.D.4. and I.D.5.a. of this permit.

c. The Permittee may use the mechanisms described in 40 CFR § 264.140 through § 264.151 for financial assurance for corrective action. References to regulatory requirements for "closure and/or post-closure care" shall be replaced with the phrase "closure, post-closure care, and/or corrective action."

I.D.6. Need to Halt or Reduce Activity Not a Defense
(40 CFR § 270.30(c))

The Permittee shall not use as a defense, that the Permittee must halt or reduce

permitted activities, in order to maintain compliance with the conditions of this Permit in the event of an enforcement action.

I.D.7. Duty to Mitigate
(40 CFR § 270.30(d))

In the event of noncompliance with the Permit, the Permittee shall take all reasonable steps to minimize releases of hazardous waste or hazardous constituents to the environment, and shall carry out such measures as are reasonable to prevent significant adverse effects on human health or the environment.

I.D.8. Proper Operation and Maintenance
(40 CFR § 270.30(e))

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve and maintain compliance with the conditions of the permit.

I.D.9. Duty to Provide Information
(40 CFR § 270.30(h))

The Permittee shall furnish to the Regional Administrator, within a reasonable time, any relevant information which the Regional Administrator may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this Permit. The Permittee shall also furnish to the Regional Administrator, upon request, copies of any record required to be kept by this Permit or required to be kept per applicable RCRA requirements of 40 CFR Parts 260, 261, 264, 266, and 268.

I.D.10. Inspection and Entry
(40 CFR § 270.30(i))

The Permittee shall allow the Regional Administrator, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to:

a. Enter the Permittee's premises where a RCRA regulated activity is located or conducted, or where records must be kept under the conditions of this

Permit and applicable RCRA requirements;

b. Have access to and copy any records that must be kept under the conditions of this Permit and applicable RCRA requirements;

c. Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated, or required under this Permit or subject to RCRA; and

d. Sample or monitor for the purposes of assuring permit compliance or as otherwise authorized by RCRA, any substances or parameters at any location.

I.D.11. Monitoring and Records
(40 CFR § 264.74(b), § 270.30(j))

I.D.11.a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative waste sample to be analyzed must be the appropriate method from Appendix I of 40 CFR Part 261, the EPA Region 4 Field Branches Quality System and Technical Procedures (most recent version), or an equivalent method approved by the Regional Administrator. Procedures for sampling contaminated media must be those identified in the EPA Region 4 Field Branches Quality System and Technical Procedures or an equivalent method approved by the Regional Administrator. Laboratory methods must be those specified in the most recent edition of Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846, or an equivalent method approved by the Regional Administrator.

I.D.11.b. The Permittee shall retain at the facility, as provided for under 40 CFR Part 264, or other appropriate location as approved by the Regional Administrator, records of all monitoring information required under the terms of this Permit and applicable monitoring and record keeping required for applicable requirements of 40 CFR Parts 260, 261, 264, 266, and 268; including all calibration and maintenance records, records of all data used to prepare documents required by this Permit, copies of all reports and records required by this Permit, the certification required by 40 CFR § 264.73(b)(9), and records of all data used to complete the application for this Permit for a period of at least three years from the date of the sample, measurement, report, certification or application, or until corrective action is completed, whichever date is later. As a generator of hazardous waste, the Permittee shall retain a copy of all notices, certifications, demonstrations, waste analysis data, and other documentation produced pursuant to 40 CFR Part 268 for at least three years from the date that the waste which is the subject of such documentation was last sent to on-site or off-site treatment,

storage, or disposal, or until corrective action is completed, whichever date is later. These periods may be extended by request of the Regional Administrator at any time and are automatically extended during the course of any unresolved enforcement action regarding this facility.

I.D.11.c. Records of monitoring information shall specify:

i. The dates, exact place, and times of sampling, or measurements;
ii. The individuals who performed the sampling or measurements;
iii. The dates analyses were performed;
iv. The name of the laboratory which performed the analyses;
v. The analytical techniques or methods used; and
vi. The results of such analyses.

I.D.12. Reporting Planned Changes
(40 CFR § 270.30(l)(1 & 2))

The Permittee shall give written notice to the Regional Administrator as soon as possible of any planned physical alterations or additions, including Permittee-initiated Interim Measures under Condition II.F.1.b., which impact known or suspected contamination at or from SWMUs or AOCs referenced in Conditions II.A.1., II.A.2., II.A3., II.A.4., and II.C. The notice shall include at a minimum, a summary of the planned change, the reason for the planned change, a discussion of the impact(s) the planned change will have on the ability to investigate contamination at or from the SWMU or AOC, and a discussion of the impact(s) the planned change will have on the known or suspected contamination.

I.D.13. Anticipated Noncompliance
(40 CFR § 270.30(l) (2))

The Permittee shall give advance notice to the Regional Administrator of any planned changes in the permitted facility or activity which may result in noncompliance with the requirements of this Permit.

I.D.14. Transfer of Permit
(40 CFR § 264.12(c), § 270.30(l) (3) and § 270.40)

This Permit may be transferred to a new owner or operator only after notice to the Regional Administrator and only if the Permit is modified or revoked and reissued pursuant to 40 CFR § 270.40(b) or § 270.41(b)(2) to identify the new permittee and incorporate such other requirements as may be necessary under the appropriate Act. Before transferring ownership or operation of the facility during its operating life, or of a disposal facility during the post-closure care period, the Permittee shall notify the new owner or operator in writing of the requirements of 40 CFR Parts 264 and 270, HSWA and this Permit.

I.D.15. Compliance Schedules
(40 CFR § 270.33)

Written notification of compliance or noncompliance with any item identified in the compliance schedule of this permit shall be submitted according to each schedule date. If the Permittee does not notify the Regional Administrator within fourteen (14) calendar days of its compliance or noncompliance with the schedule, the Permittee shall be subject to an enforcement action. Submission of a required item according to the schedule constitutes notification of compliance.

I.D.16. Twenty-four Hour Reporting
(40 CFR § 264.56(d & j), § 270.30(l) (6), and § 270.30(h))

I.D.16.a. The Permittee shall report any noncompliance or any imminent or existing hazard from a release of hazardous waste or hazardous constituents which may endanger human health or the environment. Any such information shall be reported orally to the Regional Administrator within 24 hours from the time the Permittee becomes aware of the circumstances. This report shall include:

i. Information concerning the release of any hazardous waste or hazardous constituents which may endanger public drinking water supplies.
ii. Information concerning the release or discharge of any hazardous waste or hazardous constituents, or of a fire or explosion at the facility, which could threaten the environment or human health outside the facility.

I.D.16.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, and telephone number of the facility;
iii. Date, time, and type of incident;
iv. Name and quantity of materials involved;
v. The extent of injuries, if any;
vi. An assessment of actual or potential hazard to the environment and human health outside the facility; and
vii. Estimated quantity and disposition of recovered material that resulted from the incident.

I.D.16.c. A written report shall also be provided to the Regional Administrator within fifteen (15) calendar days of the time the Permittee becomes aware of the circumstances. The written report shall contain the information specified under Conditions I.D.16.a. and b.; a description of the noncompliance or imminent hazard and its cause; the periods of noncompliance (including exact dates and times); whether the noncompliance or imminent hazard 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 or imminent hazard.

I.D.17. Other Noncompliance
(40 CFR § 270.30(l)(10))

The Permittee shall report all other instances of noncompliance not otherwise required to be reported in accordance with I.D.16., at the time written reports as required by this Permit are submitted. The reports shall contain the information listed in Condition I.D.16. as appropriate.

I.D.18. Other Information
(40 CFR § 270.30(l)(11))

Whenever the Permittee becomes aware that the Permittee failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report(s) or document(s) submitted to the Regional Administrator, the Permittee shall promptly submit such facts or information.

I.E. SIGNATORY REQUIREMENT
(40 CFR § 270.11 and § 270.30(k))

All applications, reports, or information submitted to the Regional Administrator shall be signed and certified in accordance with 40 CFR § 270.11.

I.F. CONFIDENTIAL INFORMATION
(40 CFR § 270.12 and Part 2)

The Permittee may claim confidential any information required to be submitted by this Permit in accordance with 40 CFR § 270.12.

I.G. DEFINITIONS
(40 CFR § 124, 260, 261, 264, 270 and RCRA, as amended)

For purposes of this Permit, terms used herein shall have the same meaning as those in RCRA and 40 CFR § 124, 260, 261, 264, 268 and 270, unless this permit specifically provides otherwise. Where terms are not defined in the regulation, the Permit, or EPA guidelines or publications, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

I.G.1. The term "**Area Of Concern**" (**AOC**) for purposes of this Permit 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 Regional Administrator to pose a current or potential threat 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 40 CFR § 270.32(b)(2) in order to ensure adequate protection of human health and the environment.

I.G.2. An **"Area of Contamination"** is a discrete contiguous area of generally dispersed contamination that can be considered a RCRA unit (usually landfills/soils). Because an Area of Contamination is equated to a RCRA land-based unit, consolidation and *in situ* treatment of hazardous waste within the Area of Contamination do not create a new point of hazardous waste generation for purposes of RCRA. An Area of Contamination allows wastes to be consolidated or treated *in situ* within the Area of Contamination without triggering land disposal restrictions or minimum technology requirements.

I.G.3. **"Corrective Action"** shall be defined as all activities, including activities conducted beyond the facility boundary, that are proposed or implemented to facilitate assessment, monitoring, and active or passive remediation of releases of hazardous waste or hazardous constituents to soil, groundwater, surface water, or the atmosphere associated with Solid Waste Management Units (SWMUs) and/or Areas of Concern (AOCs) and/or Areas of Contamination located at the facility or off-site, as required by 40 CFR § 264.100 and § 264.101 or as otherwise required and specified by this permit.

I.G.4. A **"Corrective Action Management Unit" (CAMU)** for purposes of this Permit, means an area, designated by the Regional Administrator within a facility, used only for the managing remediation wastes for implementing corrective action or cleanup at the facility.

I.G.5. **"Corrective Measures"** for purposes of this Permit, include all corrective action necessary to protect human health and the environment for all releases of hazardous waste or hazardous constituents from any solid waste management unit at the facility, regardless of the time at which waste was placed in the unit, as required under 40 CFR § 264.101. Corrective measures may address releases to air, soils, surface water or groundwater.

I.G.6. **"Extent of Contamination"** for the purposes of this Permit is defined as the horizontal and vertical area in which the concentrations of hazardous constituents in the environmental media being investigated are above detection limits or background concentrations indicative of the region, whichever is appropriate as determined by the Regional Administrator.

I.G.7. **"Facility"** for purposes of this Permit 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 40 CFR § 264.101, a facility includes all contiguous property under the control of the owner or operator seeking a permit under Subtitle C of RCRA.

I.G.8. A "**Hazardous Constituent**" for purposes of this Permit are those substances listed in 40 CFR § 261 Appendix VIII and § 264 Appendix IX or any substance deemed appropriate by the Regional Administrator".

I.G.9. "**Interim Measures**" for purposes of this Permit 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.

I.G.10. "**Land Disposal**" for purposes of this Permit and 40 CFR § 268 means placement in or on the land, except for a CAMU or staging pile, and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, salt bed formation, underground mine or cave, or placement in a concrete vault, or bunker intended for disposal purposes.

I.G.11. "**Landfill**" for the purposes of this Permit includes any disposal facility or part of a facility where hazardous waste is placed in or on the land and which is not a pile, a land treatment facility, a surface impoundment, an underground injection well, a salt dome formation, a salt bed formation, an underground mine, a cave, or a corrective action management unit.

I.G.12. "**Regional Administrator**" means the Regional Administrator for the EPA Region in which the facility is located, or his/her designee.

I.G.13. A "**release**" for purposes of this Permit includes any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment of any hazardous waste or hazardous constituents.

I.G.14. "**Remedy Construction**" shall mean the event when the State or EPA acknowledges in writing that the RCRA facility has completed construction of a facility's remedy that was designed to achieve long-term protection of human health and the environment and that the remedy is fully functional as designed, whether or not final cleanup levels or other requirements have been achieved. Remedy Construction may be site-wide or pertain only to specific areas of the facility. Remedy Construction is defined by the RCRA Info database code CA550.

I.G.15. A "**Remedy Decision**" shall mean the event by which the State or EPA formally selects a remedy designed to meet RCRA Corrective Action long-term goals of protection of human health and the environment. A Remedy Decision may be site-wide or pertain only to specific areas of the facility. Remedy Decision is defined by the RCRA Info database code CA400.

I.G.16. "**Remediation waste**" for the purposes of this Permit means all solid and hazardous wastes, and all media (including ground water, surface water, soils, and sediments) and debris, that are managed for implementing cleanup.

I.G.17. "**Screening Levels**" for the purposes of this Permit are health-based or environmental-based concentrations of hazardous constituents determined to be indicators for the protection of human health and/or the environment.

I.G.18. "**Solid waste**" means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material 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 permits 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). For further clarification of the definition of "Solid Waste", refer to 40 CFR § 260.10 and § 261.2.

I.G.19. A "**solid waste management unit**" (**SWMU**) for the purposes of this permit 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 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).

I.G.20. A "**statement of basis**" is a document that describes the process EPA uses under RCRA to select measures for containing or cleaning up contamination at a hazardous waste management facility. Specific information in the statement of basis includes: description and environmental setting of the facility, names and concentrations of contaminants detected at the facility and associated exposure pathways, selected remedy, innovative technologies considered in determining the remedy, and public involvement requirements under the corrective action.

I.G.21. A **"Temporary Unit"** (TU) for the purposes of this permit includes any temporary tanks and/or container storage areas used solely for treatment or storage of hazardous remediation wastes during specific remediation activities. Designated by the Regional Administrator, such units must conform to specific standards, and may only be in operation for a period of time as specified in this permit.

I.G.22. A **"unit"** for the purposes of this permit includes, but is not limited to, any landfill, surface impoundment, waste pile, land treatment unit, incinerator, injection well, tank, container storage area, septic tank, drain field, wastewater treatment unit, elementary neutralization unit, transfer station, recycling unit, boiler, industrial furnace, thermal treatment system, mechanical treatment system, open burn, open detonation, chemical treatment system or other miscellaneous unit which has been or is used for the management of, or has or is contacting RCRA subject hazardous waste or hazardous constituents.

PART II - CORRECTIVE ACTION

II.A. APPLICABILITY

(40 CFR § 264 Subpart F, § 264.101(a), § 270.32(b)(2), Section 3005(c))

The Conditions of this Part apply to:

II.A.1. The solid waste management units (SWMUs) and areas of concern (AOCs) identified in Appendix A, Table 1, which require no further action under this permit at this time;

II.A.2. The SWMUs and AOCs identified in Appendix A, Table 2, which require confirmatory sampling or a RCRA Facility Investigation (RFI);

II.A.3. The SWMUs and AOCs identified in Appendix A, Table 3, for which a remedy has been selected;

II.A.4. Any additional SWMUs or AOCs discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means; as used in this Part of the Permit, the terms "discover", "discovery", or "discovered" refer to the date on which the Permittee either, (1) visually observes evidence of a new SWMU or AOC, (2) visually observes evidence of a previously unidentified release of hazardous constituents to the environment, or (3) receives information which suggests the presence of a new release of hazardous waste or hazardous constituents to the environment;

II.A.5. Contamination migrating beyond the facility boundary is applicable to this Part. The Permittee shall implement corrective actions beyond the facility boundary where necessary to protect human health and the environment, unless the Permittee demonstrates to the satisfaction of the Regional Administrator that, despite the Permittee's best efforts, as determined by the Regional Administrator, the Permittee was unable to obtain the necessary permission to undertake such actions. The Permittee 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 shall be required.

II.B. NEWLY IDENTIFIED SWMUs AND AOCs

(40 CFR § 270.14(d), Section 3005(c))

II.B.1. The Permittee shall notify the Regional Administrator in writing, within fifteen (15) calendar days of discovery, of any suspected new AOC as discovered under Condition II.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.). The Regional Administrator may conduct, or require the Permittee to conduct, further assessment (i.e., Confirmatory Sampling) in order to determine the status of the suspected AOC. The Regional Administrator will notify the Permittee in writing of the final determination as to the status of the suspected AOC. If the Regional Administrator determines that further investigation of an AOC is required, the permit will be modified in accordance with 40 CFR § 270.41.

II.B.2. The Permittee shall notify the Regional Administrator in writing, within fifteen (15) calendar days of discovery, of any additional SWMU as discovered under Condition II.A.4.

II.B.3. The Permittee shall prepare and submit to the Regional Administrator, within ninety (90) calendar days of notification, a SWMU Assessment Report (SAR) for each SWMU identified under Condition II.B.2. 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 40 CFR § 270.14(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).

II.B.4. Based on the results of the SAR, the Regional Administrator shall determine the need for further investigations at the SWMUs covered in the SAR. If the Regional Administrator determines that such investigations are needed, the Permittee shall be required to prepare a plan for such investigations as outlined in Condition II.D.2. or II.E.1.b.

II.C. NEWLY DISCOVERED RELEASES FROM SWMUs or AOCs
(40 CFR § 270.14(d), Section 3005(c))

II.C.1. The Permittee shall notify the Regional Administrator 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 II.A.2. or SWMUs or AOCs identified in Condition II.A.4. for which further investigation under Condition II.B.4. was not required.

II.C.2. If the Regional Administrator determines that further investigation of the SWMUs or AOCs is needed, the Permittee shall be required to prepare a plan for such investigations as outlined in Condition II.E.1.b.

II.D. CONFIRMATORY SAMPLING (CS)
(40 CFR § 270.14(d))

II.D.1.a. The Permittee has previously implemented confirmatory sampling at Grenada Manufacturing, LLC, for all SWMUs and AOCs.

II.D.1.b. To the extent deemed necessary by the Regional Administrator, the Permittee shall prepare and submit a CS Work Plan for each unit identified under Condition II.A.2 for which confirmatory sampling is required but confirmatory sampling has not been implemented. The CS Work Plan shall be submitted within forty-five (45) calendar days from the effective date of this permit. The CS Work Plan 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. In order to partly or wholly satisfy the CS requirement, previously existing data may be submitted with the work plan for the Regional Administrator's consideration.

II.D.2. Upon notification by the Regional Administrator, the Permittee shall prepare and submit a Confirmatory Sampling (CS) Work Plan for suspected AOCs per Condition II.B.1. or newly identified SWMUs per Condition II.B.4. The work plan shall be submitted within forty-five (45) calendar days of notification by the Regional Administrator that a CS Work Plan is required. The CS Work Plan shall meet the basic requirements listed in Condition II.D.1.b.

II.D.3. The CS Work Plan must be approved by the Regional Administrator, in writing, prior to implementation. The Regional Administrator shall specify the start date of the CS Work Plan schedule in the letter approving the CS Work Plan. If the Regional Administrator disapproves the CS Work Plan, the Regional Administrator shall either (1) notify the Permittee in writing of the CS Work

Plan's deficiencies and specify a due date for submission of a revised CS Work Plan, (2) revise the CS Work Plan and notify the Permittee of the revisions, or (3) conditionally approve the CS Work Plan and notify the Permittee of the conditions.

II.D.4. The Permittee shall implement the confirmatory sampling in accordance with the approved CS Work Plan.

II.D.5. The Permittee shall prepare and submit to the Regional Administrator in accordance with the schedule in the approved CS Work Plan, a Confirmatory Sampling (CS) Report identifying all SWMUs or AOCs 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. If submission of the CS Report coincides with submission of the RFI Report, then the CS Report and the RFI Report may be combined into one submission.

II.D.6. Based on the results of the CS Report, the Regional Administrator shall determine the need for further investigations at the SWMUs or AOCs covered in the CS Report. If the Regional Administrator determines that such investigations are needed, the Permittee shall be required to prepare a plan for such investigations as outlined in Condition II.E.1.b. The Regional Administrator will notify the Permittee of any no further action decision.

II.E. RCRA FACILITY INVESTIGATION (RFI)
(40 CFR § 264.101)

II.E.1. RFI Work Plan(s)

The Permittee has previously implemented a RCRA Facility Investigation (RFI) for all SWMUs and AOCs currently identified at the Grenada Manufacturing, LLC facility.

II.E.1.a. To the extent deemed necessary by the Regional Administrator, if an RFI Work Plan has not been submitted for a unit identified in II.A.2 and Appendix A, Table 2, the Permittee shall prepare and submit to the Regional Administrator, within ninety (90) calendar days of the effective date of this permit, a RCRA Facility Investigation (RFI) Work Plan(s) for those units identified in Condition II.A.2. This Work Plan shall be developed to meet the requirements of Condition II.E.1.c.

II.E.1.b. The Permittee shall prepare and submit to the Regional Administrator, within ninety (90) calendar days of notification by the Regional Administrator, an RFI Work Plan for those units identified under Condition II.B.4., Condition II.C.2., or Condition II.D.6. The RFI Work Plan(s) shall be developed to meet the

requirements of Condition II.E.1.c.

II.E.1.c. The RFI Work Plan(s) shall meet the requirements as specified in Appendix B unless otherwise directed by the Regional Administrator. The RFI Work Plan(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, soil, surface water, and groundwater. The Permittee 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 Work Plan(s). Such deletions of a unit, media or pathway from the RFI(s) are subject to the approval of the Regional Administrator. The Permittee 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 Regional Administrator. In addition, the scope of the RFI Work Plan(s) shall include all investigations necessary to ensure compliance with 40 CFR § 264.101(c).

II.E.1.d. The RFI Work Plan(s) must be approved by the Regional Administrator, in writing, prior to implementation. The Regional Administrator shall specify the start date of the RFI Work Plan schedule in the letter approving the RFI Work Plan(s). If the Regional Administrator disapproves the RFI Work Plan(s), the Regional Administrator shall either (1) notify the Permittee in writing of the RFI Work Plan's deficiencies and specify a due date for submission of a revised RFI Work Plan, (2) revise the RFI Work Plan and notify the Permittee of the revisions and the start date of the schedule within the approved RFI Work Plan, or (3) conditionally approve the RFI Work Plan and notify the Permittee of the conditions.

II.E.2. RFI Implementation

The Permittee shall implement the RFI(s) in accordance with the approved RFI Work Plan(s). The Permittee shall notify the Regional Administrator at least twenty (20) days prior to any sampling activity.

II.E.3. RFI Reports

II.E.3.a. The Permittee shall prepare and submit to the Regional Administrator Draft and Final RCRA Facility Investigation Report(s) for the investigations conducted pursuant to the RFI Work Plan(s) submitted under Condition II.E.1. The Draft RFI Report(s) shall be submitted to the Regional Administrator for review in accordance with the schedule in the approved RFI Work Plan(s). The Final RFI Report(s) shall be submitted to the Regional Administrator within thirty (30)

calendar days of receipt of the Regional Administrator's final 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 the facility, 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 RFI Report is a summary of only the initial phase investigatory work or based on current investigations, further investigation is necessary; an Interim RFI Report summarizing the initial phase investigation shall be submitted incorporating a work plan for the final phase investigatory actions required based on the initial findings. Approval of the final phase work plan shall be carried out in accordance with Condition II.E.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.

II.E.3.b. The Permittee shall submit to the Regional Administrator, along with the Interim and Final RFI Report(s), screening levels based on the latest EPA guidance or as otherwise directed by the Regional Administrator for each of the hazardous constituents reported in Condition II.E.3.a.

II.E.3.c. The Regional Administrator will review the RFI Report(s), including the screening levels described in Condition II.E.3.b. The Regional Administrator shall notify the Permittee of the need for further investigative action if necessary and, if appropriate at this moment of the investigation, inform the Permittee, if not already notified, of the need for a Corrective Measures Study to meet the requirements of II.G and 40 CFR § 264.101. The Regional Administrator will notify the Permittee of any no further action decision. Any further investigative action required by the Regional Administrator shall be prepared and submitted in accordance with a schedule specified by the Regional Administrator and approved in accordance with Condition II.E.1.d.

II.E.3.d. If the time required to conduct the RFI(s) is greater than one hundred eighty (180) calendar days, the Permittee shall provide the Regional Administrator with quarterly RFI Progress Reports (90 day intervals) beginning ninety (90) calendar days from the start date specified by the Regional Administrator in the RFI Work Plan 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 <u>any</u> deviations from the approved RFI Work Plan during the

reporting period;

iv. Summaries of any significant 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, data, etc.

II.F. INTERIM MEASURES (IM)
(40 CFR § 264.101)

II.F.1. IM Work Plan

II.F.1.a. The Regional Administrator may require interim measures if it is necessary to protect human health and the environment (considering specific site conditions and federal regulations).

Upon notification by the Regional Administrator, the Permittee shall prepare and submit an Interim Measures (IM) Work Plan for any SWMU or AOC which the Regional Administrator determines is necessary. IM are necessary in order to minimize or prevent the further migration of contaminants and limiting actual or potential human and environmental exposure to contaminants while long-term corrective action remedies are evaluated and, if necessary, implemented. The IM Work Plan shall be submitted within thirty (30) calendar days of such notification and shall include the elements listed in II.F.1.c. Such interim measures may be conducted concurrently with investigations required under the terms of this permit.

Units having an approved IM Work Plan shall comply with Condition II.F.2 and beyond to govern implementation of the IM requirements for the unit(s).

II.F.1.b. The Permittee may initiate IM at a SWMU or AOC by submitting the appropriate notification pursuant to Condition I.D.12. The Regional Administrator will process Permittee-initiated IM by either conditionally approving the IM or imposing an IM Work Plan per Condition II.F.1.a. Permittee-initiated IM shall be considered conditionally approved unless the Regional Administrator specifically imposes an IM Work Plan within thirty (30) calendar days of receipt of notification of the Permittee-initiated IM. The scope and success of Permittee-initiated IM conditionally approved per Condition II.F.1.b. shall be subject to subsequent in-depth review; the Regional Administrator will either comment on or approve the Permittee-initiated IM. Permittee-initiated IM must follow the progress and final reporting requirements in Condition II.F.3.

II.F.1.c. The IM Work Plan shall ensure that the interim measures 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 Work Plan shall include: the interim measures objectives, procedures for implementation (including any designs, plans, or specifications), and schedules for implementation.

II.F.1.d. The IM Work Plan imposed under Condition II.F.1.a. shall be approved by the Regional Administrator, in writing, prior to implementation. The Regional Administrator shall specify the start date of the IM Work Plan schedule in the letter approving the IM Work Plan. If the Regional Administrator disapproves the IM Work Plan, the Regional Administrator shall either (1) notify the Permittee in writing of the IM Work Plan's deficiencies and specify a due date for submission of a revised IM Work Plan, (2) revise the IM Work Plan and notify the Permittee of the revisions and the start date of the schedule within the approved IM Work Plan, or (3) conditionally approve the IM Work Plan and notify the Permittee of the conditions.

II.F.2. IM Implementation

II.F.2.a. The Permittee shall implement the interim measures imposed under Condition II.F.1.a. in accordance with the approved IM Work Plan.

II.F.2.b. The Permittee shall give notice to the Regional Administrator as soon as possible of any planned changes, reductions or additions to the IM Work Plan imposed under Condition II.F.1.a. or initiated by the Permittee under Condition II.F.1.b.

II.F.2.c. Final approval of corrective action required under 40 CFR § 264.101 which is achieved through interim measures shall be in accordance with 40 CFR § 270.41 and Condition II.H. as a permit modification.

II.F.3. IM Reports

II.F.3.a. If the time required for completion of interim measures imposed under Condition II.F.1.a. or implemented under Condition II.F.1.b. is greater than one year, the Permittee shall provide the Regional Administrator with progress reports at intervals specified in the approved Work Plan or semi-annually for Permittee initiated interim measures. The Progress Reports shall contain the following information at a minimum:

i. A description of the portion of the interim measures completed;
ii. Summaries of findings;

iii. Summaries of any deviations from the IM Work Plan during the reporting period;
iv. Summaries of any problems or potential problems encountered during the reporting period; and
v. Projected work for the next reporting period.

II.F.3.b. The Permittee shall prepare and submit to the Regional Administrator, within ninety (90) calendar days of completion of interim measures conducted under Condition II.F., an Interim Measures (IM) Report. The IM Report shall contain the following information at a minimum:

i. A description of interim measures implemented;
ii. Summaries of results;
iii. Summaries of all problems encountered;
iv. Summaries of accomplishments and/or effectiveness of interim measures;
v. Copies of all relevant laboratory/monitoring data, etc. in accordance with Condition I.D.9.

II.G. CORRECTIVE MEASURES STUDY

(40 CFR § 264.101, § 264.552)

II.G.1. The Permittee shall prepare and submit to the Regional Administrator a CMS for those SWMUs and AOCs where hazardous constituents have come to be located at concentrations exceeding those appropriate for the protection of human health and the environment (Appendix A, Figure 2 and Table 3). The CMS shall be submitted within ninety (90) calendar days of notification by the Regional Administrator that a CMS is required. The CMS shall be developed to meet the requirements of Condition II.G.2. The Permittee may seek approval from the Regional Administrator for concurrent RFI/CMS. The CMS may be performed concurrent with the RFI process if the Regional Administrator determines that sufficient investigative details are available to allow concurrent action.

II.G.2. The CMS shall meet the requirements of Appendix C at a minimum. The CMS shall include schedules of implementation and completion of specific actions necessary to complete a CMS. The Permittee must provide sufficient justification and/or documentation for any unit deleted from the CMS. Such deletion of a unit is subject to the approval of the Regional Administrator. The scope of the CMS shall include all investigations necessary to ensure compliance with RCRA § 3005(c)(3), 40 CFR § 264.101, § 264.552, and § 270.32(b)(2). The Permittee shall implement corrective actions beyond the facility boundary, as set forth in Condition II.A.5.

II.G.3. The Permittee shall submit the draft CMS as agreed upon by the Permittee and the Regional Administrator.

II.G.4. The Regional Administrator shall either approve or disapprove, in writing, the CMS. If the Regional Administrator disapproves the CMS, the Regional Administrator shall either (1) notify the Permittee in writing of the CMS's deficiencies and specify a due date for submission of a revised CMS, (2) revise the CMS and notify the Permittee of the revisions, or (3) conditionally approve the CMS and notify the Permittee of the conditions. This modified CMS becomes the approved CMS.

II.H. REMEDY APPROVAL AND PERMIT MODIFICATION
(40 CFR § 264.101, § 264.552, §270.41, § 270.42)

II.H.1. A Remedy Decision (CA400) 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 and existing regulations. The selected remedy may include any interim measures implemented to date.

II.H.2. EPA will provide the public an opportunity to review and comment on the Statement of Basis. Pursuant to 40 CFR § 270.41, a permit modification will be initiated by the Regional Administrator with a 60-day public comment period, after recommendation of a remedy under Condition II.H.1. This modification will serve to incorporate a final remedy, including a CAMU if necessary, and CMS Remedy implementation schedules into this Permit. The permit modification shall include a schedule and date for Remedy Construction (CA550).

II.H.3. Following the public comment period, EPA may approve the CMS and select a final corrective measure(s) or require Permittee to revise the Report and/or perform additional corrective measures studies.

II.H.4. EPA will notify Permittee of the final corrective measure selected by EPA in the Final Decision and Response to Comments ("RTC"). The notification will include EPA's reasons for selecting the corrective measure.

II.H.5. Upon the effective date of the permit modification approving the selected remedy, the Permittee shall implement the approved remedy per the CMS remedy implementation schedule. The Permittee shall submit to the Regional Administrator, remedy implementation and effectiveness reports annually.

II.H.6. Within one hundred and twenty (120) calendar days after this Permit has been modified for remedy selection, the Permittee shall provide cost estimates and demonstrate financial assurance for completing the approved remedy. Thereafter, the Permittee shall review the remedy cost estimates, adjust the financial

assurance instrument, and submit to the Regional Administrator any necessary changes in the cost estimates and adjustments to the financial assurance instrument annually. The mechanism for financial assurance shall be one that is described and allowable under 40 CFR § 264.140 through § 264.151 Subpart H unless otherwise agreed to by the Regional Administrator.

II.I. SELECTED REMEDY
(40 CFR § 264.101, § 264.552, §270.41, § 270.42)

II.I.1. Cleanup levels for this remedy are based on the continued use of the land as commercial and industrial use, where appropriate. Where offsite releases have occurred, cleanup levels will be determined based on the actual or planned future use of the affected land as appropriate.

II.I.2. The Permittee is required to perform corrective/remedial measures on the SWMUs and AOCs identified in Appendix A, Table 3, as requiring further corrective action, as well as for groundwater under the site. The Permittee shall implement the remedies recommended by the Permittee in the Corrective Measures Study Report (August 2003), the Design Basis Report for the Permeable Reactive Barrier (PRB) Groundwater Interim Measure (September 2004), and the Final Corrective Measures Pre-Design Investigation Report (July 2008), in accordance with the schedule put forth in the Corrective Measures Study Report (August 2003), or approved revisions thereof.

II.I.3. Sampling, analysis, monitoring, and reporting shall be as specified in the Design Basis Report for the PRB, dated September 2004, or approved revisions thereof.

II.I.4. The permeable reactive barrier, or an alternate final groundwater corrective measure should one be selected by EPA, is required to be in place until the levels of contaminants in groundwater have been reduced to appropriate cleanup standards agreed upon by the Permittee and the EPA. These cleanup standards are Maximum Contaminant Levels (MCLs) or Alternate Concentration Limits, calculated using a procedure set forth and approved by MDEQ, if no MCLs exist.

II.I.5. Waste has been left in place under the Main Plant Building at SWMU 27, in the vicinity of the former Chrome Plating Lines. Hexavalent chromium contamination above industrial preliminary remediation goals has been left in place because it is commingled with the TCE and toluene plumes. Remediation of the plume under the main plant building is impractical while the building remains occupied. The waste left in place must be monitored down gradient of the main plant building on a regular basis as long as the waste is left in place.

II.I.6. At such time as the Main Plant Building is removed, the chromium laden waste left in place under the building must be remediated to either industrial or

residential levels, whichever is appropriate for the planned future land use of the facility. The presence of the Main Plant Building acts as a cover over the impacted soil left in place.

II.I.7. SWMU 12, the Wet Well (a large in-ground sump that is part of the waste water treatment system), requires no further remedial action unless it is found to be leaking or until it is taken out of service. This unit was inspected and cleaned on July 2, 2002. This Permit requires that inspection and maintenance be conducted by a qualified firm independent of the Permittee every 5 years, and the results of the third party inspection be furnished to EPA. At such time that this unit is found to be leaking or is scheduled to be taken out of service, the need for corrective measures beyond those in place will be evaluated in accordance with this permit.

II.J. CORRECTIVE MEASURES IMPLEMENTATION (CMI)
(40 CFR §264.101, §264.552)

II.J.1. The Permittee shall submit, for review by the Regional Administrator, effectiveness reports on the corrective measures on a semi-annual or other basis as agreed upon.

II.J.2. If the Corrective Measures Effectiveness Report concludes that the selected corrective measures are ineffective, then the Effectiveness Report shall propose alternate corrective measures to fulfill the cleanup objectives in Condition II.I. If the Regional Administrator's review finds that the selected corrective measures are ineffective, then within ninety (90) calendar days of notification by the Regional Administrator that the current corrective measures are not effective in attaining the remedial objectives/goals, the Permittee shall submit a revised Corrective Action Work Plan containing alternate corrective measures to satisfy the remedy objectives/goals found in Condition II.I.

II.J.3. Within ninety (90) days after receipt of notification by the Regional Administrator that the Corrective Measures Implementation (CMI) is complete, the Permittee shall submit, for review by the Regional Administrator, a Draft CMI Report. The Draft CMI Report shall include a certification of completion of the corrective measures activities. The Draft CMI Report shall demonstrate compliance with all media cleanup objectives/goals. The determination of whether corrective measures activities are complete shall be made by the Regional Administrator in accordance with Condition II.L. The Regional Administrator will either (1) approve the CMI Report or (2) notify the Permittee in writing of the CMI Report's deficiencies and specify a due date for submittal of a revised CMI Report. The Final CMI Report shall be submitted to the Regional Administrator within sixty (60) days of receipt of the Regional Administrator's final comments on the draft CMI Report. Approval of the Final CMI Report constitutes completion of corrective action.

II.K. INSTITUTIONAL CONTROLS
(40 CFR §270.42, 3004(u) and (v))

II.K.1. The facility must consider institutional or other appropriate non-engineering controls for protection of human health and the environment from contamination left in place at any SWMUs or AOCs closed with waste in place. Institutional controls may also be used to protect the corrective measures if the HSWA permit is terminated at the completion of corrective action.

II.K.2. The facility must implement a Restrictive Use Agreed Order with the MDEQ or other similar and appropriate instrument, which includes the controls listed in Condition II.K.2.a. through II.K.2.i. for protection of human health and the environment from contamination left in place at SWMU 27, the Chrome Plating Line, any other SWMUs closed with waste in place, and for the contaminated groundwater at the entire facility. These institutional controls are recorded with the Chancery Clerk's Office of Grenada County in the State of Mississippi. Institutional controls may be used to protect the corrective measures before the HSWA permit is terminated at the completion of corrective action. This will result in Corrective Action Termination with Controls.

a. No person shall install any groundwater wells or extract the groundwater in the uppermost (or other appropriate) aquifer located at or underlying the Property for any purpose, potable or non-potable, except for groundwater sampling, groundwater investigations, or remedial activities, as warranted and approved by the EPA or the authorized State.

b. The Property is hereby restricted to commercial and/or industrial land use only, as those terms are currently defined, or may be defined in the future, by zoning ordinance(s) of the City, County, or any other local governmental entity with jurisdiction and authority to regulate the land use at the Property.

c. There shall be no surface or subsurface demolition, excavation, drilling, utility work or other activities in the area at SWMU 27, the Chrome Plating Line that could create exposure to subsurface contaminated media other than in connection with work performed under the corrective action plan, without the prior written approval of the EPA or the MDEQ.

d. Any owner must grant access to the Property at all reasonable times to the EPA, the MDEQ and any private persons (including their contractors, subcontractors and agents) who have not otherwise been granted access to the Property and who are authorized and approved by the EPA or the

MDEQ to undertake environmental activities on the Property relating in any way to the existing RCRA and/or HSWA permit. All parties granted access to the Property under this provision shall conduct their activities on the Property in a manner which minimizes to the fullest extent possible, any disruptions to the use of the Property by the Owner, its successors, or assigns and/or any person having an ownership or property interest in the Property.

e. The Institutional Controls and/or Land Use Restrictions herein shall run with the land and be binding upon all current and future owners of the Property, and all successors and assigns of the Property, or any portion of the Property, including any leasehold interests on the Property or any portion of the Property unless and until the restrictions set forth herein are amended in writing by the owner, its successors or assigns, and approved in writing by the EPA or the MDEQ.

f. Compliance with Institutional Controls and/or Land Use Restrictions contained herein may be enforced by a legal or equitable action brought in a court of competent jurisdiction by or on behalf of one or more of the following parties: (i) the EPA, or its representative (ii) the MDEQ, or its representative (iii) any local Government entity with the jurisdiction and legal authority to regulate land use at the Property. Delay or failure on the part of any of the foregoing parties to take any action to enforce compliance with the Institutional Controls or Land Use Restrictions herein shall not bar any subsequent enforcement with respect to the failure of compliance in question, nor shall any delay or failure on the part of any of the foregoing parties to take any action to enforce compliance with the Institutional Controls or Land Use Restrictions herein be deemed a waiver of the right of any such party to take any such action with respect to any failure of compliance.

g. Institutional Controls and/or Land Use Restrictions shall be recorded by the Permittee in the same manner as a deed in the Office of the Recorder of the appropriate City, County, or other local governmental entity with jurisdiction and authority to regulate the land use at the Property and shall be deemed incorporated by reference in any instrument hereafter conveying any interest in the Property.

h. If any one or more provisions of the Institutional Controls and/or Land Use Restrictions contained in this Permit shall be found to be unenforceable in any respect, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby. These Institutional Controls and/or Land Use

Restrictions shall be governed by and interpreted in accordance with the laws of the State of Mississippi.

i. Any Instrument hereafter conveying any interest in the Property or any portion thereof shall contain a recital acknowledging this Declaration of Institutional Controls and/or Land Use Restrictions and providing the recording location of this Declaration.

j. The Institutional Controls and/or Land Use Restrictions listed shall survive the Permit.

II.L. COMPLETION OF CORRECTIVE ACTION
(40 CFR §270.42, 3004(u) and (v))

II.L.1. The corrective action shall be considered complete when the Regional Administrator determines that: a) compliance with the media cleanup standards and objectives has been achieved, and b) all actions required to control the source(s) of contamination have been satisfied.

II.L.2. Corrective Action shall be considered complete with or without controls in place where the facility owner has satisfied all obligations under sections 3004(u) and (v) of the Hazardous and Solid Waste Act.

II.L.3. Upon completion of the corrective action for the entire facility or a portion of the facility, the Permittee shall submit to the Regional Administrator, by registered mail, a request for termination of the corrective action Schedule of Compliance according to procedures for Class III modifications in §270.42. The request shall include a certification that the corrective measures have been completed in accordance with the requirements agreed upon by the Permittee and the EPA.

II.L.4 When, upon receipt of the certification, and in consideration of public comments and any other relevant information, the Regional Administrator determines that the corrective measures have been completed in accordance with terms and conditions in this Permit and the requirements for completion, the Regional Administrator shall: a) terminate the HSWA permit or b) modify the permit to terminate the corrective action schedule of compliance for SWMUs that are No Further Action at this time. Upon termination of the Permit or modification of the Permit for completion of corrective action at the entire facility, EPA shall release the Permittee from the financial assurance requirements of this Permit.

II.M. CORRECTIVE ACTION SCHEDULE OF COMPLIANCE MODIFICATION
(40 CFR § 264.101(b), § 270.41(a)(4))

II.M.1. If at any time the Regional Administrator determines that modification of the Corrective Action Schedule of Compliance is necessary, the Regional Administrator may initiate a modification to the Schedule of Compliance (Appendix D).

II.M.2. Modifications that are initiated and finalized by the Regional Administrator will be in accordance with the applicable provisions of 40 CFR § 270. The Permittee may also request a permit modification in accordance with 40 CFR § 270 to change the Schedule of Compliance.

II.N. WORK PLAN AND REPORT REQUIREMENTS
(40 CFR § 270.11, § 270.30(k))

II.N.1. All work plans and schedules shall be subject to approval by the Regional Administrator prior to implementation to assure that such work plans and schedules are consistent with the requirements of this Permit and with applicable regulations. Any approved schedule of implementation contained in any work plan, addendum, or additional phases becomes part of the permit. The Permittee shall revise all submissions and schedules as specified by the Regional Administrator. Upon approval the Permittee shall implement all work plans and schedules as written.

II.N.2. All work plans and reports shall be submitted in accordance with the approved schedule. Extensions of the due date for submissions may be granted by the Regional Administrator based on the Permittee's demonstration that sufficient justification for the extension exists.

II.N.3. If the Permittee at any time determines that the SAR information required under Condition II.B., the CS Work Plan under Condition II.D., or RFI Work Plan(s) required under Condition II.E. no longer satisfy the requirements of 40 CFR § 264.101 or this Permit for prior or continuing releases of hazardous waste or hazardous constituents from solid waste management units and/or areas of concern, the Permittee shall submit an amended Work Plan(s) to the Regional Administrator within ninety (90) calendar days of such determination.

II.N.4. Two (2) copies of all reports and work plans and an electronic version of the same reports/work plans shall be provided by the Permittee to the Restoration and Underground Storage Tank Branch/RCRA Division. These shall be submitted as follows:

Two copies of each document shall be submitted to the RCRA Project Manager at the following address:

Project Manager
Corrective Action Section
Restoration & Underground Storage Tank Branch
RCRA Division
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street
Atlanta, Georgia 30303

An electronic copy of each document shall be submitted to the Chief of the Corrective Action Section at the following address:

Chief, Corrective Action Section
Restoration & Underground Storage Tank Branch
RCRA Division
U.S. Environmental Protection Agency, Region 4
[name]@epa.gov

II.O. APPROVAL/DISAPPROVAL OF SUBMISSIONS
(40 CFR § 264.101)

II.O.1. The Regional Administrator or delegated representative will review the work plans, reports, schedules, and other documents ("submissions") which require the Regional Administrator's approval in accordance with the conditions of this Permit. The Regional Administrator or delegated representative will notify the Permittee in writing of any submission that is disapproved, and the basis therefore. Condition II.P shall apply only to submissions that have been disapproved and revised by the Regional Administrator or delegated representative, or that have been disapproved by the Regional Administrator or delegated representative, then revised and re-submitted by the Permittee, and again disapproved by the Regional Administrator or delegated representative.

II.P. DISPUTE RESOLUTION
(40 CFR § 264.101)

Notwithstanding any other provision in this Permit, in the event the Permittee disagrees, in whole or in part, with the Regional Administrator's revision of a submission or disapproval of any revised submission required by the Permit, the following may, at the Permittee's discretion, apply:

II.P.1.a. In the event that the Permittee chooses to invoke the provisions of this Section, the Permittee shall notify the Regional Administrator in writing within thirty (30) days of receipt of the Regional Administrator's revision of a submission or disapproval of a revised submission. Such notice shall set forth the specific

matters in dispute, the position the Permittee asserts should be adopted as consistent with the requirements of the permit, the basis for the Permittee's position, and any matters considered necessary for the Regional Administrator's determination.

II.P.1.b. The Regional Administrator and the Permittee shall have an additional thirty (30) days from EPA's receipt of the notification provided for in Condition II.P.1.a. to meet or confer to resolve any disagreement.

II.P.1.c. In the event agreement is reached, the Permittee shall comply with the terms of such agreement or if appropriate submit the revised submission and implement the same in accordance with and within the time frame specified in such agreement.

II.P.1.d. If agreement is not reached within the thirty (30) day period, the Regional Administrator will notify the Permittee in writing of his/her decision on the dispute, and the Permittee shall comply with the terms and conditions of the Regional Administrator's decision in the dispute. For the purposes of this provision in this Permit, the responsibility for making this decision shall not be delegated below the RCRA Division Director.

II.P.1.e. With the exception of those conditions under dispute, the Permittee shall proceed to take any action required by those portions of the submission and of the Permit that the Regional Administrator determines are not affected by the dispute.

APPENDIX A

GRENADA MANUFACTURING, LLC
FIGURES AND TABLES

FIGURE 1: FACILITY MAP

(referenced per Condition I.A. EFFECT OF PERMIT)

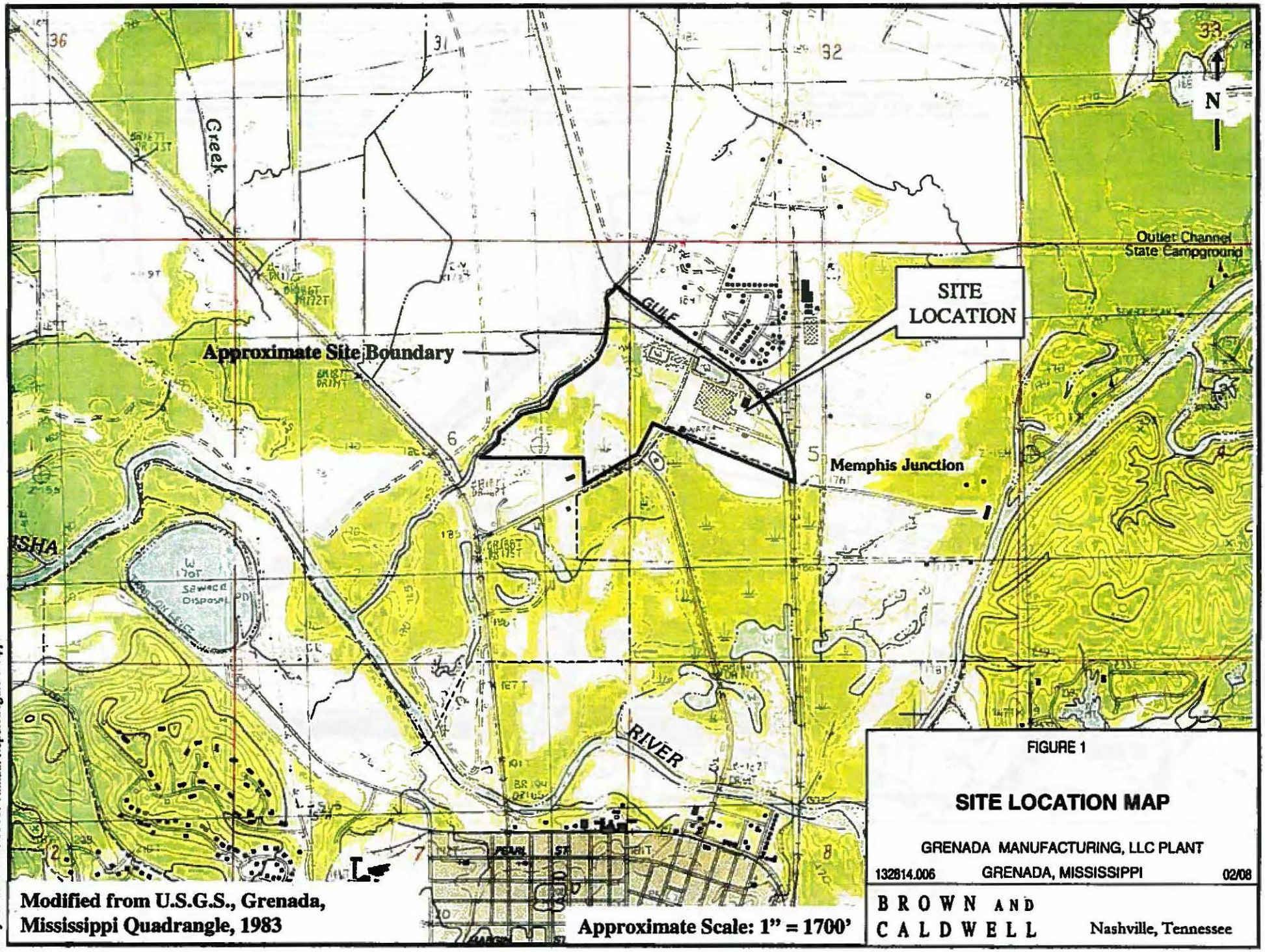
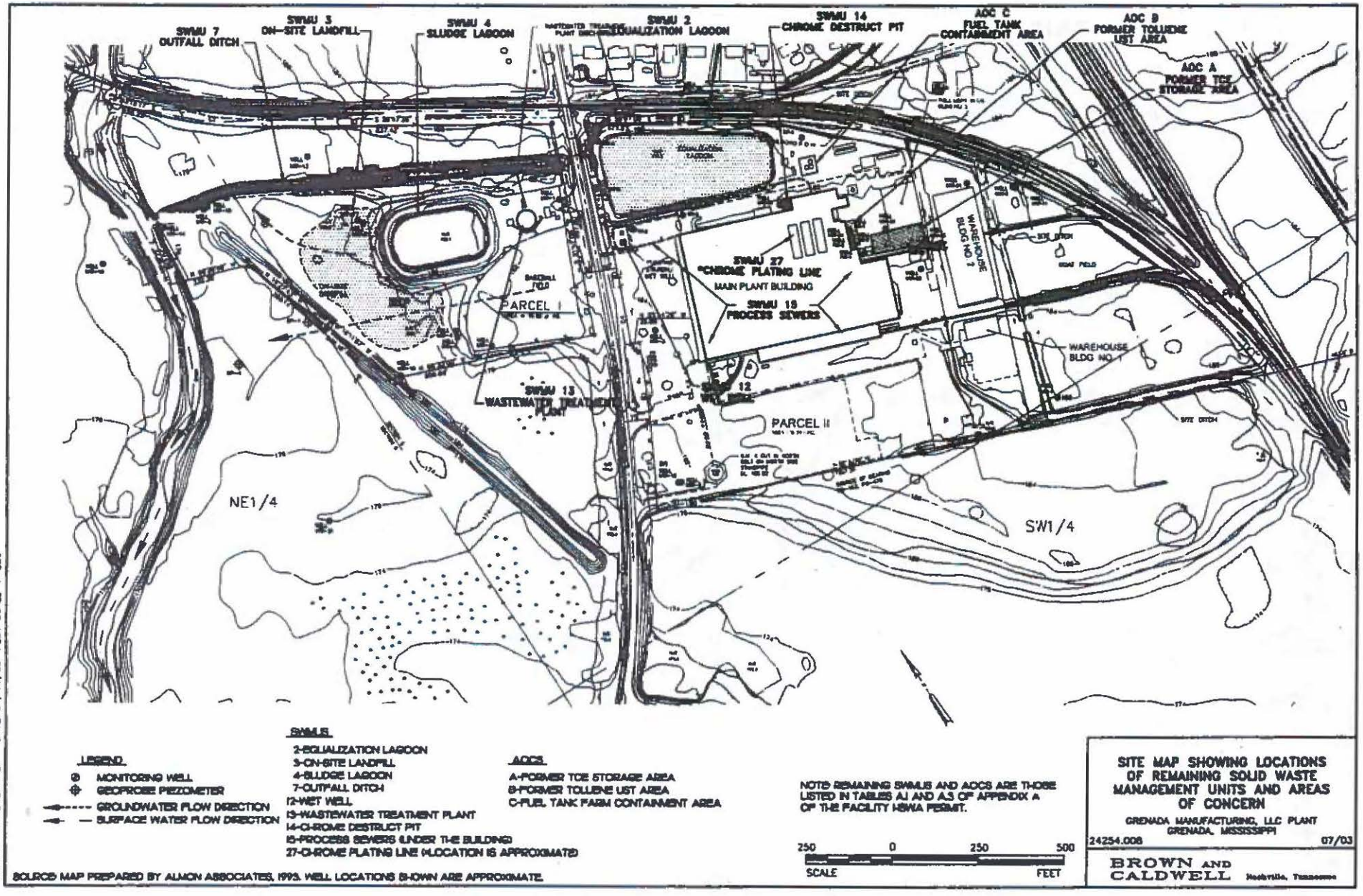


FIGURE 2: SWMUs and AOCs LOCATION MAP

(referenced per Condition I.A. EFFECT OF PERMIT)



DRAWING NO. 24254-24 DATE: 07/11/03 PLOT SCALE 1=250

TABLE 1. SWMUs and AOCs Requiring No Further Action At This Time

SWMU/ AOC	Type of Unit	Unit Comment	Dates of Operation	Potentially Affected Media
SWMU 1 * Less-Than-90-Day Drum Storage Area	Container Storage Area	This unit manages used paint, paint waste toluene (D001, F005), spent solvents, chromic acid sludge (D002, D007), and waste mineral spirits in 55-gallon drums for less than 90 days. Trichloroethylene (TCE) still-bottoms (F001) were managed in the unit until approximately 1992. The unit is regularly inspected by the MDEQ as part of the RCRA operating permit.	Mid 1980s to Present	N/A **
SWMU 2 * Equalization Lagoon	Surface Impound-ment	This unit received roll forming department wastewater, boiler blow down, boil-off, butler wash, buff wash, alkaline rinse waters and cooling waters. Until the late 1970's, sanitary sewage from the facility was released to the unit. Until 1990, the unit received electroplating wastewaters containing hexavalent chromium (F006, D007). Closed as a RCRA regulated unit with waste in place in 1994 in a lined, capped and monitored landfill cell. Part of the MDEQ RCRA post closure permit.	1961 to 1994	Soil Groundwater
SWMU 3 On-Site Landfill	Landfill	This unit managed waste including buffing compounds, still-bottoms from TCE recovery operations, and paint sludges. Waste excavated in 1996. Closed with some waste in place. Residual groundwater contamination will be remediated by monitored natural attenuation, in effect for degradation of TCE, and the Permeable Reactive Barrier.	1961 to 1967	Soil Groundwater

SWMU 5 Former Solid Waste Incinerators	Incinerators	According to facility representatives, only plant trash was burned in these units. No evidence of a release. This area does not need to be tested for dioxins and furans as, in EPA's judgment, the types of waste burned at this location would not lead to the formation of these compounds.	1961 to 1996	N/A
SWMU 6 Equipment Lay-down Area	Lay-down Area	This unit stores spare equipment and parts that may be used in the future. No evidence of a release.	1961 to Present	N/A
SWMU 7 Outfall Ditch	NPDES Outfall Ditch	This unit receives discharge from the Wastewater Treatment Plant and portions of the Drainage Ditches (SWMU 16). Prior to 1977, effluent from the Equalization Lagoon (SWMU 2) was also received by the Outfall Ditch. No Further Action until taken out of service; part of the Waste Water Treatment Plant. Any residual contamination will be remediated by the Permeable Reactive Barrier.	1961 to Present	Soil Groundwater
SWMU 8 Former Burn Area	Burn Area	According to facility representatives, packaging materials, paper, wood, sisal and cloth wheels, cafeteria waste, and other miscellaneous refuse were burned in this unit. No evidence of a release. This area does not need to be tested for dioxins and furans as, in EPA's judgment, the types of waste burned at this location would not lead to the formation of these compounds.	1961 to approximately 1974	N/A
SWMU 9 Sumps A, B, & C	Sumps	These units collect waste hydraulic oils containing benzene, drawing compound, motor oils, compressor oil, metal shavings, and lubricant from throughout the facility. No evidence of a release.	1961 to Present	N/A

SWMU 10 Waste Oil Tank	Above-Ground Storage Tank	This unit manages waste oil which includes hydraulic oils, drawing compounds, metal shavings, and lubricants. The tank has secondary containment. No evidence of a release. The secondary containment around this unit must be inspected for rainwater collection and pumped every 3 months if there is more than 6 inches of water in the unit.	1970s to Present	N/A
SWMU 11 Waste Oil Catch Pans	Catch Pans	These units collect hydraulic oils, drawing compound, motor oils, compressor oil, and lubricant from throughout the facility.	Approx. 1961 to Present	Air Soil Groundwater Surface Water
SMU 12 Wet Well	In-ground Tank	This unit manages corrosive alkaline wash waters (D002) generated in the facility operations, non-contact cooling water, mop water, boiler blow down and laboratory sink wash waters. From 1977 until 1993, the unit received a reduced chromium waste stream (D007) as well. Inspected and cleaned July 2, 2002. Inspection and maintenance is required every 5 years.	1977 to Present	N/A
SWMU 13 Wastewater Treatment Plant	Treatment Plant	These units manage and treat wastewater generated in the facility's manufacturing processes, as well as the water supernatant from the Sludge Lagoon (SWMU 4). The wastewater includes corrosive alkaline rinse waters, non-contact cooling water, mop water, boiler blow down, and laboratory sink wash waters. From 1977 until 1993, a reduced chromium waste stream was also received by the unit. No evidence of a release. No Further Action until taken out of service. Any residual groundwater contamination will be remediated by the Permeable Reactive Barrier.	1977 to Present	Soil Groundwater

SWMU 14 Chromium Destruct Pit	Chromium Reduction Unit/Holding Sump	This unit managed hexavalent chromium electroplating wastewater. Clean Closed in 2002.	1961 to 2002	N/A
SWMU 15 Process Sewers	Sewer System	These units transport wastewater that is primarily composed of alkaline rinse waters, non-contact cooling water, mop water, boiler blow down, storm water, and laboratory wastewaters. In the past, the units managed hexavalent chromium wastewater. No Further Action until taken out of service; part of the Waste Water Treatment Plant. Any residual groundwater contamination will be remediated by the Permeable Reactive Barrier.	1961 to Present	Soil Groundwater
SWMU 16 Drainage Ditches	Ditches	These units collect site runoff and storm water from throughout the facility. No evidence of a release. No Further Action until taken out of service; part of the Waste Water Treatment Plant. Any residual groundwater contamination will be remediated by the Permeable Reactive Barrier.	1961 to Present	Soil Groundwater
SWMU 17 Former IDW Drum Storage Area	Storage Area	This unit managed drums containing investigation-derived waste (IDW), which included drilling mud, drill cuttings, purge/development water, decontamination water and trash. Some of the wastes managed were deemed F002 and F005 hazardous wastes. No evidence of a release.	Early 1992 to 1993	N/A
SWMU 18 Buffing Sludge Basement	Storage Basement	This unit collects non-hazardous buffing sludge generated during the wheel cover polishing operations. No evidence of a release.	1961 to Present	N/A

SWMU 19 Buffing Sludge Roll-off	Roll-off Container	This unit manages non-hazardous buffing sludge collected in the Buffing Sludge Basement (SWMU 18) and dust collected by the Cyclone Dust Collector (SWMU 22). No evidence of a release.	1985 to Present	N/A
SWMU 20 Plant Waste Containers	Hoppers and Drums	These units collect plant trash including used sisal and cloth wheels, paper, cafeteria waste, absorbent materials used to clean spills, and other miscellaneous refuse. No evidence of a release.	1961 to Present	N/A
SWMU 21 Parts Washer	Parts Washer	This unit manages spent solvents generated during the cleaning operation of parts. No evidence of a release.	January 1990 to Present	N/A
SWMU 22 Cyclone Dust Collector	Air Emissions Control Device	This unit managed particulate emissions that were produced from the butler machines as they ground the metal product to create a finish. This unit has been removed. No evidence of a release.	Approx. 1961 to Present	N/A
SWMU 23 Biohazard Container	Container	This unit stores bio-hazardous wastes generated at the first aid station. Wastes include bloody materials, cotton swabs, cups for ingested medicine, and surgical gloves. No evidence of a release.	1960s to Present	N/A

SWMU 24 Satellite Accumulation Areas	Satellite Accumulation Drums	These units are collection points for waste toluene generated in the painting operations, spent paint filters, and waste paint rags. Toluene and TCE recovered from the recovery wells installed in the vicinity of the Former Toluene Underground Storage Tank Area (AOC B) and the Former TCE Storage Area (AOC A), respectively, are also accumulated in these units. No evidence of a release.	Approx. 1976 to Present	N/A
SWMU 25 Scrap Metal Roll-offs	Roll-off Containers	These units collect scrap metal including cold roll and galvanized metal that result from a variety of manufacturing processes. No evidence of a release.	1960s to Present	N/A
SWMU 26 Trash Compactor	Compactor	This unit collects general plant trash including packaging materials, paper, wood, sisal and cloth wheels, cafeteria waste, and other miscellaneous refuse. No evidence of a release.	1996 to Present	N/A
AOC C Fuel Tank Farm Containment Area	Secondary Containment	AOC C was a set of tanks along the northeast side of the building. One tank contained sulfuric acid (not used since 1994), one contained sulfur dioxide (not used since 1994), one contained fuel oil #6 (not used since early 1970's), two contained fuel oil #2 (not used since early 1970's), and three contained propane. The tanks and secondary containments have been cleaned and removed.	1960s to 1994	Soil Groundwater

* Unit Regulated by State Permit.

** There are no known impacts to environmental media at this time.

Grenada Manufacturing, LLC
Grenada, Mississippi
MSD 007 037 278

TABLE 2. SWMUs and AOCs Requiring Confirmatory Sampling or a RCRA Facility Investigation *

SWMU/ AOC	Type of unit	Unit Comment	Dates of Operation	Potentially Affected Media

* This table is intentionally left blank.

TABLE 3. SWMUs and AOCs For Which a Remedy Has Been Selected

SWMU/ AOC	Type of Unit	Unit Comment	Dates of Operation	Potentially Affected Media
SWMU 4 Sludge Lagoon	Surface Impoundment	This clay lined unit receives sludge generated in the Wastewater Treatment Plant clarifier (SWMU 13). This unit will be stabilized/solidified and capped in the spring/summer of 2010. Any residual groundwater contamination will be remediated by the Permeable Reactive Barrier.	1977 to Present	Soil Groundwater
SWMU 27 Former Chrome Plating Lines	Chromic Acid Plating Baths	This unit was used as a plating bath for wheel covers and other small parts. Waste left in place. Hexavalent chromium contamination above industrial preliminary remediation goals has been left in place because it is under the main plant building and commingled with the TCE and toluene plumes. There will be a threat to indoor air if remediation is attempted as long as the main plant building exists. At present there is no evidence of chromium waste moving from under the main plant building. If this waste moves, it will be detected by down gradient monitoring wells and remediated by the Permeable Reactive Barrier. Future remediation of this location will be included in the facility's financial assurance plan. Continued groundwater monitoring is required in the permit.	1961 to 2002	Soil Groundwater
AOC A Former Trichloroethylene Storage Area	Contamination Area from Above-Ground Tank Storage Area	The area contained soil and groundwater contaminated with TCE. Source control and removal has taken place and will continue as long as feasible. Residual groundwater contamination will be remediated by the Permeable Reactive Barrier. There is concern with the potential for migration into indoor air from the TCE plume, which is under a portion of the main plant building. Indoor air monitoring took place in 2003, 2004, and 2009 and will continue as long as the main plant building is occupied. Continued groundwater monitoring is required in the permit.	Approx. 1973 to Present. Tanks were removed in the 1980s.	Soil Groundwater Indoor Air

AOC B Former Toluene Underground Storage Tank Area	Contamination Area from former Underground Storage Tank	The unit contained soil and groundwater contaminated with toluene. Source control and removal has taken place and will continue as long as feasible. Residual groundwater contamination will be remediated by the Permeable Reactive Barrier. There is concern with the potential for migration into indoor air from the toluene plume, which is under a portion of the main plant building. Indoor air monitoring took place in 2003, 2004, and 2009 and will continue as long as the main plant building is occupied. Continued groundwater monitoring is required in the permit.	Late 1960s to Present. The tank was taken out of service in 1988.	Soil Groundwater

APPENDIX B

RCRA FACILITY INVESTIGATION (RFI) OUTLINE

RCRA FACILITY INVESTIGATION (RFI) OUTLINE

The purpose of the RFI portion of the RCRA corrective action process is to evaluate the nature and extent of releases of hazardous wastes and/or hazardous constituents and to gather necessary data to support the Corrective Measures Study (CMS) and/or Interim Measures. Planning for the investigation is best accomplished through a logical progression of tasks:

1. Gather information on the source of the release(s) to the environment (Source Characterization),
2. Gather information on the physical aspects of the environment which will affect the migration and fate of the release and identification of exposure pathways for both humans and non-human members of the environment (Environmental Setting),
3. Use Source Characterization and Environmental Setting to develop a conceptual model of the release which will be used to plan and conduct a program to define the nature, rate and extent of the release (Sampling and Analysis Plan).

An RFI Work Plan and RFI Report are generally required elements of the RCRA corrective action process. The requirements for a full, detailed RFI are listed in this Appendix. EPA recognizes that each facility is unique. Therefore, the scope and requirements of the RFI shall be focused to fit the complexity of the site-specific situation. The work plan requirements listed in this Appendix in no way limit the site-specific opportunities for a Permittee. For example, the RFI may be implemented in phases. Relevant information contained in previously developed documents, such as a RCRA Part B permit application, may be referenced as appropriate, but must be summarized in either the RFI Work Plan or the RFI Report. In addition, EPA understands that Risk Assessments are becoming more widely utilized to place characterization information into context and to aid in determining remedial solutions. If a Risk Assessment is expected to be performed in the future, note that Region 4 has developed a series of Risk Bulletins to provide Permittees and their contractors with the general format and process Region 4 expects a Risk Assessment to follow.

In some cases, it may be possible to implement the RFI concurrent with the CMS (also see Appendix C). This approach can save time and money because the earlier in the corrective action process potential remedies can be identified, the more effectively information gathering can be focused. The Agency anticipates that a concurrent RFI/CMS approach may be appropriate in the following types of situations, among others: facilities where removal remedies have been proposed by the owner/operator, facilities with straightforward remedial solutions or where presumptive remedies can be applied, facilities where few remedial options are available, and facilities where the remedy is phased. The Agency will determine on a case-by-case basis if a concurrent RFI/CMS is appropriate. Because of the unique data collection requirements necessary for a remedial solution which includes natural attenuation of contaminants in groundwater, if natural attenuation is expected to be part of the remedial solution, then the Sampling and Analysis Plan should be crafted to include monitoring of specific water quality

parameters unique to natural attenuation (e.g., nitrites/nitrates, ferrous iron, sulfides, dissolved oxygen, methane, hydrogen, etc.).

I. RFI WORK PLAN REQUIREMENTS - ELEMENTS OF THE RFI WORK PLAN

The RFI Work Plan shall include, at a minimum, the following elements:

A. Introduction - Summary of any relevant existing assessment data

The Permittee shall describe the purpose or objective of the RFI Work Plan and provide a summary of any existing environmental data which is relevant to the investigation. The summary should provide the following items, at a minimum:

1. Land ownership history,
2. Facility operating dates,
3. Facility's product(s),
4. Raw materials used in facility operations, wastes generated,
5. Nature and extent of any known contamination,
6. Summary of ongoing Interim Measures and past assessments,
7. Summary of permit objective and how this objective will be satisfied.

B. Environmental Setting

The Permittee shall provide information on the environmental setting at the facility. The Permittee shall characterize the Environmental Setting as it relates to identified sources, pathways and areas of releases of hazardous constituents from Solid Waste Management Units (SWMUs) and/or Areas of Concern (AOCs). Data gaps pertinent to characterization of releases shall be identified and provisions made in Section E to obtain the relevant information to fill the data gap. The Environmental Setting shall cover the following items, at a minimum:

1. Hydrogeology

   The Permittee shall provide a summary of the hydrogeologic conditions at the facility. This discussion shall include, but not be limited to, the following information:

   a. A description of the regional and facility specific geologic and hydrogeologic characteristics affecting ground-water 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, metamorphic foliation, etc.);
iii. Depositional history;
iv. Regional and facility specific ground-water flow patterns (porous media, fracture media, karst media); and
v. Identification and characterization of areas and amounts of recharge and discharge (springs in karst terrane, base level streams and rivers).

b. An analysis of any topographic features that might influence the ground-water flow system (e.g., sinkholes and sinking streams in karst terranes).

c. Based on any existing field data, tests (e.g., pump tests, tracer 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), groundwater flow velocity, groundwater basin discharge;
ii. Lithology, grain size, sorting, degree of cementation;
iii. An interpretation of hydraulic interconnections between saturated zones (i.e., aquifers) and surface waters; 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 up gradient, water wells and/or springs down gradient of the potential contaminant source, a representative description of water level or fluid pressure monitoring including:

i. Water-level contour and/or potentiometric maps, including seasonal variations;
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 and for karst terrane, stormflow.

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, roofs, runways, parking lots, etc.).

2. Soils

The Permittee shall provide an explanation of the soil and rock units above the water table in the vicinity of contaminant release(s). This summary may include, but not be limited to, the following types of information as appropriate:

i. Surface soil distribution;
ii. Soil profile, including ASTM classification of soils;
iii. Transects of soil stratigraphy;
iv. Hydraulic conductivity (saturated and unsaturated);
v. Relative permeability;
vi. Bulk density;
vii. Porosity;
viii. Soil sorption capacity;
ix. Cation exchange capacity (CEC);
x. Soil organic content;
xi. Soil pH;
xii. Particle size distribution;
xiii. Depth of water table;
xiv. Moisture content;
xv. Effect of stratification on unsaturated flow;
xvi. Infiltration;
xvii. Evapotranspiration;
xviii. Storage capacity;
xix. Vertical flow rate; and
xx) Mineral content.

3. Surface Water and Sediment

The Permittee shall provide a description of the surface water bodies in the vicinity of the facility. This summary 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 Permittee 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.);
iv. Buildings.

C. Source Characterization

For those sources from which releases of hazardous constituents have been detected, the Permittee shall provide 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). Data gaps on source characterization shall be identified and provisions made in Section E to obtain the relevant information to fill the data gap. This summary 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, and biotransformation;
iii. Photodegradation rates;
iv. Hydrolysis rates; and
v. Chemical transformations.

D. Potential Receptors

The Permittee shall provide data describing the human populations and environmental systems that are susceptible to contaminant exposure from the facility. Data gaps pertinent to receptor analysis shall be identified and provisions made in Section E to obtain the relevant information to fill the data gap. The following characteristics shall be identified at a minimum:

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);
   b. Location of groundwater users, to include withdrawal and discharge wells and springs, 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 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.

E. Sampling and Analysis Plan(s) for Characterization of Releases of Hazardous Waste/Hazardous Constituents

The Permittee shall prepare a plan to document all monitoring procedures necessary to characterize the extent, fate and transport of releases (i.e., identify sample locations, sample procedures and sample analysis to be 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 4 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 EPA. If a Risk Assessment is expected to be performed once release characterization is complete or nearly complete, Data Quality Objectives (DQO) for a Human Health Risk Assessment requires a Data Quality Objective of Level 3 or greater.

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., composite vs. grab) 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. Submission of appropriate blanks (e.g., field, equipment, trip, etc.);
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.
iii. Chain-of-custody seals for sample containers and shipping coolers.

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) or an alternate approved method. 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 dispersal for analysis.

b. Sample storage (e.g., maximum holding times for constituents);
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; and
vi) Practical Quantitative 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);
vi) "Blind" quality control 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 EPA, including:

i) Spikes and blanks at sampling events for which EPA or its technical representative provides oversight; and
ii) The equivalent of a CLP data package for samples split with EPA or for which EPA specifically requests the package.

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

F. Data Management Plan

The Permittee 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, data qualifiers).

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, isopleths plots, cross-sectional plots or transects, 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, both horizontally and vertically;
   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.

G. Project Management Plan - Schedule of Implementation

Permittee shall prepare a Project Management Plan which will cover qualifications of personnel categories and the management control structure for the project. The Permittee shall also provide a schedule for completing the planned RFI activities. The schedule shall be as specific as possible (i.e., it should indicate the number of days/weeks/months required for each major work plan task).

II. RFI REPORT REQUIREMENTS - ELEMENTS OF THE RFI REPORT

The RFI Report shall include, at a minimum, the following elements:

A. Introduction

The Permittee shall describe the purpose of the RFI Work Plan and provide a summary description of the project.

B. Environmental Setting

The Permittee shall describe the Environmental Setting in and around the facility. The RFI Work Plan should contain some, if not all, of the information on the Environmental Setting. Any information collected during work plan implementation which clarifies or improves understanding of the Environmental Setting should be provided in this section.

C. Source Characterization

The Permittee shall summarize the sources of contamination and nature of releases identified at the facility. The RCRA Facility Assessment and the RFI Work Plan should contain some, if not all, of the information on Source Characterization. Any information collected during work plan implementation or obtained from the sources (e.g., voluntarily or from other Environmental Programs) which directly addresses Source Characterization should be provided in this section.

D. Sampling and Analysis Results

The Permittee shall present data results obtained pursuant to the RFI Work Plan. The Permittee shall identify any work plan proposals which were not completed and explain why such actions were not finished. The Permittee shall also present its analysis/interpretation of how the sampling data meet the RFI objective and how the sampling data fits or modifies the contaminant conceptual model. For all analytical data, the Permittee shall discuss the results of data quality/data review.

E. Data Quality Assurance/Data Quality Data Review

The Permittee shall perform a Quality Assurance/Quality Control data review on all data present in the RFI. The Quality Assurance/Quality Control data review shall be in accordance with the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (EPA-540/R94-013) and the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (EPA-540/R94-012). The data review shall address the following, at minimum:

a. Holding times;
b. Blanks;
c. Laboratory Control Samples;
d. Field Duplicates;
e. Surrogate Recoveries;
f. Matrix Spike/Matrix Spike Duplicates
g. Data Assessment - Data Usability.

F. Conclusions

The Permittee shall summarize the major conclusions reached after analysis of the environmental setting, source characterization, sampling and analysis results and data quality. Any data gaps needed to complete characterization of the scope and extent of the releases from SWMUs and/or AOCs or to refine further the contaminant conceptual model, shall be identified and recommendations made in the Recommendations Section of the report.

G. Recommendations

The Permittee shall provide its recommendations on what, if any, further action is needed to complete the characterization of release(s) from SWMUs and/or AOCs.

H. Work Plan for Additional Investigations

If further investigations are determined to be needed to complete the objective of the RFI, then the Permittee shall provide a work plan to complete characterization of the release(s).

APPENDIX C

CORRECTIVE MEASURE STUDY (CMS) OUTLINE

CORRECTIVE MEASURE STUDY (CMS) OUTLINE

The purpose of the CMS portion of the RCRA corrective action process is to identify and evaluate potential remedial alternatives for the releases of hazardous constituents that have been identified at the facility through the RFI or other investigations to need further evaluation. The scope and requirements of the CMS are balanced with the expeditious initiation of remedies and rapid restoration of contaminated media. The scope and requirements of the CMS should be focused to fit the complexity of the site-specific situation. It is anticipated that Permittee's with sites with complex environmental problems may need to evaluate a number of technologies and corrective measure alternatives. For other facilities, however, the evaluation of a single corrective measure alternative may be adequate. Therefore, a streamlined or focused approach to the CMS may be initiated. Information gathered during any stabilization or interim measures will be used to augment the CMS and in cases where corrective action goals are met, may be a substitute for the final CMS.

The requirements for a full, detailed CMS are listed below. The Agency has the flexibility not to require sections of the study, where site-specific situations indicate that all requirements are not necessary. Additionally, the Agency may require additional studies besides these discussed in order to support the CMS.

I. CORRECTIVE MEASURES STUDY (CMS)

The detail of a CMS may vary based upon the complexity of the site, on-going Interim Measures, etc. However, the CMS may include the following elements:

A. INTRODUCTION/PURPOSE

The Permittee shall describe the purpose of the CMS and provide a summary description of the project.

B. DESCRIPTION OF CURRENT SITUATION

The Permittee shall submit a summary and 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. This discussion should concentrate on those issues which could significantly affect the evaluation and selection of the corrective measures alternative(s). The Permittee 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 Permittee 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.

C. ESTABLISHMENT OF PROPOSED MEDIA SPECIFIC STANDARDS

The Permittee shall describe the proposed media cleanup standards and point of compliance. The standards must be background, promulgated federal and state standards or risk-derived standards. If media clean-up standards are not proposed, then the Agency will unilaterally propose setting media clean-up standards to either background, promulgated federal and state standards or the most conservative risk-derived standards.

D. IDENTIFICATION, SCREENING AND DEVELOPMENT OF CORRECTIVE MEASURES TECHNOLOGIES

1. Identification: List and briefly describe potentially applicable technologies for each affected media that may be used to achieve the corrective action objectives. Include a table that summarizes the available technologies.

   The Permittee should consider innovative treatment technologies, especially in situations where there are a limited number of applicable corrective measure technologies.

2. Screening: The Permittee 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:

   a. 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.

   b. 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).

c. 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.

3. Corrective Measure Development: The Permittee shall assemble the technologies that pass the screening step into specific alternatives that have the potential to meet the corrective action objectives for each media. Options for addressing less complex sites could be relatively straightforward and may only require evaluation of a single or limited number of alternatives. Each alternative may consist of an individual technology or a combination used in sequence (i.e., treatment train). Different alternatives may be considered for separate areas of the facility, as appropriate. List and briefly describe each corrective measure alternative.

E. EVALUATION OF A FINAL CORRECTIVE MEASURE ALTERNATIVE

For each remedy which warrants a more detailed evaluation (i.e., those that passed through the screening step), including those situations when only one remedy is being proposed, the Permittee shall provide detailed documentation of how the potential remedy will comply with each of the standards listed below. These standards reflect the major technical components of remedies including cleanup of releases, source control and management of wastes that are generated by remedial activities. The specific standards are as follows:

1. Protect human health and the environment.
2. Attain media cleanup standards set by EPA.
3. Control the source of releases so as to reduce or eliminate, to the extent practicable, further releases that may pose a threat to human health and the environment.
4. Comply with applicable standards for management of wastes.
5. Other factors.

In evaluating the selected alternative or alternatives, the Permittee shall prepare and submit information that documents that the specific remedy will meet the

standards listed above. The following guidance should be used in completing this evaluation.

1. Protect Human Health and the Environment

   Corrective action remedies must be protective of human health and the environment. Remedies may include those measures that are needed to be protective, but are not directly related to media cleanup, source control or management of wastes. An example would be a requirement to provide alternative drinking water supplies in order to prevent exposures to releases from an aquifer used for drinking water purposes. Therefore, the Permittee shall provide a discussion of any short term remedies necessary to meet this standard, as well as discuss how the corrective measures alternative(s) meet this standard.

2. Attain Media Cleanup Standards

   Remedies will be required to attain media cleanup standards. As part of the necessary information for satisfying this requirement, the Permittee shall address whether the potential remedy will achieve the remediation objectives. An estimate of the time frame necessary to achieve the goals shall be included. Contingent remedies may be proposed if there is doubt if the initial remedy will be successful (*e.g.*, contingent remedies to innovative technologies).

3. Control of Sources of Releases

   The Permittee shall address the issue of whether source control measures are necessary, and if so, the type of actions that would be appropriate. Any source control measure proposed should include a discussion on how well the method is anticipated to work given the particular situation at the facility and the known track record of the specific technology.

4. Comply With any Applicable Standards for Management of Wastes

   The Permittee shall include a discussion of how the specific waste management activities will be conducted in compliance with all applicable state and federal regulations (e.g., closure requirements, LDRs).

5. Other Factors

   There are five general factors that will be considered as appropriate by EPA in selecting/approving a remedy that meets the four standards listed above. These five decision factors include:

a. Long-term reliability and effectiveness;
b. Reduction in the toxicity, mobility or volume of wastes;
c. Short-term effectiveness;
d. Implement ability; and
e. Cost.

Examples of the type of information to include are provided below:

a. Long-term reliability and effectiveness: The Permittee may consider whether the technology, or combination of technologies, have been used effectively under analogous site conditions, whether failure of any one technology in the alternative would have any immediate impact on receptors, and whether the alternative would have the flexibility to deal with uncontrollable changes at the site. Operation and maintenance requirements include the frequency and complexity of necessary operation and maintenance. In addition, each corrective measure alternative should be evaluated in terms of the projected useful life of the overall alternative and of its component technologies. Useful life is defined as the length of time the level of effectiveness can be maintained.

b. Reduction in the toxicity, mobility or volume of wastes: As a general goal, remedies will be preferred that employ techniques that are capable of eliminating or substantially reducing the potential for the wastes in SWMUs and/or contaminated media at the facility to cause future environmental releases. Estimates of how the corrective measure alternative will reduce toxicity, mobility and or volume of the waste is required and may be accomplished through a comparison of initial site conditions to expected post-corrective measures conditions.

c. Short-term effectiveness: The Permittee shall evaluate each corrective measure alternative for short-term effectiveness. Possible factors to consider are fire, explosion, exposure to hazardous constituents and potential threats associated with the treatment, excavation, transportation and re-disposal or containment of the waste material.

d. Implementability: Information to consider when assessing implementability includes:

i. The administrative activities needed to implement the corrective measure alternative (e.g. permits, rights of way, etc.) and the length of time these activities will take;

ii. The constructability, time for implementation, and time for beneficial results;

iii The availability of adequate off-site treatment, storage capacity, disposal services, needed technical services and materials; and

iv. The availability of prospective technologies for each corrective measure alternative.

e. Cost: The Permittee 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. The capital costs shall include, but are not limited to, costs for: engineering, site preparation, construction, materials, labor, sampling/analysis, waste management/disposal, permitting, health and safety measures, etc. The operation and maintenance costs shall include labor, training, sampling and analysis, maintenance materials, utilities, waste disposal and/or treatment, etc. Costs shall be calculated as the net present value of the capital and operation and maintenance costs.

F. JUSTIFICATION AND RECOMMENDATION OF THE CORRECTIVE MEASURE OR MEASURES

The Permittee shall justify and recommend in the CMS a corrective measure alternative for consideration by the Agency. Such a recommendation should include a description and supporting rationale for the preferred alternative that is consistent with the corrective action standards and remedy selection decision factors discussed above. In addition, 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 Regional Administrator will select the corrective measure alternative or alternatives to be implemented based on the results presented in the CMS.

APPENDIX D

SCHEDULE OF COMPLIANCE

SCHEDULE OF COMPLIANCE

Schedule of Compliance	Due Date
Cost Estimate for Completion of Corrective Action *See Condition I.D.4.b.*	Within one hundred eighty (180) calendar days of the effective date of the permit
Annual Cost Estimate Review Report *See Conditions I.D.4.c. and II.H.6.*	Annually
Financial Assurance for Completion of Corrective Action *See Condition I.D.5.b.*	Within sixty (60) calendar days after approval of cost estimate in Condition I.D.4.b.
Notification of Newly Identified SWMUs and AOCs *Condition II.B.1. and* *See Condition II.B.2.*	Within fifteen (15) calendar days of discovery
SWMU Assessment Report *See Condition II.B.3.*	Within ninety (90) calendar days of notification
Notification for Newly Discovered Releases at Previously Identified SWMUs and AOCs *See Condition II.C.1.*	Within fifteen (15) calendar days of discovery
Confirmatory Sampling Work Plan for SWMUs or AOCs identified in Appendix A.3 * *See Condition II.D.1*	Within forty-five (45) calendar days after effective date of permit
Confirmatory Sampling Work Plan for SWMUs identified under Condition II.B.4. or AOCs identified under Condition II.B.1. * *See Condition II.D.2.*	Within forty-five (45) calendar days of notification by the Regional Administrator (RA)
Confirmatory Sampling Report *See Condition II.D.5.*	In accordance with the approved CS Work Plan
RFI Work Plan for SWMU(s) and AOC(s) identified under Condition II.A.1. * *See Condition II.E.1.a.*	Within ninety (90) calendar days from effective date of permit
RFI Work Plan for SWMU(s) and AOC(s) Identified under Condition II.B.4., Condition II.C.2., or Condition II.D.6. * *See Condition II.E.1.b.*	Within ninety (90) calendar days after receipt of notification by Regional Administrator (RA) which SWMUs or AOCs require an RFI
Draft RFI Report *See Condition II.E.3.a.*	In accordance with the approved RFI Work Plan
Final RFI Report *See Condition II.E.3.c.*	Within thirty (30) calendar days after receipt of RA's final comments on Draft RFI Report
RFI Progress Reports *See Condition II.E.3.d.*	Quarterly, beginning ninety (90) calendar days from the start date specified by the RA **

Schedule of Compliance	Due Date
Interim Measures Work Plan for Units identified in II.F.1. * *See Condition II.F.*	Within 30 days from the effective date of the permit
Interim Measures Work Plan * *See Condition II.F.1.a.*	Within thirty (30) calendar days of notification by RA
Interim Measures Progress Reports *See Condition II.F.3.a.*	In accordance with the approved Interim Measures Work Plan *** or semi-annually for Permittee initiated IM
Interim Measures Report *See Condition II.F.3.b.*	Within ninety (90) calendar days of completion
CMS *See Condition II.G.3.*	Date as specified in the Permit
Final CMS *See Condition II.G.4.*	As specified in writing by the RA
Cost Estimates and Demonstration of Financial Assurance for Final Remedy *See Condition II.H.6.*	Within one hundred twenty (120) calendar days after permit modification for remedy
Annual Remedy Implementation and Effectiveness Report *See Condition II.H.5.*	Annually
Noncompliance/Imminent Hazard Report *See Condition I.D.16.*	Oral within 24 hours and written within fifteen (15) calendar days of becoming aware of the hazardous circumstances

The above reports must be signed and certified in accordance with 40 CFR §270.11.

* Per Condition II.N.1., any changes made to a Work Plan covered by this permit shall become an enforceable part of this permit.

** This applies to Work Plan execution that requires more than one hundred eighty (180) calendar days

*** This applies to Work Plan execution that requires more than one year.

(b) (6)
Grenada, MS 38901
July 2, 2010

USEPA Region 4
61 Forsyth Street S. W.
Atlanta, GA 30303

Dear Ms. Meredith Anderson:

I, (b) (6) am writing this letter in response to a letter from the United States Environmental Protection Agency concerning the plant, Grenada Manufacturing, now called Grenada Stamping and Assembly, Inc.

According to the letter that was sent to me, I understand that the Grenada Manufacturing LLC facility at one time was a hazard to our health, but it has been corrected.

I feel that if it was a hazard to our health then, it probably still is a hazard site.

I believe that if EPA issue a renewal of the current Hazardous and Solid Waste Amendments (HSWA) Permit for the Grenada facility it will be a hazard to our health to let the facility operate ten more years, especially if it does not include any

changes to the existing site cleanup. This is my concern. I hope this letter will receive your immediately attention. Thank you,

Sincerely yours,

(b) (6)

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

JUL 2 6 2010

(b) (6)
Grenada, MS 38901

SUBJECT: Grenada Manufacturing, Inc.
Grenada, MS
MSD 007 037 278

Dear (b) (6)

It was a pleasure speaking with you this morning. I hope that our conversation clarified the issues you raised in your letter of July 2, 2010 regarding the permit renewal for the Grenada Manufacturing, LLC facility. I appreciate your interest in the permitting process and want to be as responsive as possible to your concerns. Below is a summary of our conversation.

As we discussed, there are no known hazards to human health or the environment from the Grenada site. The contaminants of concern are located within the property boundary in sub-surface soils and the upper portions of the groundwater table and are inaccessible to exposure. Groundwater flows toward Riverdale Creek and is intercepted by an underground treatment barrier, thus preventing discharge of contaminants to the creek. Additionally, this groundwater table is not used as a drinking water source. Other cleanup measures are also in place to address subsurface soil contamination.

The permit that is being renewed by the U.S. Environmental Protection Agency (EPA) at this time is for the purposes of directing the cleanup of areas of contamination from past disposal practices. These cleanup activities have been underway for several years and have been shown to be effective (therefore, at this time no changes are proposed to the cleanup measures approved in 2005). Renewal of the permit will allow for the continued implementation of these cleanup measures for the next 10 years.

The Mississippi Department of Environmental Quality (MDEQ) has the authority to regulate wastes generated by ongoing manufacturing operations at the Grenada facility. Grenada is therefore operating under a separate permit issued by MDEQ that specifies the requirements for current waste generation and disposal, if any, in a manner that is protective of human health and the environment. A representative of MDEQ can be contacted at 601-961-5067 to answer any of your questions related to current operations and waste generation at the facility.

Lastly, the permit will be issued by the EPA as proposed in the Public Notice and will become effective on August 30, 2010. If you wish to file an appeal to this decision, you may do so prior to the effective date and according to the instructions attached.

Thank you again for your participation and interest in the Grenada site cleanup activities. I am hopeful that our phone conversation and this response to your letter address your concerns about the facility and the proposed permit renewal. Please feel free to contact me at 404-562-8608, or at anderson.meredith@epa.gov, if I can be of further assistance to you.

Sincerely,

Meredith C. Anderson
Project Manager
RUST Branch/Corrective Action Section
RCRA Division

Enclosure