STATE OF MISSISSIPPI
HAZARDOUS WASTE MANAGEMENT PERMIT

THIS CERTIFIES THAT

First Chemical, LLC dba Oleo-X
1001 Industrial Road
Pascagoula, MS
and
Chemours FC
Wilmington, DE

MSD 033 417 031

are hereby authorized to conduct corrective action and post-closure care activities and to operate hazardous waste storage tanks and a hazardous waste incinerator at the **First Chemical Corporation dba Oleo-X Site** located at **1001 Industrial Road, Pascagoula, (Jackson County) MS**.

This permit is issued under the authority of the Mississippi Solid Wastes Disposal Law, and particularly Section 17-17-27 thereof, and rules adopted and promulgated thereunder, all of which authorize the Department of Environmental Quality to enforce all applicable requirements, under the Mississippi Hazardous Waste Management Regulations, and associated conditions included therein.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD

Trent Jones

AUTHORIZED SIGNATURE
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Permit Issued: June 6, 2023

Expires: May 31, 2033 **Permit No.: HW 033 417 031**

1477 PER20130003

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MODULE I - GENERAL PERMIT CONDITIONS

I.A. EFFECT OF PERMIT

The Permittee is allowed to treat, store, and dispose of hazardous waste in accordance with the conditions of this permit. Any treatment, storage, or disposal of hazardous waste not authorized in this permit is prohibited. Subject to Mississippi Commission on Environmental Quality Hazardous Waste Management Regulations Rule 1.16 Part 270.4, compliance with this permit constitutes compliance, for purposes of enforcement, with Subtitle C of the Resource Conservation and Recovery Act (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, and invasion of other private rights, or any infringement of state or local law or regulations or preclude compliance with any other Federal, State, and/or local laws. Compliance with the terms of this permit does not constitute a defense to any order issued or any action brought under Section 3008(a), Section 3008 (h), Section 3013, of Section 7003 of RCRA; Sections 106(a), 104 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. [MHWMR Rule 1.16 Parts 270.4 and 270.30(g)]

I.B. REGULATIONS

All references to the Mississippi Hazardous Waste Management Regulations (MHWMR) contained herein are considered to be those regulations adopted by the Commission on Environmental Quality and in effect on the effective date of the permit.

I.C. PERMIT ACTIONS

I.C.1. Permit Modification, Revocation and Reissuance, and Termination

This permit may be modified, revoked and reissued, or terminated for cause as specified in MHWMR Rule 1.16 Parts 270.41, 270.42, 270.43, and 270.50(d). The filing of a request for a permit modification, revocation and reissuance, 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 conditions. [MHWMR Rule 1.16 Parts 270.4(a) and 270.30(f)]

This permit may be reopened without cause five (5) years after the effective date for the purpose of modifying, revoking and reissuing, terminating this permit, or otherwise re-evaluating any of the conditions herein, or which may be required pursuant to the regulations in effect at that time. [MHWMR Rule 1.16 Parts 270.50(d)]

I.C.2. Permit Renewal

This permit may be renewed as specified in MHWMR Rule 1.16 Part 270.30(b) and Permit Condition I.E.2. Review of any application for a permit renewal shall consider improvements in the state of control and measurement technology, as well as changes in applicable regulations. [MHWMR Rule 1.16 Part 270.30(b)]

I.D. SEVERABILITY

The provisions of this permit are severable, and if any provisions of this permit, or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby. [MWHMR Rule 1.24 Part 124.16(a)]

I.E. DEFINITIONS

I.E.1. For purposes of this permit, terms used herein shall have the same meaning as those in MHWMR, unless this permit specifically provides otherwise; where terms are not defined in the regulations or the permit, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning to the term. "Executive Director" means the Executive Director of the Mississippi Department of Environmental Quality (MDEQ), or his designated or authorized representative.

I.E.2. The term "Permittee" is defined as any entity included in any portion of the Site Identification Form and Part A application (Form 8700-12/23) submitted on August 29, 2022 and November 16, 2022, and who meets the definition of site owner, operator, and is required to fulfill the regulatory requirements of this hazardous waste management permit.

For the purposes of this permit, the term Permittee is considered First Chemical, LLC dba Oleo-X and Chemours FC. In all conditions where permittee is singular, the condition applies to both permitted parties.

I.F. DUTIES AND REQUIREMENTS

I.F.1. Duty to Comply

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 Mississippi Solid Waste Disposal Law, Sections 17-17-1, et seq., Mississippi Code Annotated and is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. [MHWMR Rule 1.16 Part 270.30(a)]

I.F.2. Duty to Reapply

If the Permittee wishes to continue an activity allowed by this permit after the expiration date of this permit, the Permittee shall submit a complete application for a new permit at least 180 days prior to permit expiration. [MHWMR Rule 1.16 Parts 270.10(h), 270.30(b)]

I.F.3. Permit Expiration

Pursuant to MHWMR Rule 1.16 Part 270.50, this permit shall be effective for a fixed term not to exceed ten (10) years. This permit and all conditions herein will remain in effect beyond the permit's expiration date, if the Permittee has submitted a timely, complete application (see MHWMR Rule 1.16 Part 270.10,

270.13 through 270.29) and, through no fault of the Permittee, the Executive Director has not issued a new permit, as set forth in MHWMR Rule 1.16 Part 270.51. [MHWMR Rule 1.16 Parts 270.50(a), and 270.51(d)]

I.F.4. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [MHWMR Rule 1.16 Part 270.30(c)]

I.F.5. Duty to Mitigate

In the event of noncompliance with the permit, the Permittee shall take all reasonable steps to minimize releases to the environment and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment. [MHWMR Rule 1.16 Part 270.30(d)]

I.F.6. Proper Operation and Maintenance

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 staffing and training, and adequate laboratory and process controls, including appropriate quality assurance/quality control procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit. [MHWMR Rule 1.16 Part 270.30(e)]

I.F.7. Duty to Provide Information

The Permittee shall furnish to the Executive Director, within a reasonable time, any relevant information which the Executive Director 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 the Executive Director, upon request, copies of records required to be kept by this permit. [MHWMR Rule 1.7 Part 264.74(a), Rule 1.16 Part 270.30(h)]

I.F.8. Inspection and Entry

Pursuant to MHWMR Rule 1.16 Part 270.30(i), the Permittee shall allow the Executive Director, or an authorized representative, upon the presentation of credentials and other documents, as may be required by law, to:

I.F.8.a. Enter at reasonable times upon the Permittee's premises where a regulated activity is located or conducted, or where records must be kept under the conditions of this permit;

I.F.8.b.. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

I.F.8.c. Inspect at reasonable times any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

I.F.8.d. Sample or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by RCRA, any substances or parameters at any location.

I.F.9. Monitoring and Records

The Executive Director may require such testing by the Permittee and may make such modifications to this permit deemed necessary to ensure implementation of new regulations or requirements, or to ensure protection of human health and the environment.

I.F.9.a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the wastes to be analyzed must be the appropriate method from Appendix I of MHWMR Rule 1.2 Part 261, the EPA Region 4 Field Branches Quality System and Technical Procedures (SOP) (most recent version), or an equivalent method approved by the Executive Director. Laboratory methods must be those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods SW-846, Standard Methods for the Examination of Water and Wastewater, or an equivalent method approved by the Executive Director and specified herein. [MHWMR Rule 1.16 Part 270.30(j)(1)]

Waste Analysis Plan (See Permit Attachment II.1)
The Quality Assurance Project Plan

I.F.9.b. The Permittee shall retain records of all monitoring information, 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 MHWMR Rule 1.7 Part 264.73(b)(9), and records of all data used to complete the application for this permit for a period of at least 3 years from the date of the sample, measurement, report, record, certification, or application. This period may be extended by the Executive Director at any time and is automatically extended during the course of any unresolved enforcement action regarding this facility. [MHWMR Rule 1.7 Part 264.74(b) and Rule 1.16 Part 270.30(j)(2)]

I.F.9.c. Records of monitoring information shall specify:

i. The date(s), exact place, and time(s) of sampling or measurements;
ii. The individual(s) who performed the sampling or measurements;
iii. The date(s) the analyses were performed;
iv. The individual(s) who performed the analyses;

v. The analytical techniques or methods used, including any method detection limits for said technique; and
vi. The results of such analyses.
[MHWMR Rule 1.16 Part 270.30(j)(3)]

I.F.10. Reporting Planned Changes

The Permittee shall give notice to the Executive Director as soon as possible of any planned physical alterations or additions to the permitted facility. [MHWMR Rule 1.16 Part 270.30(l)(1)]

I.F.11. Anticipated Noncompliance

The Permittee shall give advance notice to the Executive Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. [MHWMR Rule 1.16 Part 270.30(l)(2)]

I.F.12. Transfer of Permits

This permit is not transferable to any person, except after notice to the Executive Director. The Executive Director may require modification or revocation and reissuance of the permit pursuant to MHWMR Rule 1.16 Part 270.40. Before transferring ownership or operation of the facility, the Permittee shall notify the new owner or operator in writing of the requirements of MHWMR Rule 1.7 Part 264 and Rule 1.16 Part 270 and of this permit. [MHWMR Rule 1.16 Part 270.30(l)(3), Rule 1.7 Part 264.12(c)]

I.F.13. Twenty-Four Hour Reporting

I.F.13.a. The Permittee shall report to the Executive Director any noncompliance with the permit which may endanger health or the environment. Any such information shall be reported orally within twenty-four (24) hours from the time the Permittee becomes aware of the circumstances. This report shall include the following:

i. Information concerning release of any hazardous waste that may cause an endangerment to public drinking water supplies.
ii. Any information of a release or discharge of hazardous waste or of a fire or explosion from the hazardous waste management facility which could threaten the environment or human health outside the facility.

I.F.13.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 hazards to the environment and human health outside the facility, where this is applicable; and

vii. Estimated quantity and disposition of recovered material that resulted from the incident.

I.F.13.c. A written submission shall also be provided within five (5) days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period(s) of noncompliance (including exact dates and times); whether the noncompliance has been corrected, and if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Executive Director may waive the five-day written notice requirement in favor of a written report within 15 days. [MHWMR Rule 1.16 Part 270.30(l)(6)]

I.F.14. Other Noncompliance

The Permittee shall report all other instances of noncompliance not otherwise required to be reported above at the time monitoring reports are submitted. The reports shall contain the information listed in conditions I.F.10 through I.F.13. of this Permit. [MHWMR Rule 1.16 Part 270.30(l)(10)]

I.F.15. Other Information

Whenever the Permittee becomes aware that it failed to submit relevant facts in the permit application or submitted incorrect information in a permit application or any report to the Executive Director, the Permittee shall promptly submit such facts or information. [MHWMR Rule 1.16 Part 270.30(l)(11)]

I.G. SIGNATORY REQUIREMENT

All applications, reports, or information submitted to or requested by the Executive Director shall be signed and certified in accordance with MHWMR Rule 1.16 Part 270.11. [MHWMR Rule 1.16 Part 270.30(k)]

I.H. REPORTS, NOTIFICATIONS, AND SUBMISSIONS TO THE EXECUTIVE DIRECTOR

All reports, notifications, or other submissions which are required by this permit to be sent to or given to the Executive Director should be sent by certified mail or given to:

Mississippi Department of Environmental Quality
Office of Pollution Control
P.O. Box 2261
Jackson, MS 39225

I.I. CONFIDENTIAL INFORMATION

In accordance with MHWMR Rule 1.16 Part 270.12, the Permittee may claim confidential any information required to be submitted by this permit.

I.J. DOCUMENTS TO BE SUBMITTED PRIOR TO OPERATION

The Permittee shall submit a monitoring equipment calibration plan that outlines the calibration procedure for all monitoring equipment and specifies a calibration schedule for all monitoring equipment based on the regulation or the manufacturer's recommendation.

I.K. DOCUMENTS TO BE MAINTAINED AT THE FACILITY

The Permittee shall maintain at the facility, until closure is complete and certified by an independent, registered professional engineer, the following documents and all amendments, revisions and modifications to these documents:

I.K.1. Waste Analysis plan, as required by MHWMR Rule 1.7 Part 264.13 and this Permit.

I.K.2. Inspection schedules, as required by MHWMR Rule 1.7 Part 264.15(b)(2) and this Permit.

I.K.3. Personnel training documents and records as required by MHWMR Rule 1.7 Part 264.16(d) and this Permit.

I.K.4. Contingency Plan, as required by MHWMR Rule 1.7 Part 264.53(a) and this Permit.

I.K.5. Operating record, as required by MHWMR Rule 1.7 Part 264.73 and this Permit.

I.K.6. Closure Plan, as required by MHWMR Rule 1.7 Part 264.112(a) and this Permit.

I.K.7. Post-Closure Plan, as required by MHWMR Rule 1.7 Part 264.118(a) and this Permit.

I.K.8. Annually adjusted cost estimate for facility closure, post-closure and corrective action as required by MHWMR Rule 1.7 Part 264.142(d), 264.144(d), and this Permit.

I.K.9. A valid financial assurance mechanism for closure required by MHWMR Rule 1.7 Part 264.143 and this Permit.

I.K.10. A valid financial assurance mechanism for liability coverage of sudden occurrences, in the amounts of at least one million dollars per occurrence, tow million dollars annual aggregate, as required by MHWMR Rule 1.7 Part 264.147 and this Permit.

I.K.11. All other documents required by Permit Condition I.F.9.

MODULE II - GENERAL FACILITY CONDITIONS

II.A. DESIGN AND OPERATION OF FACILITY

II.A.1. The Permittee shall construct, maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned, sudden or non-sudden release of hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment, as required by MHWMR Rule 1.7 Part 264.31.

II.A.2. Hazardous waste shall only be stored in tanks so designated in the permit application, except as otherwise allowed by the MHWMR.

II.A.3. Hazardous waste shall not be placed in any tank except where it is authorized under this permit or under MHWMR 264.1(g).

II.B. GENERAL WASTE ANALYSIS

II.B.1. The Permittee shall follow the waste analysis procedures required by MHWMR Rule 1.7 Part 264.13, as described in the attached Waste Analysis Plan, Permit Attachment II.1 or for constituents with feed rate limits under the Hazardous Waste Combustor MACT the Feedstream Analysis Plan as required by 40 CFR 63.1209(c)(2). The Permittee shall review the process or operation generating each hazardous waste stream annually as part of its quality assurance program, and resample, as necessary, in accordance with Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, EPA Publication SW-846, or equivalent methods approved by the Executive Director. At a minimum, the Permittee shall maintain proper functional instruments for any permit related hazardous waste analysis performed on-site, use approved sampling and analytical methods, verify the validity of sampling and analytical procedures, and perform correct calculations. If the Permittee uses a contract laboratory to perform analyses, then the Permittee shall inform the laboratory in writing that it must operate under the waste analysis conditions set forth in this Permit.

II.B.2. Prior to incinerating on-site generated waste from a new process or a process for which the waste has not previously been incinerated on-site, the Permittee shall identify all MHWMR Rule 1.2 Part 261 Appendix VIII hazardous constituents contained in the waste. At a minimum the waste must be analyzed using SW-846 (most recent methods) methods 8260B and 8270C. The identification of the hazardous constituents not identified by these analytical methods can be made using process knowledge, the appropriate SW-846 analytical method or an alternate method approved by the Executive Director.

The list of hazardous constituents identified along with the appropriate analytical results shall be submitted to the Executive Director prior to incinerating the waste. This single identification of the hazardous constituents shall be deemed satisfactory unless it becomes apparent to the Executive Director and/or the Permittee that the nature of the waste has changed. Each submittal to the Executive Director shall contain the following certification signed in accordance with MHWMR Rule 1.16 Part 270.11(b):

First Chemical Corporation has generated on-site [insert waste description] from [insert process description]. Based on the attached analytical results and a

thorough knowledge of the process, the following list of constituents comprises the total list of Mississippi Hazardous Waste management Regulation Rule 1.2 Part 261 Appendix VIII constituents that are contained in the above mentioned waste.

Appendix VIII Hazardous Constituent	Identification Method
[insert list of constituents]	[insert basis, i.e., analytical or process knowledge]

_____ _____

Signature and Title Date

II.C. SECURITY

The Permittee shall comply with the security provisions of MHWMR Rule 1.7 Part 264.14(b) (2) and 264.14(c) as described in Attachment II.2 of this permit.

II.D. GENERAL INSPECTION REQUIREMENTS

The Permittee shall comply with the inspection requirements of MHWMR Rule 1.7 Part 264.15 as described in the Inspection Schedule found in Attachment II.3. The Permittee shall remedy any deterioration or malfunction discovered by an inspection as required by MHWMR Rule 1.7 Part 264.15(c). Records of inspections shall be kept as required by MHWMR Rule 1.7 Part 264.15(d).

II.E. PERSONNEL TRAINING

The Permittee shall conduct personnel training, as required by MHWMR Rule 1.7 Part 264.16. This training program shall follow the attached outline, Permit Attachment II.4. The Permittee shall maintain training documents and records as required by Rule 1.7 Part 264.16(d) and (e).

II.F. SPECIAL PROVISIONS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE

The Permittee shall comply with the requirements of MHWMR Rule 1.7 Part 264.17(a). The Permittee shall follow the procedures for handling ignitable, reactive, and incompatible wastes set forth in Permit Attachment II.7.

II.G. LOCATION STANDARDS

The Permittee shall operate, operate and maintain the facility to prevent washout of any hazardous waste by a 100-year flood as required by MHWMR Rule 1.7 Part 264.18(b)(1) and as specified in the attached plans and specifications, Permit Attachment II.5.

II.H. PREPAREDNESS AND PREVENTION

II.H.1. Required Equipment

At a minimum, the Permittee shall maintain at the facility the equipment set forth in the Contingency Plan, Permit Attachment II.6. as required by MHWMR Rule 1.7 Part 264.32.

II.H.2. Testing and Maintenance of Equipment

The Permittee shall test and maintain the equipment specified in Permit Condition II.H.1. as necessary, to assure its proper operation in time of emergency, as required by MHWMR Rule 1.7 Part 264.33.

II.H.3. Access to Communications or Alarm System

The Permittee shall maintain access to the communications or alarm system, as required by MHWMR Rule 1.7 Part 264.34.

II.H.4. Required Aisle Space

At a minimum, the Permittee shall maintain aisle space, as required by MHWMR Rule 1.7 Part 264.35 and the attached plans and specifications, Permit Attachment II.7.

II.H.5. Arrangements with Local Authorities

The Permittee shall maintain arrangements with state and local authorities, as required by MHWMR Rule 1.7 Part 364.37. If state or local officials refuse to enter into preparedness and prevention arrangements with the Permittee, the Permittee must document this refusal in the operating record and notify the Executive Director within thirty (30) days. Authorities shall be notified of any changes that would affect the agreements. The Permittee is not required to enter into arrangements with Pascagoula Fire Department.

II.I. CONTINGENCY PLAN

II.I.1. Implementation of Plan

The permittee shall immediately carry out the provisions of the Contingency Plan, Permit Attachment II.6, whenever there is a fire, explosion, or release of hazardous waste or constituents that could threaten human health or the environment.

II.I.2. Copies of Plan

The Permittee shall maintain a copy of the Contingency Plan at the facility and shall provide a copy to all police departments, fire departments, hospitals, and State and local emergency response teams that may be asked to provide emergency assistance, as required by MHWMR Rule 1.7, 264.53.

II.I.3. Amendments to Plan

The Permittee shall review and immediately amend if necessary, the Contingency Plan, as required by MHWMR Rule 1.7 Part 264.54.

II.I.4. Emergency Coordinator

A trained emergency coordinator shall be available at all times in case of an emergency, as required by MHWMR Rule 1.7 Part 264.55.

The names, addresses, and phone numbers of all persons qualified to act as emergency coordinators shall be supplied to the Executive Director at the time of certification. [MHWMR Rule 1.7 Part 264.52(d)]

II.J MANIFEST SYSTEM

The permittee shall comply with the manifest requirements of MHWMR Rule 1.7 Part 264.71, 264.72, and 264.76.

II.K. RECORDKEEPING AND REPORTING

In addition to the record keeping and reporting requirements specified elsewhere in this Permit, the Permittee shall do the following:

II.K.1. Operating Record

The permittee shall maintain a written operating record at the facility, in accordance with the MHWMR Rule 1.7 Part 264.73.

II.K.2. Annual Report

The Permittee shall comply with the annual reporting requirements of MHWMR Rule 1.8.

II.L. GENERAL CLOSURE REQUIREMENTS

II.L.1. Performance Standard

The Permittee shall close the facility, as required by MHWMR Rule 1.7 264.111 and in accordance with the Closure Plan, Permit Attachment II.8.

II.L.2. Amendment to Closure Plan

The Permittee shall amend the Closure Plan, in accordance with MHWMR Rule 1.7 Part 264.112(c), whenever necessary.

II.L.3. Notification of Closure

The Permittee shall notify the Executive Director in writing at least sixty (60) days prior to the date on which he expects to begin closure of any surface impoundment or the facility, as required by MHWMR Rule 1.7 Part 112(d).

The Permittee shall notify the Executive Director in writing at least forty-five (45) days prior to the date on which he expects to begin final closure of any permitted storage tanks or incineration units, as required by MHWMR Rule1.7 Part 112(d).

II.L.4. Time Allowed for Closure

After receiving the final volume of hazardous waste, the Permittee shall treat, remove from the unit or facility, or dispose of onsite all hazardous waste and shall complete closure activities, in accordance with MHWMR Rule 1.7 Part 264.113 and the schedules specified in the Closure Plan, Permit Attachment II.8.

II.L.5. Disposal or Decontamination of Equipment, Structures, and Soils

The Permittee shall decontaminate and/or dispose of all contaminated equipment, structures, and soils, as required by MHWMR Rule 1.7 Part 264.114 and the Closure Plan, Permit Attachment II.8.

II.L.6. Certification of Closure

II.L.6.a. The Permittee shall certify that the unit or facility has been closed in

accordance with the specifications in the Closure Plan, as required by MHWMR Rule 1.7 Part 264.115.

II.L.6.b. Upon receipt of the certification of closure required in Permit Condition II.L.6.a) and approval of the Pollution Control Permit Board, all applicable sections of this permit shall be void. Upon receipt of certification of closure for all facilities covered by this permit and the approval of the Permit Board, this permit shall be terminated.

II.L.7. Survey Plat

The Permittee shall submit a survey plat no later than the submission of certification of closure of each hazardous waste disposal unit, in accordance with MHWMR Rule 1.7 Part 264.116.

II.M. GENERAL POST-CLOSURE REQUIREMENTS

II.M.1. Post-Closure Care Period

The Permittee shall conduct post-closure care for the surface impoundment for 30 years following the date of completion of closure, except as otherwise provided in Module III. Post-closure care of the units shall be in accordance with MHWMR Rule 1.7 Part 264.117 and the Post-Closure Plan (Attachment B) required by MHWMR Rule 1.7 Part 264.118.

II.M.2. Post-Closure Security

The Permittee shall maintain security at the facility during the post-closure care period, in accordance with the Post-Closure Plan, Permit Attachment II.8., and MHWMR Rule 1.7 Part 264.117(b),

II.M.3. Amendment to Post-Closure Plan

The Permittee shall request a permit modification and amend the Post-Closure Plan, whenever necessary, in accordance with MHWMR Rule 1.7 Part 264.118(d).

II.M.4. Post-Closure Notices

II.M.4.a. No later than 60 days after certification of closure of each hazardous waste disposal unit, the Permittee shall submit records of the type, location, and quantity of hazardous waste disposed within each cell or disposal unit, in accordance with MHWMR Rule 1.7 Part 264.119(a).

II.M.4.b. Within 60 days of certification of closure of the first hazardous waste disposal unit and within 60 days of certification of closure of the last hazardous waste disposal unit, the Permittee performed the following:

i. Recorded a notation on the deed to the facility property, in accordance with MHWMR Rule 1.7 Part 264.119(b)(1).

ii. Submit a certification that the notation required by MHWMR Rule 1.7 Part 264.119(b)(1) has been recorded, in accordance with MHWMR Rule 1.7 Part 264.119(b)(2).

II.M.4.c. The Permittee shall request and obtain a permit modification prior to the post-closure removal of hazardous wastes, hazardous waste residues, liners, or contaminated soils in accordance with MHWMR Rule 1.7 Part 264.119(c).

II.M.5. Certification of Completion of Post-Closure Care

The Permittee shall certify that post-closure care was performed in accordance with the specifications in the Post-Closure Plan, as required by MHWMR Rule 1.7 Part 264.120.

II.N. COST ESTIMATE FOR FACILITY CLOSURE, POST-CLOSURE, AND CORRECTIVE ACTION

II.N.1. The Permittee's most recent closure, post-closure and corrective action cost estimate, prepared in accordance with MHWMR Rule 1.7 Parts 264.142, 264.144, 264.197(c)(3) and (5), 264.228(c)(2), and 264.258(c)(2), is specified in Permit Attachment II.8.

II.N.2. The Permittee must adjust the closure, post-closure and corrective action cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with MHWMR Rule 1.7 Parts 264.143 and 264.145 and Permit Condition II.O. or when using an approved state-required mechanism, upon such date as required by the state. [MHWMR Rule 1.7 Part 264.142(b)]

The Permittee must adjust the closure, post-closure and corrective action cost estimate for inflation within 30 days after the close of the firm's fiscal year and before submission of updated information to the Executive Director, as specified in MHWMR Rule 1.7 Parts 264.142(b) and 264.144(b).

II.N.3. The Permittee must revise the closure cost estimate and post-closure cost estimate whenever there is a change in the facility's Closure Plan and Post-Closure Plan, as required by MHWMR Rule 1.7 Parts 264.142(c) and 264.144(c).

II.N.4. The Permittee must keep at the facility the latest closure, post-closure and corrective action cost estimate as required by MHWMR Rule 1.7 Parts 264.142(d) and 264.144(d).

II.O. FINANCIAL ASSURANCE FOR FACILITY CLOSURE, POST-CLOSURE AND CORRECTIVE ACTION

The Permittee shall demonstrate continuous compliance with MHWMR Rule 1.7 Parts 264.143 and 264.145 or 264.146 by providing documentation of financial assurance, as required by MHWMR Rule 1.7 Parts 264.151 or 264.149, in at least the amount of the cost estimates required by Permit Condition II.N. The Director pursuant to MHWMR Rule 1.7 Parts 264.143 and 264.145 must approve changes in financial assurance mechanisms.

II.P. LIABILITY REQUIREMENTS

The Permittee shall demonstrate continuous compliance with the requirement of MHWMR Rule 1.7 Part 264.147(a) to have and maintain liability coverage for sudden and

accidental occurrences in the amount of at least $1 million per occurrence, with an annual aggregate of at least $2 million, exclusive of legal defense costs.

The Permittee also shall demonstrate continuous compliance with the MHWMR Rule 1.7 Part 264.147(b) requirement to have and maintain liability coverage for non-sudden accidental occurrences in the amount of at least $3 million per occurrence, with an annual aggregate of at least $6 million, exclusive of legal defense costs.

II.Q. INCAPACITY OF OWNERS OR OPERATORS, GUARANTORS, OR FINANCIAL INSTITUTIONS

The Permittee shall comply with MHWMR Rule 1.7 Part 264.148 whenever necessary.

MODULE III. TANKS

III.A. MODULE HIGHLIGHTS

This module addresses the permitted storage of on-site hazardous waste generated at the First Chemical, Pascagoula, Mississippi facility. This module does not preclude the storage of hazardous waste under MHWMR Rule 1.3 Part 262.

III.B. PERMITTED AND PROHIBITED WASTE IDENTIFICATION

III.B.1. The Permittee may store a total volume of 51,980 gallons of hazardous waste in five (5) tanks, subject to the terms of this permit and as follows:

Tank No.	Capacity (gallons)	Dimensions of Tank	Secondary Containment Required	Description of Hazardous Waste	Hazardous waste No.
TK-1057	9,400	10 ft (dia.) x 16 ft (hgt.)	yes-in place	Combined wastewater streams generated from nitrobenzene/ aniline production	K104, F-005
TK-1058	9,400	10 ft (dia.) x 16 ft (hgt.)	yes-in place	Distillation bottoms from aniline production	K083
TK-1059	5,800	8 ft (dia.) x 11 ft (hgt.)	yes-in place	Distillation bottoms from aniline production	K083
TK-1060	13,250	11 ft (dia.) x 19 ft (hgt.)	yes-in place	Distillation bottoms from aniline production	K083, F005
TK-1402	14,130	10 ft (dia.) x 24 ft (hgt.)	yes-in place	Characteristic waste from site production and effluent treatment operations	D001, D018, D036, F005

III.B.2. The storing or treating of hazardous waste in tanks that are not identified in Permit Condition III.B.1. shall be in accordance with MHWMR Rule 1.3 Part 262.34.

III.C. SECONDARY CONTAINMENT AND INTEGRITY ASSESSMENTS

III.C.1. For tank systems used to store or treat materials that are defined as hazardous waste in the future, the Permittee must obtain a written assessment of the existing tank system integrity within twelve (12) months from the date the

waste is defined as hazardous. [MHWMR Rule 1.7 Part 264.191(c)]

An independent, qualified, registered professional engineer shall certify the assessment. [MHWMR Rule 1.7 Part 264.191(a) and (b)]

III.C.2. The Permittee shall design, construct, and operate the secondary containment system, in accordance with the detailed design plans and descriptions contained in Permit Attachment III.1. [MHWMR Rule 1.7 Part 264.193(b)-(f)]

III.D. OPERATING REQUIREMENTS

III.D.1. The Permittee shall not place hazardous wastes or treatment reagents in the tank system if they could cause the tank, its ancillary equipment, or a containment system to rupture, leak, corrode, or otherwise fail. [MHWMR Rule 1.7 Part 264.194(a)]

III.D.2. The Permittee shall prevent spills and overflows from the tank or containment systems using the methods described in Permit Attachment III.1. [MHWMR Rule 1.7 Part 264.194(b)]

III.E. RESPONSE TO LEAKS OR SPILLS

In the event of a leak or a spill from the tank system, from a secondary containment system, or if a system becomes unfit for continued use, the Permittee shall remove the system from service immediately and complete the following actions: [MHWMR Rule 1.7 Part 264.196(a)-(f)]

III.E.1. Stop the flow of hazardous waste into the system and inspect the system to determine the cause of the release.

III.E.2. Remove waste and accumulated precipitation from the system within 24 hours of the detection of the leak to prevent further release and to allow inspection and repair of the system. If the Permittee finds that it will be impossible to meet this time period, the Permittee shall notify the Executive Director and demonstrate that the longer time period is required.

If the collected material is a RCRA hazardous waste, it must be managed in accordance with all applicable requirements of MHWMR Parts 262-264. The Permittee shall note that if the collected material is discharged through a point source to U.S. waters or to a POTW, it is subject to requirements of the Clean Water Act. If the collected material is released to the environment, it may be subject to reporting under 40 CFR Part 302.

III.E.3. Contain visible releases to the environment. The Permittee shall immediately conduct a visual inspection of all releases to the environment and based on that inspection: (1) prevent further migration of the leak or spill to soils or surface water and (2) remove and properly dispose of any visible contamination of the soil or surface water.

III.E.4. Close the system in accordance with the Closure Plan, Permit Attachment II.8, unless the following actions are taken:

III.E.4.a. For a release caused by a spill that has not damaged the integrity

of the system, the Permittee shall remove the released waste and make any necessary repairs to fully restore the integrity of the system before returning the tank system to service.

III.E.4.b. For a release caused by a leak from the primary tank system to the secondary containment system, the Permittee shall repair the primary system prior to returning it to service.

III.E.4.c. For a release to the environment caused by a leak from the aboveground portion of the tank system that does not have secondary containment, and can be visually inspected, the Permittee shall repair the tank system before returning it to service.

III.E.4.d. For a release to the environment caused by a leak from the portion of the tank system component that is not readily available for visual inspection, the Permittee shall provide secondary containment that meets the requirements of MHWMR Rule 1.7 Part 264.193 before the component can be returned to service.

III.E.4.e. If the Permittee replaces a component of the tank system to comply with III.D.4.c) or III.D.4.d), that component must satisfy the requirements for new tank systems or components in MHWMR Rule 1.7 Part 264.192 and 264.193.

III.E.5. For all major repairs to eliminate leaks or restore the integrity of the tank system, the Permittee must obtain a certification by an independent, qualified, registered professional engineer that the repaired system is capable of handling hazardous wastes without release for the intended life of the system before returning the system to service. Examples of major repairs are installation of an internal liner, repair of a ruptured tank, or repair or replacement of a secondary containment vault.

III.F. INSPECTION SCHEDULES AND PROCEDURES

III.F.1. The Permittee shall inspect the tank systems, in accordance with the Inspection Schedule, Permit Attachment II.3, and shall complete the items in Permit Conditions III.F.2 and III.F.3 as part of those inspections.

III.F.2. The Permittee shall inspect the overfill controls, in accordance with the schedule in Permit Attachment II.3. [MHWMR Rule 1.7 Part 264.195(a)]

III.F.3. The Permittee shall inspect the following components of the tank system once each operating day: [MHWMR Rule 1.7 Part 264.195(b)]

III.F.3.a. Above ground portions of the tank system, if any, to detect corrosion or releases of waste;

III.F.3.b. Data gathered from monitoring and leak detection equipment (e.g., pressure or temperature gauges, monitoring wells) to ensure that the tank system is being operated according to its design;

III.F.3.c. Construction materials and the area immediately surrounding

the externally accessible portion of the tank system, including the secondary containment system, to detect erosion or signs of releases of hazardous waste (e.g., wet spots, dead vegetation).

III.F.4. The Permittee shall document compliance with Permit Condition III.F and place this documentation in the operating record for the facility. [MHWMR Rule 1.7 Part 264.195(d)]

III.G. RECORD KEEPING AND REPORTING

III.G.1. The Permittee shall report to the Executive Director, within 24 hours of detection, when a leak or spill of hazardous waste occurs from the tank system or secondary containment system to the environment. [MHWMR Rule 1.7 Part 264.196(d)(1)] (A leak or spill of one pound or less of hazardous waste, that is immediately contained and cleaned-up, need not be reported.) [MHWMR Rule 1.7 Part 264.196(d)(2)] (Releases that are contained within a secondary containment system need not be reported). If the Permittee has reported the release pursuant to 40 CFR Part 302, this report satisfies the requirements of this Permit Condition. [MHWMR Rule 1.7 Part 264.196(d)(1)]

III.G.2. Within 30 days of detecting a release to the environment from the tank system or secondary containment system, the Permittee shall report the following information to the Executive Director: [MHWMR Rule 1.7 Part 264.196(d)(3)]

III.G.2.a. Likely route of migration of the release;

III.G.2.b. Characteristics of the surrounding soil (including soil composition, geology, hydrogeology, and climate);

III.G.2.c. Results of any monitoring or sampling conducted in connection with the release. If the Permittee finds it will be impossible to meet this time period, the Permittee should provide the Executive Director with a schedule of when the results will be available. This schedule must be provided before the required 30-day submittal period expires;

III.G.2.d. Proximity of downgradient drinking water, surface water, and populated areas; and

III.G.2.e. Description of response actions taken or planned.

III.G.3. The Permittee shall submit to the Executive Director all certifications of major repairs to correct leaks within seven days from returning the tank system to use. [MHWMR Rule 1.7 Part 264.196(f)]

III.G.4. The Permittee shall obtain, and keep on file at the facility, the written statements by those persons required to certify the design and installation of the tank system. [MHWMR Rule 1.7 Part 264.192(g)]

III.G.5. The Permittee shall keep on file at the facility the written assessment of the tank system's integrity. [MHWMR Rule 1.7 Part 264.191(a)]

III.H. CLOSURE AND POST-CLOSURE CARE

III.H.1. At closure of the tank system(s), the Permittee shall follow the procedures in the Closure Plan, Permit Attachment II.8. [MHWMR Rule 1.7 Part 264.197(a)]

III.H.2. If the Permittee demonstrates that not all contaminated soils can be practically removed or decontaminated, in accordance with the Closure Plan, then the Permittee shall close the tank system(s) and perform post-closure care following the contingent procedures in the Closure Plan and in the Post-Closure Plan, Permit Attachment II.8. [MHWMR Rule 1.7 Part 264.197(b) and (c)]

III.I. SPECIAL TANK PROVISIONS FOR IGNITABLE OR REACTIVE WASTES

III.I.1. The Permittee shall not place ignitable or reactive waste in the tank system or in the secondary containment system, unless the procedures specified in Permit Attachment II.7 are followed. [MHWMR Rule 1.7 Part 264.198(a)]

III.I.2. The Permittee shall comply with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys, or an adjoining property line that can be built upon, as required in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code" (1977 or 1981). [MHWMR Rule 1.7 Part 264.198(b)]

III.J. SPECIAL TANK PROVISIONS FOR INCOMPATIBLE WASTES

The Permittee shall not place hazardous waste in a tank system that has not been decontaminated and that previously held an incompatible waste or material. [MHWMR Rule 1.7 Part 264.199(b)]

MODULE IV. CORRECTIVE ACTION FOR REGULATED UNITS

IV.A. MODULE HIGHLIGHTS

Groundwater corrective action has been implemented at the First Chemical Corporation Pascagoula, Mississippi facility to reduce and prevent further migration of contamination caused by past operational practices. The groundwater corrective action is site wide encompassing contamination caused by a RCRA regulated unit, Pond 3, and a HSWA regulated Solid Waste Management Unit (SWMU), SWMU 31 Sumps-Contaminated Southeastern Corner. This module contains the permit requirements for the site-wide groundwater corrective action system and associated groundwater monitoring system.

IV.B. WELL LOCATION, INSTALLATION AND CONSTRUCTION

The Permittee shall install and maintain a groundwater monitoring system to comply with the requirements specified below: [MHWMR Rule 1.7 Part 264.100(d)]

IV.B.1. The Permittee shall install and maintain groundwater monitoring wells at the locations specified on the map in Permit Attachment IV.1 and in conformance with the following list: [MHWMR Rule 1.7 Part 264.100(a)(3) and (d)]

IV.B.1.a. **Compliance Monitoring Wells –** For the purpose of this permit, wells MW-48 and/or any other wells required under Permit Condition IV.B.1.e. shall be designated as the compliance monitoring wells.

IV.B.1.b. **Corrective Action "Effectiveness" Monitoring Wells –** Monitoring wells MW-20s, MW-41, MW-53, MW-60, MW-61, MW-62. MW-64, MW-65, T-10 and/or any other wells required under Permit Condition IV.B.1.e. shall be used to monitor the effectiveness of the corrective action program. For the purpose of this permit these wells shall be designated as the "effectiveness" monitoring wells.

IV.B.1.c. **Background Monitoring Wells –** No wells at this facility are suitable for use as background monitoring wells. Until the Permittee provides data representative of the background concentrations of the constituents listed in Permit Condition IV.C, the background concentrations of these constituents will be considered to be at the Method Detection Limit.

IV.B.1.d. **Boundary Control Monitoring Wells –** Monitoring Wells MW-1, MW- 14, MW-19, MW-22, MW-26, MW-27, MW-28, MW-29, MW-39, MW-63, MW-66 and any other wells required under Permit Condition IV.B.1.e. shall be used to monitor the possibility of plume migration.

IV.B.1.e. A**dditional Monitoring Wells –** The Executive Director, or his representative, may require the construction of additional wells, change the designation of exiting monitoring wells (i.e., compliance, effectiveness, or boundary control), or delete existing wells from the corrective action/compliance groundwater

monitoring system in order to monitor changes in plume extent, groundwater flow rate, or groundwater flow direction. Any proposed addition, deletion, or change in designation of corrective action/compliance monitoring wells by the Permittee must first be approved by the Executive Director or his representative.

IV.B.2. The Permittee shall maintain the monitoring wells identified in Permit Condition IV.B.1., in accordance with the plans and specifications presented in Permit Attachment IV.1. [MHWMR Rule 1.7 Part 264.100(d)]

IV.B.3. All wells deleted from the monitoring program shall be plugged and abandoned in accordance with "Handbook of Suggested Practices for the Design and Installation of Ground-Water Monitoring Wells," US EPA 600/4-89/034, and "State of Mississippi Surface Water And Ground Water Use And Protection Regulations." Well plugging and abandonment methods and certification shall be submitted to the Executive Director within thirty (**30) days** from the date the wells are removed from the monitoring program.

IV.C. GROUNDWATER PROTECTION STANDARD

IV.C.1. The Permittee shall implement a corrective action program to ensure that regulated units comply with the groundwater protection standard. [MHWMR Rule 1.7 Part 264.100(d)]

The following hazardous constituents and their concentration limits comprise the groundwater protection standard: [MHWMR Rule 1.7 Part 264.93 and 264.94]

Hazardous Constituents	Concentration limits (mg/L)	Analytical Method (SW-846)
Benzene	0.005	8021B/8620B
Tolune	1.0	8021B/8260B
Aniline	MDL	8270C
2,4,-Dinitrotoluene	MDL	8091/8270C
2,6-Dinitrotoluene	MDL	8091/8270C
Nitrobenzene	MDL	8091/8270C
Diphenylamine	MDL	8270C
N-nitrosodiphenylamine	MDL	8270C
4,6-dinitro-o-cresol	MDL	8270C

Hazardous Constituents	Concentration limits (mg/L)	Analytical Method (SW-846)
2,4-dinitrophenol	MDL	8270C
2-nitrophenol	MDL	8041/8270C
3-nitroanaline	MDL	8270C
4-arninobiphenyl	MDL	8270C
4-nitrophenol	MDL	8041/8270C
5- nitro-ortho-toluidine	MDL	8270C
naphthalene	MDL	8270C
phenol	MDL	8041/8270C
o-cresol	MDL	8270C
m & p-cresol	MDL	8270C
cyanide	0.2 (as free cyanide)	9010
m-dinitrobenzene	MDL	8270C
o-toluidine	MDL	8270C
total phenols [1]	N/A	N/A
carbon disulfide	MDL	8260B
Antimony	0.006	6010B/6020
Arsenic	0.01	6010B/7060A/7061A
Barium	2.0	6010B/6020
Beryllium	0.004	6010B/7091/6020
Cadium	0.005	6010B/7130/7131A/ 6020
Chromium (total)	0.1	6010B/7191/6020
Cobalt	MDL	6010B/6020

Hazardous Constituents	Concentration limits (mg/L)	Analytical Method (SW-846)
Nickel	MDL	6010B/6020

[1]Total phenols reported as the summation of the phenols contained in the list of hazardous constituents.

IV.C.2. The Permittee shall monitor MW-48 at the point of compliance, and those wells between the point of compliance and the plume boundary, as described in Permit Condition IV.B., and as designated in Permit Attachment IV.l. [MHWMR Rule 1.7Parts 264.95 and 264.100(d)]

IV.C.3. The Permittee shall monitor for the underlined hazardous constituents listed in Permit Condition IV.C.l during the compliance period. The compliance period shall be defined to begin on the effective date of this permit and to continue until the groundwater protection standard for all constituents in Permit Condition IV.C.l has not been exceeded for a period of three (3) consecutive years in any compliance or "effectiveness" monitoring well specified in Permit Condition IV.B.l. [MHWMR Rule1.7 Part 264.93]

IV.C.3.a. All compliance and the "effectiveness" monitoring wells listed in Permit Condition IV.B.l.a) and IV.B.l.b) shall be sampled annually for the underlined groundwater protection parameters listed in Permit Condition IV.C.l above.

IV.C.3.b. All boundary control monitoring wells listed in Permit Condition IV.B.l.c) above shall be sampled annually for the underlined groundwater protection parameters and biennially for all of the groundwater protection parameters listed in Permit Condition IV.C.l above.

IV.C.3.c. Monitoring wells MW-20S and MW-53 shall be sampled biennially on alternating years for all MHWMR Part 264 Appendix IX Parameters as specified by MHWMR 264.99(g), excluding herbicides and pesticides.

IV.D. CORRECTIVE ACTION PROGRAM

IV.D.l. The Permittee began groundwater corrective action in September of 1990 under the approval of the Executive Director. [MHWMR 264.100(c)]

IV.D.2. The Permittee shall maintain the corrective action program outlined in Permit Attachment IV.2 to remove any hazardous constituents that exceed concentration limits in groundwater between the compliance point and the down gradient facility property boundary, and beyond the facility boundary, where necessary to protect human health and the environment. [MHWMR

Rule 1.7 Part 264.100(b)]

IV.D.3. If the groundwater protection standard is met during the compliance period, the Permittee shall continue corrective action to the extent necessary to ensure that the groundwater protection standard is not exceeded. If corrective action is required beyond the compliance period, it must continue until the groundwater protection standard has not been exceeded for three consecutive years. [MHWMR Rule 1.7 Part 264.100(f)]

IV.E. SAMPLING AND ANALYSIS PROCEDURES

The Permittee shall use the following techniques and procedures, or an alternative method (such as amendments to methods described in EPA SW-846) or technique approved prior to use by the Executive Director, when obtaining and analyzing samples from the groundwater monitoring wells described in Permit Condition IV.B: [MHWMR Rule 1.7 Part 264.97(d) and (e)]

IV.E.l. Samples shall be collected by the techniques described in Permit Attachment IV.3.

IV.E.2. Samples shall be preserved and shipped, in accordance with the procedures specified in Permit Attachment IV.3.

IV.E.3. Samples shall be analyzed according to the procedures specified in Permit Attachment IV.3.

IV.E.4. Samples shall be tracked and controlled using the chain-of-custody procedures specified in Permit Attachment IV.3.

IV.F. GROUNDWATER SURFACE ELEVATION

IV.F.l. The Permittee shall determine the groundwater surface elevation each time groundwater is sampled, in accordance with Permit Condition IV.H. [MHWMR Rule 1.7 Part 264.97(f)]

IV.F.2. The Permittee shall report the surveyed elevation of the monitoring well(s) when the well(s) is (are) installed.

IV.G. STATISTICAL PROCEDURES

IV.G.l. In order to reduce the area of monitoring or to discontinue corrective action under Permit Condition IV.D.3., the monitoring results from individual wells shall be evaluated using statistical procedures. Within 90 days of proposing to reduce the area of monitoring and/or to discontinue corrective action, the Permittee shall submit an application for a permit modification that includes proposed statistical procedures to the Executive Director for approval. The approved statistical procedures shall then be used to determine if the groundwater protection standard has been met in accordance with Permit Condition IV.H.6.

IV.G.2. For compounds that are not naturally occurring and/or those compounds not detected in background samples, the following conditions will constitute a

significant evidence of contamination (subject to QA/QC checks and confirmation by retesting in accordance with IV.G.3).

IV.G.2.a. A compound is detected above a PQL.

IV.G.2.b. More than one compound is detected in a well above the MDL but below the PQL twice or more in a twelve-month period.

IV.G.2.c. One compound is detected in a well above the MDL but below the PQL twice or more in a twelve-month period.

IV.G.2.d. A compound (or compounds) is detected above the MDL but below the PQL, either in a single well or in multiple wells, and a review of data shows trends or indications that a release may have occurred. Such a review of available data, including graphical and spatial analyses, must be documented by the Permittee either at the next scheduled monitoring event or as otherwise required by permit condition, regulation or law.

IV.G.3. A retest (if desired) will consist of analyzing two additional samples. Such samples must be collected in separate events (i.e., after re-purging the wells prior to sampling). It will not be necessary, however, to obtain an independent sample with respect to the interval of time between subsequent samples. Confirmation of contaminant detection will occur if analysis of either sample collected during the retest detects the compounds found in the original sample. If additional or different compounds are found in a retest further sampling may be necessary to determine, in accordance with permit condition IV.G.2, if a release of additional constituents has occurred.

IV.H. MONITORING PROGRAM AND DATA EVALUATION

The Permittee shall establish and implement a groundwater-monitoring program to demonstrate the effectiveness of the corrective action program. Groundwater monitoring shall be conducted and shall be as effective as the program for compliance monitoring under MHWMR Rule 1.7 Part 264.97 and MHWMR Rule 1.7 Part 264.99. The Permittee shall determine groundwater quality as follows:

IV.H.l. The Permittee shall collect, preserve and analyze samples in accordance with Permit Condition IV.E.

IV.H.2. The Permittee shall determine the concentrations of the hazardous constituents specified in Permit Condition IV.C., throughout the compliance period and any extensions due to corrective action implementation, to demonstrate conformance with the groundwater protection standard. [MHWMR 264.96] The Permittee shall determine the concentration of hazardous constituents in groundwater at each monitoring well specified in Permit Condition IV.B.l at the frequency and for the parameters specified in Permit Condition IV.C.3. [MHWMR Rule 1.7 Part 264.100(d)]

IV.H.3. The Permittee shall analyze samples from monitoring wells MW-20S and MW-

53 at the compliance point for all constituents contained in MHWMR Rule l.7 Part 264, Appendix IX biennially on alternating years, to determine if additional hazardous constituents are present in the uppermost aquifer. If the Permittee finds additional hazardous constituents present (i.e., not listed in Permit Condition IV.C.), their concentrations shall be reported to the Executive Director in writing within seven days of receiving the analysis.

The Permittee may eliminate Appendix IX constituents from analysis requirements if the Permittee can document that no waste or product containing those compounds/constituents has ever been handled at the site, and that any waste or product that has been handled at the site could not have resulted in such constituents as degradation products. Such documentation should be based on an in-depth study of the historical waste management practices at the site (including the practices of previous owners or occupants of the site property). The documentation should be submitted to the Executive Director for approval and should contain a sworn affidavit with the following wording signed by the plant manager, and executive officer of the company or corporation and corporate counsel:

Based on our in-depth study of the historical waste management practices at First Chemical Corporation's Pascagoula, Mississippi facility, including but not limited to [personal knowledge, review of historical operating records, personnel interviews with long term current and/or former employees, etc.], we do hereby:

l. Certify that none of the chemical compounds or constituents listed below have ever been handled or managed at the First Chemical Corporation Pascagoula, Mississippi site, nor are they likely to be present as degradation products of any materials known to have been handled at the site, and,

2. Affirmatively state that, to the best of our knowledge and belief, none of the chemical compounds or constituents listed below have ever been handled or managed at the First Chemical Corporation Pascagoula, Mississippi site by previous owners or operators, nor are they likely to be present as degradation products of any materials known to have been handled at the site by previous owners or operators.

IV.H.4. The Permittee shall determine the groundwater flow rate and direction in the uppermost aquifer at least annually. [MHWMR Rule 1.7 Part 264.98(e)]

IV.H.5. The Permittee shall determine if there is significant evidence of groundwater contamination in the boundary control monitoring wells listed in Permit Condition IV.B.1.d) each time these wells are sampled in accordance with Permit Condition IV.G.2. If a significant evidence of contamination exists, the Permittee shall report in writing to the Executive Director within seven (7) days of making the determination.

IV.H.6. Upon reaching the groundwater protection standard listed in Permit Condition IV.C, the Permittee shall statistically compare the measured concentration of each monitored hazardous constituent with its concentration limit in the groundwater protection standard each time groundwater quality is determined, in accordance with Permit Condition IV.H.2. The Permittee must compare the groundwater quality measured at each point of the compliance monitoring well and any other specified wells, as stated in Permit Condition IV.C. and in accordance with the procedures specified in Permit Condition IV.G.

IV.I. RECORD KEEPING AND REPORTING

IV.1.1. The Permittee shall enter all monitoring, testing and analytical data obtained, according to Permit Condition IV.H.2., in the operating record. The data must include all computations, calculated means, variances, and results of the statistical test(s) that the Executive Director has specified. [MHWMR Rule 1.7 Part 264.73(b)(6)]

IV.I.2. The Permittee shall report, in writing, annually to the Executive Director on the effectiveness of the corrective action program. These reports shall be submitted on March 1 of each year until the corrective action program has been completed. [MHWMR Rule 1.7 Part 264.100(g)]

IV.J. REQUEST FOR PERMIT MODIFICATION

If the Permittee or the Executive Director determines that the corrective action program established by this permit no longer satisfies the regulatory requirements, then the Permittee must submit an application for a permit modification within 90 days to make any appropriate changes to the program. [MHWMR Rule 1.7 Part 264.100(h)]

IV.K. COMPLIANCE SCHEDULE

The Permittee shall provide the following to the Executive Director:

IV.K.l. Until notified by the Executive Director the Permittee shall provide quarterly reports to the Executive Director on the status of the development and implementation of corrective action activities conducted in accordance with the HSWA permit.

IV.K.l.a. The permittee shall notify the Executive Director two weeks prior to conducting any field identified under IV.K.l.

IV.K.l.b. The Permittee shall make a permit modification request as necessary to make any changes to the groundwater monitoring and corrective action system to ensure that the groundwater contaminant plume(s) beneath the facility are being captured within 90 days of completing the field activities, unless an extension has been granted by the Executive Director.

MODULE V. INCINERATION

V.A. MODULE HIGHLIGHTS

The Permittee has demonstrated compliance with maximum achievable control technology (MACT) requirements of 40 CFR part 63, subpart EEE by conducting a Comprehensive Performance Test and submitting to the Executive Director a Notification of Compliance under 40 CFR Sections 63.1207(j) and 63.1210(b) documenting compliance with the 40 CFR Part 63, Subpart EEE requirements.

V.B. MERCURY EMISSIONS

V.B.l. In accordance with the results of risk assessment report of 2011, FCC will limit the annual mercury feed to the incinerator to no more than 1.3 kg/yr.

V.B.2. The total quantity of mercury fed to the incinerator in any consecutive 12 month period shall not exceed 1.3 kg, as determined by use of quarterly analysis of the feed streams and the total flow of each feed stream for the calendar quarter.

V.B.3. The Permittee shall record the quantity of each waste stream fed to the incinerator, and shall sample and analyze each waste feed stream for mercury content at least quarterly.

V.B.4. The Permittee shall calculate the total quantity of mercury fed to the incinerator each calendar quarter and shall calculate an annual total of mercury fed to the incinerator to document compliance with permit Condition V.B.2.

V.C. INSPECTION REQUIREMENTS

The Permittee shall inspect the incineration unit in accordance with the Inspection Schedule, Permit Attachment II.3, and shall complete the following as part of these inspections:

V.C.l. The Permittee shall thoroughly, visually inspect the incinerator and associated equipment (including pumps, valves, conveyors, pipes, etc.) for leaks, spills, fugitive emissions, and signs of tampering. [MHWMR 264.347(b)]

V.C.2. The Permittee shall thoroughly, visually inspect the instrumentation for out-of-tolerance monitored and/or recorded operational data.

V.D. MONITORING REQUIREMENTS

V.D.l. The Permittee shall maintain, calibrate, and operate monitoring equipment and record the data continuously while incinerating hazardous waste, as specified below:

System Parameter	Monitor Type, Instrument No.	Display	Calibration Frequency
Burner 1 Waste	Micromotion DL65 Mass Flow Meters or equivalent	Control Room FSH-1101	Minimum Quarterly
Burner 2 Waste	Micromotion DL65 Mass Flow Meters or equivalent	Control Room FSH-1102	Minimum Quarterly

[1]The Calibration Procedures shall be performed in accordance with the Operation and Maintenance Plan required under 40 CFR Part 63 Subpart EEE.

V.D.2. The Permittee shall record and maintain the monitoring and inspection data as required by MHWMR Part Rule 1.7 Part 264.347(d).

V.D.3. The Permittee must cease waste feed when the quantity of mercury in the waste feed would result in an exceedance of the mercury limit of Permit Condition V.B.l.

V.E. CLOSURE

The Permittee shall follow the procedures in the Closure Plan, Permit Attachment II.8. [MHWMR Rule 1.7 Part 264.351]

V.F RECORDKEEPING

The Permittee shall record and maintain, in the operating record for this permit, all monitoring and inspection data compiled under the requirements of this Permit. [MHWMR Rule 1.7 Parts 264.73 and 264.347(d)]

MODULE VI. POST-CLOSURE CARE

VI.A. MODULE HIGHLIGHTS

This module addresses post-closure care requirements for the closed surface impoundment identified as Pond 3. Final closure of the unit was completed in 2007. Permittee is required to perform inspections, make any needed repairs to the cap, keep the associated records, continue groundwater corrective action, and maintain financial assurance for the post closure activities, including one-half of the total cost for operation of the corrective action system and groundwater monitoring.

VI.B. UNIT IDENTIFICATION

The Permittee shall provide post-closure care for the following hazardous waste management units, subject to the terms and conditions of this permit, and as described as follows:

Type of Waste Unit	Unit No. or Other Designation	Maximum Waste Inventory	Description of Wastes Contained	Hazardous Waste No.
Surface Impoundment	Pond 3	2,700 gal	Wastewater containing distillation bottoms from the production of nitrobenzene	K104 K083

VI.C. POST-CLOSURE PROCEDURES AND USE OF PROPERTY

VI.C.l. The Permittee shall conduct post-closure care for each hazardous waste management unit listed in Permit Condition VI.B. above, to begin after completion of closure of the unit and continue for 30 years after that date, except that the 30- year post-closure care period may be shortened upon application and demonstration approved by MDEQ that the facility is secure, or may be extended by MDEQ if the Executive Director finds this is necessary to protect human health and the environment. [MHWMR Rule 1.7 Part 264.117(a)]

VI.C.2. The Permittee shall maintain and monitor the groundwater monitoring system and comply with all other applicable requirements of MHWMR Part 264 Subpart F during the post-closure period. [MHWMR Rule 1.7 Part 264.117(a)(l)]

VI.C.3. The Permittee shall comply with the requirements for surface impoundments as follows: [MHWMR Rule 1.7 Part 264.228(b)(l) and (3)]

VI.C.3.a. Maintain the integrity and effectiveness of the final cover, including making repairs to the cap, as necessary, to correct the effects of settling, subsidence, erosion, and other events; and

VI.C.3.b. Prevent run-on and run-off from eroding or otherwise damaging

the final cover.

VI.C.4. The Permittee shall comply with all security requirements, as specified in Permit Attachment II.2. [MHWMR Rule 1.7 Part 264.117(b)]

VI.C.5. The Permittee shall not allow any use of the units designated in Permit Condition VI.C which will disturb the integrity of the final cover, liners, any components of the containment system, or the function of the facility's monitoring systems during the post-closure care period. [MHWMR Rule 1.7 Part 264.ll7(c)]

VI.C.6. The Permittee shall implement the Post-Closure Plan, Permit Attachment II.8. All post-closure care activities must be conducted in accordance with the provisions of the Post-Closure Plan. [MHWMR Rule 1.7 Part 264.117(d) and 264.118(b)]

VI.D. INSPECTIONS

The Permittee shall inspect the components, structures, and equipment at the site in accordance with the Inspection Schedule, Permit Attachment II.3. [MHWMR Rule 1.7 Part 264.ll7(a)(l)(ii)]

VI.E. NOTICES AND CERT1FICATION

VI.E.l. If the Permittee or any subsequent owner or operator of the land upon which the hazardous waste disposal unit is located, wishes to remove hazardous wastes and hazardous waste residues, the liner, if any; or contaminated soils, then he shall request a modification to this post closure permit in accordance with the applicable requirements in MHWMR Parts 124 and 270. The Permittee or any subsequent owner or operator of the land shall demonstrate that the removal of hazardous wastes will satisfy the criteria of MHWMR Rule 1.7 Part 264.117(c). [MHWMR Rule 1.7 Part 264.119(c)]

VI.E.2. No later than 60 days after completion of the established post-closure care period for each hazardous waste disposal unit, the Permittee shall submit to the Executive Director, by registered mail, a certification that the post-closure care for the hazardous waste disposal unit was performed in accordance with the specifications in the approved Post-Closure Plan. The certification must be signed by the Permittee and an independent, registered professional engineer. Documentation supporting the independent, registered professional engineer's certification must be furnished to the Executive Director upon request until the Executive Director releases the Permittee from the financial assurance requirements for post- closure care under MHWMR Rule 1.7 Part 264.145(1). [MHWMR Rule 1.7Part 264.120]

VI.F. FINANCIAL ASSURANCE

The Permittee shall maintain financial assurance during the post-closure period for all required activities and comply with all applicable requirements of MHWMR Part 264

Subpart H. The Permittee shall maintain financial assurance for groundwater corrective action pertaining to the closed surface impoundment, Pond 3, which shall be calculated as one-half of the total cost of the site-wide groundwater remediation and monitoring costs as described in Modules E and I of the application, which is hereby incorporated by reference in this permit. [MHWMR Rule 1.7 Part 264.145]

VI.G. POST-CLOSURE PERMIT MODIFICATIONS

The Permittee must request a permit modification to authorize a change in the approved Post- Closure Plan. This request must be in accordance with applicable requirements of MHWMR Parts 124 and 270, and must include a copy of the proposed amended Post-Closure Plan for approval by the Executive Director. The Permittee shall request a permit modification whenever changes in operating plans or facility design affect the approved Post-Closure Plan, there is a change in the expected year of final closure, or other events occur during the active life of the facility that affect the approved Post-Closure Plan. The Permittee must submit a written request for a permit modification at least 60 days prior to the proposed change in facility design or operation, or no later than 60 days after an unexpected event has occurred which has affected the Post-Closure Plan. [MHWMR Rule 1.7 Part 264.ll8(d)]

MODULE VII. WASTE MINIMIZATION

VII.A. GENERAL RESTRICTIONS

VII.A.1. Pursuant to MHWMR 264.73(b)(9); Section 3005(h) of RCRA, 42 U.S.C. 6925(h); and Section 49-31-1 et seq., Mississippi Code of 1972; the Permittee must certify, no less than annually, that:

VII.A.1.a. The Permittee has a program in place to reduce the volume and toxicity of hazardous waste generated to the degree determined by the Permittee to be economically practicable; and

VII.A.l.b. The proposed method of treatment, storage or disposal is the most practicable method available to the Permittee that minimizes the present and future threat to human health and the environment.

VII.B. RECORDING REQUIREMENTS

VII.B.l. Annually, the Permittee shall submit a certification report of the types and quantities of waste generated, and the types and quantities of waste reduced/minimized. This certified report shall include a narrative study explaining the waste generation and minimization data, a description of goals and progress made in reducing/minimizing the generation of wastes, and a description of any impediments to the reduction and minimization of waste.

VII.B.2. The Permittee shall maintain copies of this certification in the facility operating record as required by Permit Condition VII.B.1.

VII.C. WASTE MINIMIZATION OBJECTIVES

The Waste Minimization program under Permit Condition VII.A. should address the objectives in Permit Attachment VII.l.

MODULE VIII. RCRA ORGANIC AIR EMISSION REQUIREMENTS FOR EQUIPMENT LEAKS

VIII.A. GENERAL INTRODUCTION

In the June 21, 1990, Federal Register, EPA promulgated the final rule for Phase I of the Organic Air Emission Standards (40 CFR Parts 264 and 265, Subpart BB) for hazardous waste treatment, storage, and disposal (TSD) facilities. Subpart BB applies to equipment (i.e., pumps, valves, compressors, etc.) that contains or contacts hazardous waste streams with greater than ten (10) percent by weight organics.

VIII.B. PERMITTED AND PROHIBITED WASTE IDENTIFICATION

VIII.B.l. The Permittee may manage only on-site generated hazardous wastes with the equipment listed in Attachment IX.1 subject to the terms of this permit.

VIII.B.2. The Permittee is prohibited from managing hazardous waste in permitted units that is not identified in Condition III.B. of this RCRA Permit.

VIII.C. EMISSION CONTROL TECHNOLOGY

The Permittee shall install and maintain equipment and associated emission control technology according to detailed plans and reports contained in the Part B permit application.

VIII.D. MONITORING AND INSPECTION SCHEDULES AND PROCEDURES

VIIID.l. Valves

VIII.D.l.a. The valves listed in Attachment IX.l shall be monitored monthly using Reference Method 21, and must maintain a reading of less than 10,000 ppm. Any valve for which a leak is not detected for two successive months may be monitored the first month of each succeeding quarter until a leak is detected. If a leak is detected, the Permittee must resume monitoring the valve monthly until a leak is not detected for two successive months. All leaks must be repaired and in compliance no later than fifteen (15) calendar days after leak detection and a first attempt at repair must be made no later than five (5) calendar days after leak detection. [MHWMR Rule 1.7 Part 264.1057(a)-(e)]

VIII.D.1.b. The valves listed in Attachment IX.1 and designated NDE are considered leakless and achieve a no-detectable emissions limit (500 ppm above background as measured by Reference Method 21) and must have performance tests conducted initially upon designation, annually, and as requested at other times by the Executive Director [MHWMR Rule 1.7 Part 264.1057(t)].

VIII.D.l.c. The valves listed in Attachment IX.1 of Appendix Hand designated HLS shall be considered in heavy liquid service, shall be monitored visually, audibly, by olfactory methods, or

other detection methods, and shall comply with the required repair program if evidence of a leak is found [MHWMR Rule 1.7 Part 264.1058].

VIII.D.2. Pumps

VIII.D.2.a. The pumps listed in Attachment VIII.1 shall be inspected weekly and monitored monthly using Reference Methods 21, and must maintain a reading less than 10,000 ppm and must comply with the leak repair program. [MHWMR Rule 1.7 Part 265.1052(a)-(c)]

VIII.D.2.b. The pumps listed in Attachment VIII.1 and designated NDE are designated for no detectable emissions limit (500 ppm above background as measured by Reference Method 21) and must be measured initially upon designation, annually, and as requested at other times by the Executive Director [MHWMR Rule 1.7 Part 264.1052(e)].

VIII.D.2.c. The pumps listed in Attachment VIII.1 and designated HLS shall be considered in heavy liquid service, shall be monitored visually, audibly, by olfactory methods, or other detection method, and shall comply with the required repair program if evidence of a leak is found [MHWMR Rule 1.7 Part 264.1058].

VIII.D.3. Pressure Relief Devices

The pressure relief devices listed in Attachment VIII.1 and designated NDE must be operated with no detectable emissions (500 ppm above background as measured by Reference Method 21) and must be monitored at the frequency specified in the Part B permit application and no later than 15 calendar days after each pressure release [MHWMR 2 Rule 1.7 Part 64.1054(a)-(b)].

VIII.D.4. Flanges and Other Connectors

The flanges and other connectors listed in Attachment VIII.1 shall be monitored visually, audibly, by olfactory methods, or other detection methods, and shall comply with the required repair program if evidence of a leak is found. [MHWMR Rule 1.7 Part 264.l058].

VIII.E. RECORDKEEPING AND REPORTING

VIII.E.l. The Permittee shall keep on-file the following equipment information: listing of an identification number for each piece of equipment that contains or contacts hazardous wastes with organic concentrations of at least 10 percent by weight; the respective hazardous waste management unit identification; each piece of equipment's specific location at the facility; and the type of equipment (i.e., valve, pump, compressor, pressure relief device, open-ended valve or line, flange or other connector, associated air emission control device or system); the

hazardous waste state at the equipment; the method of compliance with the standard; and documentation of compliance. [MHWMR Rule 1.7 Part 264.1064(b)(1)]

VIII.E.2. The Permittee shall identify each piece of leaking equipment and provide required recordkeeping as provided in MHWMR Rule 1.7 Part 264.1064(d).

VIII.E.3. The Permittee shall comply with the information requirements for equipment subject to MHWMR 264.1052 through 264.1060. [MHWMR Rule 1.7 Part 264.1064(g)]

VIII.E.4. The Permittee shall comply with the recordkeeping requirements for valves unsafe or difficult to monitor. [MHWMR Rule 1.7 Part 264.1064(h)]

VIII.E.5. The Permittee shall keep on-file information used in determining exemptions. [MHWMR Rule 1.7 Part 264.1064(k)]

VIII.E.6. The Permittee shall report semiannually to the Executive Director (beginning 6 months after the effective date of the permit) the information on valve, pump, and/or compressor leaks that were not repaired in accordance with requirements, the dates of hazardous waste management unit shutdowns, and where control devices are in use, the dates in each month during the reporting period when a control device exceeded or operated outside the design specifications as defined in MHWMR 264.1064(e) as indicated by the control device monitoring required by MHWMR 264.1060 and was not corrected within twenty-four (24) hours. [MHWMR Rule 1.7 Part 264.1065(a)]

VIII.E.7. If, during the semiannual reporting period, leaks from valves and pumps are repaired as required in MHWMR Rule 1.7 Parts 264.1057(d) and 264.1052(c), respectively, a report to the Executive Director is not required. [MHWMR Rule 1.7 Part 264.1065(b)]

MODULE IX – AIR EMISSION STANDARDS FOR TANKS, SURFACE IMPOUNDMENTS, AND CONTAINERS

IX.A. GENERAL INTRODUCTION

In the December 6, 1994, Federal Register, EPA promulgated the final rule for Air Emission Standards for Tanks, Surface Impoundments, and Containers (40 CFR Parts 264 and 265, Subpart CC) for hazardous waste treatment, storage, and disposal (TSD) facilities. FCC does not operate a surface impoundment or containers that are subject to permitting requirements. FCC does operate five (5) permitted hazardous waste storage tanks that manage hazardous wastes containing greater than 500 parts per million by weight Volatile Organic Compounds which are therefore subject to Subpart CC. FCC is required to comply with level 1 controls which require tanks to have a fixed roof with no visible cracks, holes, gaps, or other spaces in accordance with MHWMR Rule 1.7 Part 264.1084(c). The tanks must be inspected for defects at least annually.

IX.B. APPLICABILITY

MHWMR Rule 1.7 Part 264, Subpart CC, applies to the five (5) permitted hazardous waste storage tanks, TK-1057, TK-1058, TK-1059, TK-1060, and TK-1403.

IX.C. EMISSION CONTROL TECHNOLOGY

The permittee shall install and maintain all affected units and associated emission control technology in accordance with the detailed plans, schedules, information, and reports as contained in Section D of the permit application. Each affected tank shall comply with level 1 controls which require each tank to have a fixed roof with no visible cracks, gaps, holes or other spaces, and shall meet the specifications and operating requirements of MHWMR Rule 1.7 Part 264.1084(c).

IX.D. INSPECTIONS

Each tank identified in Permit Condition IX.B. shall be inspected at least once per year for any cracks, gaps, holes, or other defects in tank roof, gaskets or hatches which could result in air pollutant emissions. Any needed repairs shall be completed in accordance with the requirements of MHWMR Rule 1.7 Part 264.1084(k). Any new or replacement tank shall be inspected prior to being placed in service subject to Subpart CC.

IX.E. RECORDKEEPING

The Permittee shall record and maintain the information required by MHWMR Rule 1.7 Part 264.1089(a) and (b), as applicable, including, but not limited to, a record of each inspection, and corrective action taken to repair any defect identified.

IX.F. REPORTING

For the tanks listed in Permit Condition IX.B., a written report shall be submitted to the

Executive Director within fifteen (15) days of each occurrence when hazardous waste is managed in the tank in noncompliance with the conditions specified in MHWMR Rule 1.7 Part 264.1084(b) or (c).

The report shall contain the information specified in MHWMR Rule 1.7 Part 264.1090(b).

MODULE X – LAND DISPOSAL RESTRICTIONS

X.A. GENERAL RESTRICTIONS

MHWMR Rule 1.15 Part 268 identifies hazardous wastes that are restricted from land disposal and defines those limited circumstances which an otherwise prohibited waste may continue to be placed on or in a land treatment, storage or disposal unit. The Permittee shall maintain compliance with the requirements of MHWMR Rule 1.15 Part 268. Where the Permittee has applied for an extension, waiver or variance under MHWMR Rule 1.15 Part 268, the Permittee shall comply with all restrictions on land disposal under this Module once the effective date for the waste has been reached pending final approval of such application.

X.B. LAND DISPOSAL PROHIBITIONS AND TREATMENT STANDARDS

X.B.1. A restricted waste identified in MHWMR Rule 1.15 Part 268 Subpart C may not be placed in a land disposal unit without further treatment unless the requirements of MHWMR Rule 1.15 Part 268 Subparts C and/or D are met.

X.B.2. The storage of hazardous wastes restricted from land disposal under MHWMR Rule 1.15 Part 268 is prohibited unless the requirements of MHWMR Part 268 Subpart E are met.

ATTACHMENT I.1.

PART A APPLICATION

OMB# 2050-0024; Expires 11/30/2011

SEND COMPLETED FORM TO: The Appropriate State or Regional Office.

United States Environmental Protection Agency
RCRA SUBTITLE C SITE IDENTIFICATION FORM

1. Reason for Submittal (MARK ALL BOX(ES) THAT APPLY)

Reason for Submittal:

- ☐ To provide an Initial Notification (first time submitting site identification information / to obtain an EPA ID number for this location)
- ☐ To provide a Subsequent Notification (to update site identification information for this location)
- ☐ As a component of a First RCRA Hazardous Waste Part A Permit Application
- ☒ As a component of a Revised RCRA Hazardous Waste Part A Permit Application (Amendment #_____)
- ☐ As a component of the Hazardous Waste Report (If marked, see sub-bullet below)
  - ☐ Site was a TSD facility and/or generator of ≥1,000 kg of hazardous waste, >1 kg of acute hazardous waste, or >100 kg of acute hazardous waste spill cleanup in one or more months of the report year (or State equivalent LQG regulations)

2. Site EPA ID Number

EPA ID Number MSD033417031

3. Site Name

Name: First Chemical LLC d/b/a Oleo-X

4. Site Location Information

Street Address: 1001 Industrial Road

City, Town, or Village: Pascagoula **County:** Jackson

State: MS **Country:** USA **Zip Code:** 39581

5. Site Land Type

☒ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

6. NAICS Code(s) for the Site (at least 5-digit codes)

A.	311225	**C.**	325120
B.	551111 2	**D.**	325199

7. Site Mailing Address

Street or P.O. Box: 1001 Industrial Road

City, Town, or Village: Pascagoula

State: MS **Country:** USA **Zip Code:** 39581

8. Site Contact Person

First Name: Greg **MI:** **Last:** Hust

Title: Plant Manager

Street or P.O. Box: 1001 Industrial Road

City, Town or Village: Pascagoula

State: MS **Country:** USA **Zip Code:** 39581

Email:

Phone: 228-227-2626 **Ext.:** **Fax:**

9. Legal Owner and Operator of the Site

A. Name of Site's Legal Owner: First Chemical LLC dba Oleo-X **Date Became Owner:** 06/09/2022

Owner Type: ☒ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

Street or P.O. Box: 1001 Industrial Road

City, Town, or Village: Pascagoula **Phone:** 609-221-8253

State: MS **Country:** USA **Zip Code:** 39581

B. Name of Site's Operator: First Chemical LLC d/b/a Oleo-X **Date Became Operator:** 06/09/2022

Operator Type: ☒ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

10. Type of Regulated Waste Activity (at your site)
Mark "Yes" or "No" for all current activities (as of the date submitting the form); complete any additional boxes as instructed.

A. Hazardous Waste Activities; Complete all parts 1-7.

Y ☐ N ☒ **1. Generator of Hazardous Waste**
If "Yes", mark only one of the following – a, b, or c.

- ☐ a. LQG: Generates, in any calendar month, 1,000 kg/mo (2,200 lbs./mo.) or more of hazardous waste; **or** Generates, in any calendar month, or accumulates at any time, more than 1 kg/mo (2.2 lbs./mo) of acute hazardous waste; **or** Generates, in any calendar month, **or** accumulates at any time, more than 100 kg/mo (220 lbs./mo) of acute hazardous spill cleanup material.
- ☐ b. SQG: 100 to 1,000 kg/mo (220 – 2,200 lbs./mo) of non-acute hazardous waste.
- ☐ c. CESQG: Less than 100 kg/mo (220 lbs./mo) of non-acute hazardous waste.

If "Yes" above, indicate other generator activities.

Y ☐ N ☒ d. Short-Term Generator (generate from a short-term or one-time event and not from on-going processes). If "Yes", provide an explanation in the Comments section.

Y ☐ N ☒ e. United States Importer of Hazardous Waste

Y ☐ N ☒ f. Mixed Waste (hazardous and radioactive) Generator

Y ☐ N ☒ **2. Transporter of Hazardous Waste**
If "Yes", mark all that apply.
- ☐ a. Transporter
- ☐ b. Transfer Facility (at your site)

Y ☐ N ☒ **3. Treater, Storer, or Disposer of Hazardous Waste** Note: A hazardous waste permit is required for these activities.

Y ☐ N ☒ **4. Recycler of Hazardous Waste**

Y ☐ N ☐ **5. Exempt Boiler and/or Industrial Furnace**
If "Yes", mark all that apply.
- ☐ a. Small Quantity On-site Burner Exemption
- ☐ b. Smelting, Melting, and Refining Furnace Exemption

Y ☐ N ☒ **6. Underground Injection Control**

Y ☐ N ☒ **7. Receives Hazardous Waste from Off-site**

B. Universal Waste Activities; Complete all parts 1-2.

Y ☐ N ☒ **1. Large Quantity Handler of Universal Waste (you accumulate 5,000 kg or more) [refer to your State regulations to determine what is regulated]. Indicate types of universal waste managed at your site. If "Yes", mark all that apply.**

- a. Batteries ☐
- b. Pesticides ☐
- c. Mercury containing equipment ☐
- d. Lamps ☐
- e. Other (specify) _____ ☐
- f. Other (specify) _____ ☐
- g. Other (specify) _____ ☐

Y ☐ N ☒ **2. Destination Facility for Universal Waste**
Note: A hazardous waste permit may be required for this activity.

C. Used Oil Activities; Complete all parts 1-4.

Y ☐ N ☒ **1. Used Oil Transporter**
If "Yes", mark all that apply.
- ☐ a. Transporter
- ☐ b. Transfer Facility (at your site)

Y ☐ N ☒ **2. Used Oil Processor and/or Re-refiner**
If "Yes", mark all that apply.
- ☐ a. Processor
- ☐ b. Re-refiner

Y ☐ N ☒ **3. Off-Specification Used Oil Burner**

Y ☐ N ☒ **4. Used Oil Fuel Marketer**
If "Yes", mark all that apply.
- ☐ a. Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner
- ☐ b. Marketer Who First Claims the Used Oil Meets the Specifications

D. Eligible Academic Entities with Laboratories—Notification for opting into or withdrawing from managing laboratory hazardous wastes pursuant to 40 CFR Part 262 Subpart K

- ❖ You must check with your State to determine if you are eligible to manage laboratory hazardous wastes pursuant to 40 CFR Part 262 Subpart K

☐ 1. Opting into or currently operating under 40 CFR Part 262 Subpart K for the management of hazardous wastes in laboratories
See the item-by-item instructions for definitions of types of eligible academic entities. Mark all that apply:

- ☐ a. College or University
- ☐ b. Teaching Hospital that is owned by or has a formal written affiliation agreement with a college or university
- ☐ c. Non-profit Institute that is owned by or has a formal written affiliation agreement with a college or university

☐ 2. Withdrawing from 40 CFR Part 262 Subpart K for the management of hazardous wastes in laboratories

11. Description of Hazardous Waste

A. Waste Codes for Federally Regulated Hazardous Wastes. Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g., D001, D003, F007, U112). Use an additional page if more spaces are needed.

B. Waste Codes for State-Regulated (i.e., non-Federal) Hazardous Wastes. Please list the waste codes of the State-Regulated hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed.

12. Notification of Hazardous Secondary Material (HSM) Activity

Y ☐ N ☒ Are you notifying under 40 CFR 260.42 that you will begin managing, are managing, or will stop managing hazardous secondary material under 40 CFR 261.2(a)(2)(ii), 40 CFR 261.4(a)(23), (24), or (25)?

If "Yes", you must fill out the Addendum to the Site Identification Form: Notification for Managing Hazardous Secondary Material.

13. Comments

First Chemical operates a groundwater collection trench as part of a facility-wide groundwater corrective action in accordance with the site RCRA and HSWA permits. Impacted groundwater is collected, treated, and discharged to an on-site wastewater treatment system that is permitted under the Clean Water Act to discharge to the local POTW after pre-treatment. The impacted groundwater is regulated as "contaminated media," which may contain a hazardous waste and must be managed as a hazardous waste, but it is not counted as a hazardous waste for generator status purposes. Under EPA policy and regulations, units permitted under the Clean Water Act may be used for the treatment and disposal of contaminated groundwater, and are exempt from RCRA regulation. The surface impoundment identified by Process Code D83 in Item 6. above has been closed and is undergoing post-closure care. One additional NAICS Code for the facility is 325311.

First Chemical is currently permitted as an operating TSD due to RCRA permitted operating units consisting of 4 hazardous waste storage tanks and a hazardous waste incinerator. In 2021, the First Chemical Corporation ceased manufacturing operations and initiated closure of the permitted operating units. As we have discussed, the ownership of First Chemical Corporation recently changed and the new ownership will finalize closure activities of those RCRA operating units, and will conduct ongoing, long-term post closure care of the closed surface impoundment and management of the corrective action system in accordance with the permit.

The owner of the facility will continue to be First Chemical Corporation, which under its new ownership will be doing business as Oleo-X. The address for the facility will continue to be 1001 Industrial Road, Pascagoula, Mississippi 39581. Until such time as Chemours FC is no longer a co-permittee with First Chemical Corporation, compliance related information will continue to be delivered to Sebastian Bahr at Chemours FC in addition to First Chemical Corporation; contact information for Mr. Bahr is provided above. The on-site contact at the facility will continue to be Greg Hust (former First Chemical Plant Manager and now the Plant Manager for the First Chemical facility after the transaction. Mr. Hust's telephone number is 228-623-6380).

14. Certification. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations. For the RCRA Hazardous Waste Part A Permit Application, all owner(s) and operator(s) must sign (see 40 CFR 270.10(b) and 270.11).

Signature of legal owner, operator, or an authorized representative	Name and Official Title (type or print)	Date Signed (mm/dd/yyyy)
	Richard Recny, President	07/11/2022

EPA ID Number | M | S | D | 0 | 3 | 3 | 4 | 1 | 7 | 0 | 3 | 1 |

OMB#: 2050-0034; Expires 7/31/2012

United States Environmental Protection Agency

HARDOUS WASTE PERMIT INFORMATION FORM

1. Facility Permit Contact

First Name: Greg | **MI:** | **Last Name:** Hust

Contact Title: Plant Manager

Phone: 228-227-2626 | **Ext.:** | **Email:**

2. Facility Permit Contact Mailing Address

Street or P.O. Box: 1001 Industrial Road

City, Town, or Village:

State: MS

Country: USA | **Zip Code:**

3. Operator Mailing Address and Telephone Number

Street or P.O. Box: 1001 Industrial Road

City, Town, or Village: Pascagoula

State: MS | **Phone:** 609-221-8253

Country: USA | **Zip Code:** 39581

4. Facility Existence Date

Facility Existence Date (mm/dd/yyyy): 3/1/1989

5. Other Environmental Permits

A. Facility Type *(Enter code)*	B. Permit Number	C. Description
N	MSR110075	Baseline Storm Water Discharge
	3 1 1 2 2 5	(NAICS code)
	5 5 1 1 1 2	(NAICS code)
	3 2 5 1 2 0	(NAICS code)
	3 2 5 1 9 9	
R	MSD033417031	RCRA Permit (EPA portion)
N	MSP0903603	Water Pretreatment

6. Nature of Business:

Formerly produced cyclic organic intermediates. Manufacturing ceased 12/31/2020. Burning in on-site incinerator ended June 2021. Management of contaminated groundwater through Pretreatment permit and Discharge permit continues, as does management of storm water.

7. Process Codes and Design Capacities – Enter information in the Section on Form Page 3

A. PROCESS CODE – Enter the code from the list of process codes below that best describes each process to be used at the facility. If more lines are needed, attach a separate sheet of paper with the additional information. For "other" processes (i.e., D99, S99, T04 and X99), describe the process (including its design capacity) in the space provided in Item 8.

B. PROCESS DESIGN CAPACITY – For each code entered in Item 7.A; enter the capacity of the process.

1. **AMOUNT – Enter the amount. In a case where design capacity is not applicable (such as in a closure/post-closure or enforcement action) enter the total amount of waste for that process.**
2. **UNIT OF MEASURE – For each amount entered in Item 7.B(1), enter the code in Item 7.B(2) from the list of unit of measure codes below that describes the unit of measure used. Select only from the units of measure in this list.**

C. PROCESS TOTAL NUMBER OF UNITS – Enter the total number of units for each corresponding process code.

Process Code	Process	Appropriate Unit of Measure for Process Design Capacity
Disposal		
D79	Underground Injection Well Disposal	Gallons; Liters; Gallons Per Day; or Liters Per Day
D80	Landfill	Acre-feet; Hectares-meter; Acres; Cubic Meters; Hectares; Cubic Yards
D81	Land Treatment	Acres or Hectares
D82	Ocean Disposal	Gallons Per Day or Liters Per Day
D83	Surface Impoundment Disposal	Gallons; Liters; Cubic Meters; or Cubic Yards
D99	Other Disposal	Any Unit of Measure Listed Below
Storage		
S01	Container	Gallons; Liters; Cubic Meters; or Cubic Yards
S02	Tank Storage	Gallons; Liters; Cubic Meters; or Cubic Yards
S03	Waste Pile	Cubic Yards or Cubic Meters
S04	Surface Impoundment	Gallons; Liters; Cubic Meters; or Cubic Yards
S05	Drip Pad	Gallons; Liters; Cubic Meters; Hectares; or Cubic Yards
S06	Containment Building Storage	Cubic Yards or Cubic Meters
S99	Other Storage	Any Unit of Measure Listed Below
Treatment		
T01	Tank Treatment	Gallons Per Day; Liters Per Day
T02	Surface Impoundment	Gallons Per Day; Liters Per Day
T03	Incinerator	Short Tons Per Hour; Metric Tons Per Hour; Gallons Per Hour; Liters Per Hour; BTUs Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Gallons Per Day; Metric Tons Per Hour; or Million BTU Per Hour
T04	Other Treatment	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Short Tons Per Day; BTUs Per Hour; Gallons Per Day; Liters Per Hour; or Million BTU Per Hour
T80	Boiler	Gallons; Liters; Gallons Per Hour; Liters Per Hour; BTUs Per Hour; or Million BTU Per Hour
Treatment (Continued)		**(for T81 – T94)**
T81	Cement Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; BTU Per Hour; Liters Per Hour; Kilograms Per Hour; or Million BTU Per Hour
T82	Lime Kiln	
T83	Aggregate Kiln	
T84	Phosphate Kiln	
T85	Coke Oven	
T86	Blast Furnace	
T87	Smelting, Melting, or Refining Furnace	
T88	Titanium Dioxide Chloride Oxidation Reactor	
T89	Methane Reforming Furnace	
T90	Pulping Liquor Recovery Furnace	
T91	Combustion Device Used in the Recovery of Sulfur Values from Spent Sulfuric Acid	
T92	Halogen Acid Furnaces	
T93	Other Industrial Furnaces Listed in 40 CFR 260.10	
T94	Containment Building Treatment	Cubic Yards; Cubic Meters; Short Tons Per Hour; Gallons Per Hour; Liters Per Hour; BTU Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Metric Tons Per Day; Gallons Per Day; Liters Per Day; Metric Tons Per Hour; or Million BTU Per Hour
Miscellaneous (Subpart X)		
X01	Open Burning/Open Detonation	Any Unit of Measure Listed Below
X02	Mechanical Processing	Short Tons Per Hour; Metric Tons Per Hour; Short Tons Per Day; Metric Tons Per Day; Pounds Per Hour; Kilograms Per Hour; Gallons Per Hour; Liters Per Hour; or Gallons Per Day
X03	Thermal Unit	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; BTU Per Hour; or Million BTU Per Hour
X04	Geologic Repository	Cubic Yards; Cubic Meters; Acre-feet; Hectare-meter; Gallons; or Liters
X99	Other Subpart X	Any Unit of Measure Listed Below

Unit of Measure	Unit of Measure Code
Gallons	G
Gallons Per Hour	E
Gallons Per Day	U
Liters	L
Liters Per Hour	H
Liters Per Day	V
Short Tons Per Hour	D
Short Tons Per Day	N
Metric Tons Per Hour	W
Metric Tons Per Day	S
Pounds Per Hour	J
Kilograms Per Hour	X
Million BTU Per Hour	X
Cubic Yards	Y
Cubic Meters	C
Acres	B
Acre-feet	A
Hectares	Q
Hectare-meter	F
BTU Per Hour	I

7. Process Codes and Design Capacities (Continued)

EXAMPLE FOR COMPLETING Item 7 (shown in line number X-1 below): A facility has a storage tank, which can hold 533.788 gallons.

Line Number		A. Process Code (From list above)			B. PROCESS DESIGN CAPACITY		C. Process Total Number of Units	For Official Use Only					
					(1) Amount (Specify)	(2) Unit of Measure							
X	1	S	0	2	533.788	G	001						
	1												
	2												
	3												
	4												
	5												
	6												
	7												
	8												
	9												
1	0												
1	1												
1	2												
1	3												

Note: If you need to list more than 13 process codes, attach an additional sheet(s) with the information in the same format as above. Number the line sequentially, taking into account any lines that will be used for "other" process (i.e., D99, S99, T04, and X99) in Item 8.

8. Other Processes (Follow instructions from Item 7 for D99, S99, T04, and X99 process codes)

Line Number (Enter #s in sequence with Item 7)		A. Process Code (From list above)			B. PROCESS DESIGN CAPACITY		C. Process Total Number of Units	For Official Use Only					
					(1) Amount (Specify)	(2) Unit of Measure							
X	2	T	0	4	100.00	U	001						

9. Description of Hazardous Wastes - Enter Information in the Sections on Form Page 5

A. EPA HAZARDOUS WASTE NUMBER – Enter the four-digit number from 40 CFR, Part 261 Subpart D of each listed hazardous waste you will handle. For hazardous wastes which are not listed in 40 CFR, Part 261 Subpart D, enter the four-digit number(s) from 40 CFR Part 261, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

B. ESTIMATED ANNUAL QUANTITY – For each listed waste entered in Item 9.A, estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in Item 9.A, estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.

C. UNIT OF MEASURE – For each quantity entered in Item 9.B, enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure, taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:

For listed hazardous waste: For each listed hazardous waste entered in Item 9.A, select the code(s) from the list of process codes contained in Items 7.A and 8.A on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all listed hazardous wastes.

For non-listed waste: For each characteristic or toxic contaminant entered in Item 9.A, select the code(s) from the list of process codes contained in Items 7.A and 8.A on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

NOTE: THREE SPACES ARE PROVIDED FOR ENTERING PROCESS CODES. IF MORE ARE NEEDED:

1. **Enter the first two as described above.**
2. **Enter "000" in the extreme right box of Item 9.D(1).**
3. **Use additional sheet, enter line number from previous sheet, and enter additional code(s) in Item 9.E.**

2. PROCESS DESCRIPTION: If code is not listed for a process that will be used, describe the process in Item 9.D(2) or in Item 9.E(2).

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER – Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. **Select one of the EPA Hazardous Waste Numbers and enter it in Item 9.A. On the same line complete Items 9.B, 9.C, and 9.D by estimating the total annual quantity of the waste and describing all the processes to be used to store, treat, and/or dispose of the waste.**
2. **In Item 9.A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In Item 9.D.2 on that line enter "included with above" and make no other entries on that line.**
3. **Repeat step 2 for each EPA Hazardous Waste Number that can be used to describe the hazardous waste.**

EXAMPLE FOR COMPLETING Item 9 (shown in line numbers X-1, X-2, X-3, and X-4 below) – A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operations. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter code)	D. PROCESSES									
								(1) PROCESS CODES (Enter Code)									(2) PROCESS DESCRIPTION (If code is not entered in 9.D(1))
X	1	K	0	5	4	900	P	T	0	3	D	8	0				
X	2	D	0	0	2	400	P	T	0	3	D	8	0				
X	3	D	0	0	1	100	P	T	0	3	D	8	0				
X	4	D	0	0	2												Included With Above

9. Description of Hazardous Wastes *(Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)*

Line Number		A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter code)	D. PROCESSES	
					(1) PROCESS CODES (Enter Code)	(2) PROCESS DESCRIPTION (If code is not entered in 9.D(1))
	1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
1	0					
1	1					
1	2					
1	3					
1	4					
1	5					
1	6					
1	7					
1	8					
1	9					
2	0					
2	1					
2	2					
2	3					
2	4					
2	5					
2	6					
2	7					
2	8					
2	9					
3	0					
3	1					
3	2					
3	3					
3	4					
3	5					
3	6					

9. Description of Hazardous Wastes ***(Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)***

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter code)	D. PROCESSES									
								(1) PROCESS CODES (Enter Code)									(2) PROCESS DESCRIPTION (If code is not entered in 9.D.1)

10. Map

Attach to this application a topographical map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all spring, rivers, and other surface water bodies in this map area. See instructions for precise requirements.

11. Facility Drawing

All existing facilities must include a scale drawing of the facility (see instructions for more detail).

12. Photographs

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment, and disposal areas; and sites of future storage, treatment, or disposal areas (see instructions for more detail).

13. Comments

Groundwater corrective action has been implemented at the facility to reduce and prevent further migration of contamination caused by past operations. The groundwater corrective action is site-wide encompassing impacts from a former RCRA regulated unit, Pond 3, and a HSWA regulated Solid Waste Management Unit (SWMU), SWMU 31 Sumps-Contaminated Southeastern Corner. The implemented groundwater remediation technology consists of operating a groundwater recovery trench (GRT) located on the eastern, hydraulically downgradient, side of the facility. The GRT extracts groundwater over a distance of approximately 525 feet. Extracted groundwater is treated at an air stripper with the treated water discharged to the City of Pascagoula's publicly owned treatment works via a pre-treatment permit.

Pond 3 has been certified closed and capped in accordance with an approved closure plan. Post-closure care consists of maintaining the integrity and effectiveness of the final cover, including making repairs to the cap, as necessary, to correct the effects of settling, subsidence, erosion, and other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover.

As we have discussed, the owner of the facility after the transaction will continue to be First Chemical LLC dba Oleo-X, which will be under new ownership and will operate as First Chemical LLC d/b/a Oleo-X. The address for the facility will continue to be 1001 Industrial Road, Pascagoula, Mississippi 39581. Until such time as Chemours FC is no longer a co-permittee with First Chemical Corporation, all correspondence should be copied to the following:

Sebastian Bahr
Remediation Project Manager
Chemours FC
1007 Market Street
Wilmington, DE 19801
Sebastian.Bahr@chemours.com

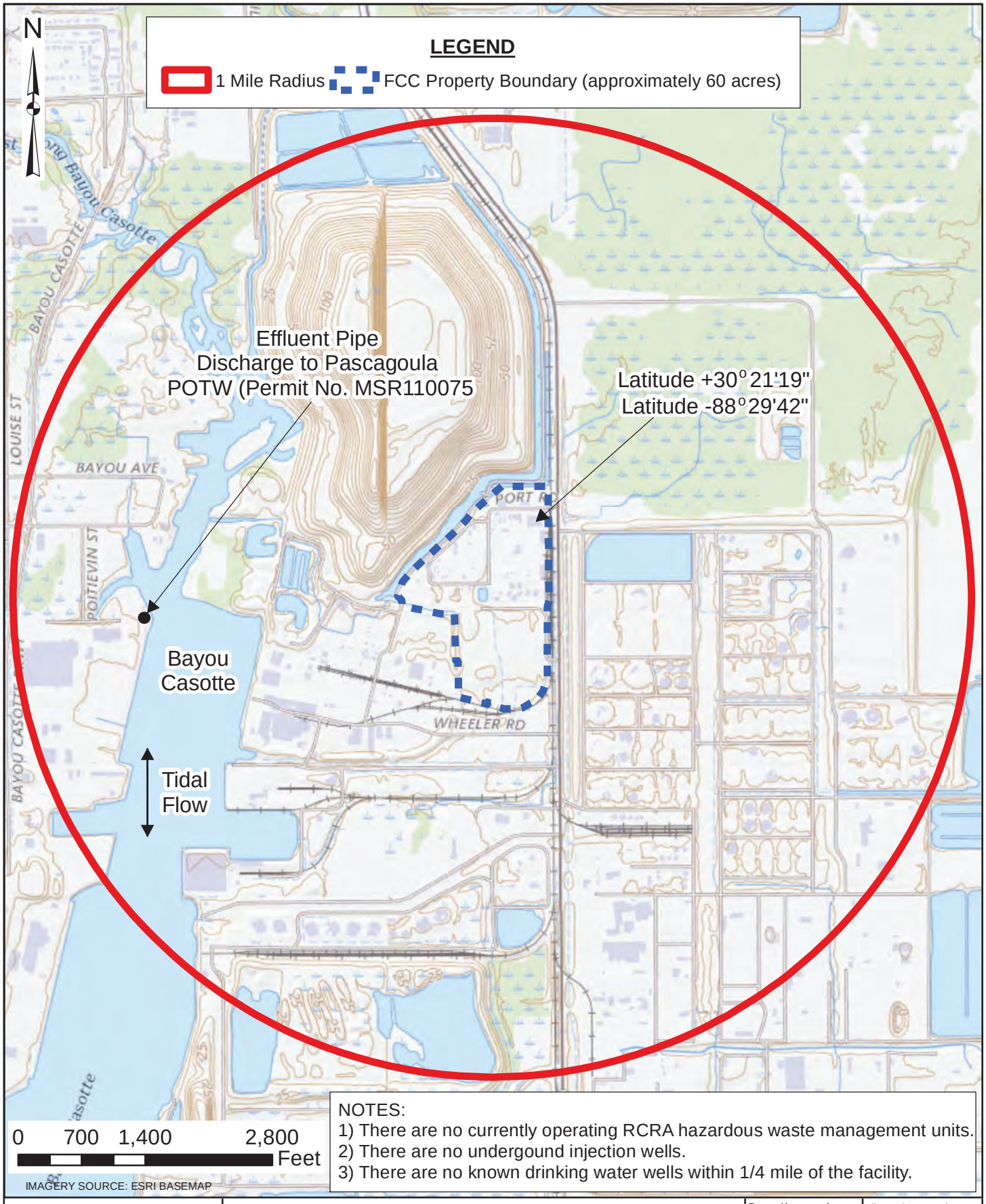
Richard Recny
President
First Chemical LLC
55 Fifth Avenue, 15th Floor
New York, NY 10003
rrecny@timeequities.com

Comments - Continued

13. Comments

Al Nesheiwat
Managing Principal
Sustainable Development Inc.
166 Woodside Avenue
West Harrison, NY 10604
alnesheiwat@sustainable-development-inc.com

Nicholas W. van Aelstyn
Partner
Sheppard Mullin
Four Embarcadero Center, 17th Floor
San Francisco, CA 94111
nvanaelstyn@sheppardmullin.com



NOTES:
1) There are no currently operating RCRA hazardous waste management units.
2) There are no undergound injection wells.
3) There are no known drinking water wells within 1/4 mile of the facility.

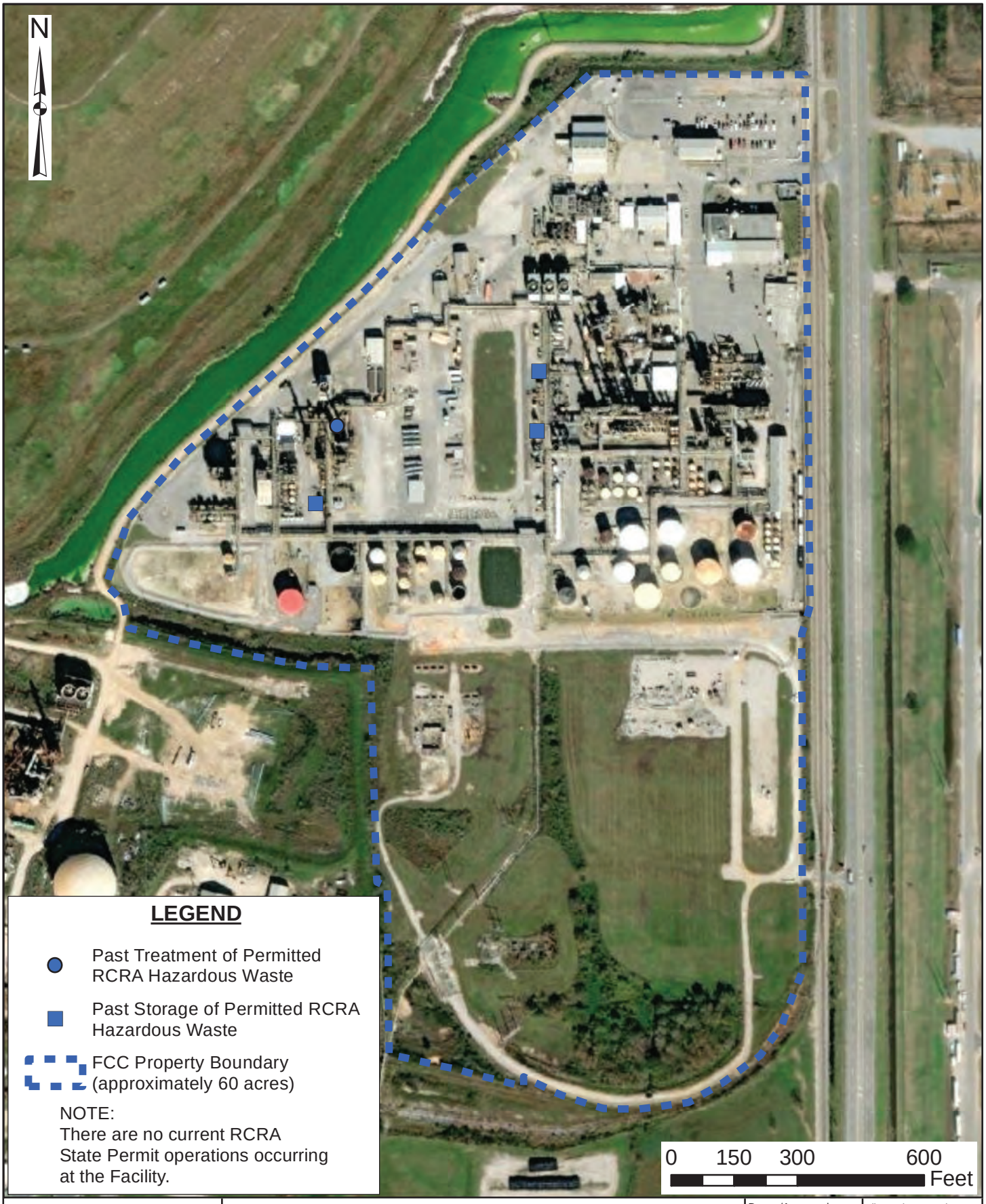
PARSONS
Parsons Environment & Infrastructure

2200 West Loop South
Suite 200
Houston, Texas 77027

Title:
Site Map
First Chemical Corporation
RCRA Part A Permit Application
Permit No. MSD 033 417 031

Drawn/Approved: RAH/RLL	File Project Number: 452819.05000
Date: 4/15/2022	Figure Number: ITEM 10
Revised:	
File Name: ITEM8_SITE_MAP	

Document Path: F:\GIS\Pascagoula\Project_Figures\RCRA Part B Application 2022\ITEM8_SITE_MAP.mxd



Document Path: F:\GIS\Pascagoula\Project_Figures\RCRA Part B Application 2022\ITEM9_FACILITY_MAP_04142022.mxd

PARSONS
Parsons Environment & Infrastructure

2200 West Loop South
Suite 200
Houston, Texas 77027

Title:

Facility Drawing
First Chemical Corporation
RCRA Part A Application
Permit No. MSD 033 417 031

Drawn/Approved: RAH/RLL	File Project Number: 452819.05000
Date: 4/14/2022	Figure Number: ITEM 11
Revised:	
File Name: ITEM9_FACILITY_MAP_04142022	

BUTLER | SNOW

August 29, 2022

VIA HAND DELIVERY

MDEQ
Attn: Krista Caron
515 E. Amite Street
Jackson, MS 39201

Re: RCRA Part A Application

Dear Krista:

Enclosed please find the original signature page for the RCRA Part A application for the former First Chemical facility in Pascagoula. Please append this to the application submitted by Oleo-X. If you have any questions, please feel free to call me.

Sincerely yours,

BUTLER SNOW LLP

John A. Brunini

JB:bgk
Enclosure

65473769.v1

RECEIVED
AUG 29 2022
DEPT. OF ENVIRONMENTAL QUALITY

Post Office Box 6010
Ridgeland, MS 39158-6010

JOHN A. BRUNINI
4447
John.Brunini@butlersnow.com

Suite 1400
1020 Highland Colony Parkway
Ridgeland, Mississippi 39157

T 601.948.5711 • F 601.985.4500 • www.butlersnow.com

BUTLER SNOW LLP

OMB# 2050-0024; Expires 11/30/2011

SEND COMPLETED FORM TO: The Appropriate State or Regional Office.

United States Environmental Protection Agency
RCRA SUBTITLE C SITE IDENTIFICATION FORM

1. Reason for Submittal (MARK ALL BOX(ES) THAT APPLY)

Reason for Submittal:

- ☐ To provide an Initial Notification (first time submitting site identification information / to obtain an EPA ID number for this location)
- ☐ To provide a Subsequent Notification (to update site identification information for this location)
- ☐ As a component of a First RCRA Hazardous Waste Part A Permit Application
- ☒ As a component of a Revised RCRA Hazardous Waste Part A Permit Application (Amendment #_____)
- ☐ As a component of the Hazardous Waste Report (If marked, see sub-bullet below)
  - ☐ Site was a TSD facility and/or generator of ≥1,000 kg of hazardous waste, >1 kg of acute hazardous waste, or >100 kg of acute hazardous waste spill cleanup in one or more months of the report year (or State equivalent LQG regulations)

2. Site EPA ID Number

EPA ID Number: M S D 0 3 3 4 1 7 0 3 1

3. Site Name

Name: First Chemical Corporation d/b/a Oleo-X

4. Site Location Information

Street Address: 1001 Industrial Road

City, Town, or Village: | County: Jackson

State: MS | Country: USA | Zip Code:

5. Site Land Type

☒ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

6. NAICS Code(s) for the Site (at least 5-digit codes)

A. 3 2 5 1 9 0 | C. 3 2 5 1 2 0

B. 3 2 5 9 8 8 | D. 3 2 5 1 9 9

7. Site Mailing Address

Street or P.O. Box: 1001 Industrial Road

City, Town, or Village: Pascagoula

State: MS | Country: USA | Zip Code: 39581

8. Site Contact Person

First Name: Greg | MI: | Last: Hust

Title: Plant Manager

Street or P.O. Box: 1001 Industrial Road

City, Town or Village: Pascagoula

State: MS | Country: USA | Zip Code: 39581

Email:

Phone: 228-227-2626 | Ext.: | Fax:

9. Legal Owner and Operator of the Site

A. Name of Site's Legal Owner: First Chemical Corporation | Date Became Owner: 07/01/2015

Owner Type: ☒ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

Street or P.O. Box: 1001 Industrial Road

City, Town, or Village: Pascagoula | Phone: 609-221-8253

State: MS | Country: USA | Zip Code: 39581

B. Name of Site's Operator: First Chemical Corporation d/b/a Oleo-X | Date Became Operator: 07/01/2015

Operator Type: ☒ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

EPA ID Number M S D 0 3 3 4 1 7 0 3 1

OMB#: 2050-0024; Expires 11/30/2011

10. Type of Regulated Waste Activity (at your site)
Mark "Yes" or "No" for all current activities (as of the date submitting the form); complete any additional boxes as instructed.

A. Hazardous Waste Activities; Complete all parts 1-7.

Y ☐ N ☒ **1. Generator of Hazardous Waste**
If "Yes", mark only one of the following – a, b, or c.

- ☐ a. LQG: Generates, in any calendar month, 1,000 kg/mo (2,200 lbs./mo.) or more of hazardous waste; or Generates, in any calendar month, or accumulates at any time, more than 1 kg/mo (2.2 lbs./mo) of acute hazardous waste; or Generates, in any calendar month, or accumulates at any time, more than 100 kg/mo (220 lbs./mo) of acute hazardous spill cleanup material.
- ☐ b. SQG: 100 to 1,000 kg/mo (220 – 2,200 lbs./mo) of non-acute hazardous waste.
- ☐ c. CESQG: Less than 100 kg/mo (220 lbs./mo) of non-acute hazardous waste.

If "Yes" above, indicate other generator activities.

Y ☐ N ☒ d. Short-Term Generator (generate from a short-term or one-time event and not from on-going processes). If "Yes", provide an explanation in the Comments section.

Y ☐ N ☒ e. United States Importer of Hazardous Waste

Y ☐ N ☒ f. Mixed Waste (hazardous and radioactive) Generator

Y ☐ N ☒ **2. Transporter of Hazardous Waste**
If "Yes", mark all that apply.
- ☐ a. Transporter
- ☐ b. Transfer Facility (at your site)

Y ☐ N ☒ **3. Treater, Storer, or Disposer of Hazardous Waste** Note: A hazardous waste permit is required for these activities.

Y ☐ N ☒ **4. Recycler of Hazardous Waste**

Y ☐ N ☐ **5. Exempt Boiler and/or Industrial Furnace**
If "Yes", mark all that apply.
- ☐ a. Small Quantity On-site Burner Exemption
- ☐ b. Smelting, Melting, and Refining Furnace Exemption

Y ☐ N ☒ **6. Underground Injection Control**

Y ☐ N ☒ **7. Receives Hazardous Waste from Off-site**

B. Universal Waste Activities; Complete all parts 1-2.

Y ☐ N ☒ **1. Large Quantity Handler of Universal Waste (you accumulate 5,000 kg or more) [refer to your State regulations to determine what is regulated]. Indicate types of universal waste managed at your site. If "Yes", mark all that apply.**

- a. Batteries ☐
- b. Pesticides ☐
- c. Mercury containing equipment ☐
- d. Lamps ☐
- e. Other (specify) _____ ☐
- f. Other (specify) _____ ☐
- g. Other (specify) _____ ☐

Y ☐ N ☒ **2. Destination Facility for Universal Waste**
Note: A hazardous waste permit may be required for this activity.

C. Used Oil Activities; Complete all parts 1-4.

Y ☐ N ☒ **1. Used Oil Transporter**
If "Yes", mark all that apply.
- ☐ a. Transporter
- ☐ b. Transfer Facility (at your site)

Y ☐ N ☒ **2. Used Oil Processor and/or Re-refiner**
If "Yes", mark all that apply.
- ☐ a. Processor
- ☐ b. Re-refiner

Y ☐ N ☒ **3. Off-Specification Used Oil Burner**

Y ☐ N ☒ **4. Used Oil Fuel Marketer**
If "Yes", mark all that apply.
- ☐ a. Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner
- ☐ b. Marketer Who First Claims the Used Oil Meets the Specifications

D. **Eligible Academic Entities with Laboratories—Notification for opting into or withdrawing from managing laboratory hazardous wastes pursuant to 40 CFR Part 262 Subpart K**

- You must check with your State to determine if you are eligible to manage laboratory hazardous wastes pursuant to 40 CFR Part 262 Subpart K

☐ 1. Opting into or currently operating under 40 CFR Part 262 Subpart K for the management of hazardous wastes in laboratories **See the item-by-item instructions for definitions of types of eligible academic entities. Mark all that apply:**

- ☐ a. College or University
- ☐ b. Teaching Hospital that is owned by or has a formal written affiliation agreement with a college or university
- ☐ c. Non-profit Institute that is owned by or has a formal written affiliation agreement with a college or university

☐ 2. Withdrawing from 40 CFR Part 262 Subpart K for the management of hazardous wastes in laboratories

11. **Description of Hazardous Waste**

A. **Waste Codes for Federally Regulated Hazardous Wastes.** Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g., D001, D003, F007, U112). Use an additional page if more spaces are needed.

B. **Waste Codes for State-Regulated (i.e., non-Federal) Hazardous Wastes.** Please list the waste codes of the State-Regulated hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed.

EPA ID Number M S D 0 3 3 4 1 7 0 3 1 OMB#: 2050-0024; Expires 11/30/2011

12. Notification of Hazardous Secondary Material (HSM) Activity

Y ☐ N ☒ Are you notifying under 40 CFR 260.42 that you will begin managing, are managing, or will stop managing hazardous secondary material under 40 CFR 261.2(a)(2)(ii), 40 CFR 261.4(a)(23), (24), or (25)?

If "Yes", you must fill out the Addendum to the Site Identification Form: Notification for Managing Hazardous Secondary Material.

13. Comments

First Chemical operates a groundwater collection trench as part of a facility-wide groundwater corrective action in accordance with the site RCRA and HSWA permits. Impacted groundwater is collected, treated, and discharged to an on-site wastewater treatment system that is permitted under the Clean Water Act to discharge to the local POTW after pre-treatment. The impacted groundwater is regulated as "contaminated media," which may contain a hazardous waste and must be managed as a hazardous waste, but it is not counted as a hazardous waste for generator status purposes. Under EPA policy and regulations, units permitted under the Clean Water Act may be used for the treatment and disposal of contaminated groundwater, and are exempt from RCRA regulation. The surface impoundment identified by Process Code D83 in Item 6. above has been closed and is undergoing post-closure care. One additional NAICS Code for the facility is 325311.

First Chemical is currently permitted as an operating TSD due to RCRA permitted operating units consisting of 4 hazardous waste storage tanks and a hazardous waste incinerator. In 2021, the First Chemical Corporation ceased manufacturing operations and initiated closure of the permitted operating units. As we have discussed, the ownership of First Chemical Corporation recently changed and the new ownership will finalize closure activities of those RCRA operating units, and will conduct ongoing, long-term post-closure care of the closed surface impoundment and management of the corrective action system in accordance with the permit.

The owner of the facility will continue to be First Chemical Corporation, which under its new ownership will be doing business as Oleo-X. The address for the facility will continue to be 1001 Industrial Road, Pascagoula, Mississippi 39581. Until such time as Chemours FC is no longer a co-permittee with First Chemical Corporation, compliance related information will continue to be delivered to Sebastian Bahr at Chemours FC in addition to First Chemical Corporation; contact information for Mr. Bahr is provided above. The on-site contact at the facility will continue to be Greg Hust (former First Chemical Plant Manager and now the Plant Manager for the First Chemical facility after the transaction. Mr. Hust's telephone number is 228-623-6380).

14. Certification. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations. For the RCRA Hazardous Waste Part A Permit Application, all owner(s) and operator(s) must sign (see 40 CFR 270.10(b) and 270.11).

Signature of legal owner, operator, or an authorized representative	Name and Official Title (type or print)	Date Signed (mm/dd/yyyy)
	Richard Recny, President	07/11/2022
	SVP, Chief Development Office	07/22/2022

EPA ID Number | M | S | D | 0 | 3 | 3 | 4 | 1 | 7 | 0 | 3 | 1 |

OMB#: 2050-0034; Expires 7/31/2012

United States Environmental Protection Agency

HARDOUS WASTE PERMIT INFORMATION FORM

1. Facility Permit Contact	First Name: Greg	MI:	Last Name: Hust
	Contact Title: Plant Manager		
	Phone: 228-227-2626	Ext.:	Email:
2. Facility Permit Contact Mailing Address	Street or P.O. Box: 1001 Industrial Road		
	City, Town, or Village:		
	State: MS		
	Country: USA		Zip Code:
3. Operator Mailing Address and Telephone Number	Street or P.O. Box: 1001 Industrial Road		
	City, Town, or Village: Pascagoula		
	State: MS		Phone: 609-221-8253
	Country: USA		Zip Code: 39581
4. Facility Existence Date	Facility Existence Date (mm/dd/yyyy): 3/1/1989		

5. Other Environmental Permits

A. Facility Type (Enter code)	B. Permit Number	C. Description
E	128 0 - 00022	Air Title V Operating
N	MSR11 00 75	Baseline Storm Water Discharge
	3 2 5 1 9 0	(NAICS code)
	3 2 5 9 8 8	(NAICS code)
	3 2 5 1 2 0	(NAICS code)
	3 2 5 1 9 9	
R	MSD 0 3 3 4 1 7 0 3 1	RCRA Permit (EPA portion)
N	MSP 0 9 0 3 6 0	Water Pretreatment

6. Nature of Business:

Formerly produced cyclic organic intermediates. Manufacturing ceased 12/31/2020. Burning in on-site incinerator ended June 2021. Management of contaminated groundwater through Pretreatment permit and Discharge permit continues, as does management of storm water.

7. Process Codes and Design Capacities – Enter information in the Section on Form Page 3

A. PROCESS CODE – Enter the code from the list of process codes below that best describes each process to be used at the facility. If more lines are needed, attach a separate sheet of paper with the additional information. For "other" processes (i.e., D99, S99, T04 and X99), describe the process (including its design capacity) in the space provided in Item 8.

B. PROCESS DESIGN CAPACITY – For each code entered in Item 7.A; enter the capacity of the process.

1. AMOUNT – Enter the amount. In a case where design capacity is not applicable (such as in a closure/post-closure or enforcement action) enter the total amount of waste for that process.
2. UNIT OF MEASURE – For each amount entered in Item 7.B(1), enter the code in Item 7.B(2) from the list of unit of measure codes below that describes the unit of measure used. Select only from the units of measure in this list.

C. PROCESS TOTAL NUMBER OF UNITS – Enter the total number of units for each corresponding process code.

Process Code	Process	Appropriate Unit of Measure for Process Design Capacity
Disposal		
D79	Underground Injection Well Disposal	Gallons; Liters; Gallons Per Day; or Liters Per Day
D80	Landfill	Acre-feet; Hectares-meter; Acres; Cubic Meters; Hectares; Cubic Yards
D81	Land Treatment	Acres or Hectares
D82	Ocean Disposal	Gallons Per Day or Liters Per Day
D83	Surface Impoundment Disposal	Gallons; Liters; Cubic Meters; or Cubic Yards
D99	Other Disposal	Any Unit of Measure Listed Below
Storage		
S01	Container	Gallons; Liters; Cubic Meters; or Cubic Yards
S02	Tank Storage	Gallons; Liters; Cubic Meters; or Cubic Yards
S03	Waste Pile	Cubic Yards or Cubic Meters
S04	Surface Impoundment	Gallons; Liters; Cubic Meters; or Cubic Yards
S05	Drip Pad	Gallons; Liters; Cubic Meters; Hectares; or Cubic Yards
S06	Containment Building Storage	Cubic Yards or Cubic Meters
S99	Other Storage	Any Unit of Measure Listed Below
Treatment		
T01	Tank Treatment	Gallons Per Day; Liters Per Day
T02	Surface Impoundment	Gallons Per Day; Liters Per Day
T03	Incinerator	Short Tons Per Hour; Metric Tons Per Hour; Gallons Per Hour; Liters Per Hour; BTUs Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Gallons Per Day; Metric Tons Per Hour; or Million BTU Per Hour
T04	Other Treatment	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Short Tons Per Day; BTUs Per Hour; Gallons Per Day; Liters Per Hour; or Million BTU Per Hour
T80	Boiler	Gallons; Liters; Gallons Per Hour; Liters Per Hour; BTUs Per Hour; or Million BTU Per Hour
Treatment (Continued)		(for T81 – T94)
T81	Cement Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; BTU Per Hour; Liters Per Hour; Kilograms Per Hour; or Million BTU Per Hour
T82	Lime Kiln	
T83	Aggregate Kiln	
T84	Phosphate Kiln	
T85	Coke Oven	
T86	Blast Furnace	
T87	Smelting, Melting, or Refining Furnace	
T88	Titanium Dioxide Chloride Oxidation Reactor	
T89	Methane Reforming Furnace	
T90	Pulping Liquor Recovery Furnace	
T91	Combustion Device Used in the Recovery of Sulfur Values from Spent Sulfuric Acid	
T92	Halogen Acid Furnaces	
T93	Other Industrial Furnaces Listed in 40 CFR 260.10	
T94	Containment Building Treatment	Cubic Yards; Cubic Meters; Short Tons Per Hour; Gallons Per Hour; Liters Per Hour; BTU Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Metric Tons Per Day; Gallons Per Day; Liters Per Day; Metric Tons Per Hour; or Million BTU Per Hour
Miscellaneous (Subpart X)		
X01	Open Burning/Open Detonation	Any Unit of Measure Listed Below
X02	Mechanical Processing	Short Tons Per Hour; Metric Tons Per Hour; Short Tons Per Day; Metric Tons Per Day; Pounds Per Hour; Kilograms Per Hour; Gallons Per Hour; Liters Per Hour; or Gallons Per Day
X03	Thermal Unit	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; BTU Per Hour; or Million BTU Per Hour
X04	Geologic Repository	Cubic Yards; Cubic Meters; Acre-feet; Hectare-meter; Gallons; or Liters
X99	Other Subpart X	Any Unit of Measure Listed Below

Unit of Measure	Unit of Measure Code
Gallons	G
Gallons Per Hour	E
Gallons Per Day	U
Liters	L
Liters Per Hour	H
Liters Per Day	V
Short Tons Per Hour	D
Short Tons Per Day	N
Metric Tons Per Hour	W
Metric Tons Per Day	S
Pounds Per Hour	J
Kilograms Per Hour	X
Million BTU Per Hour	X
Cubic Yards	Y
Cubic Meters	C
Acres	B
Acre-feet	A
Hectares	Q
Hectare-meter	F
BTU Per Hour	I

EPA ID Number | M | S | D | 0 | 3 | 3 | 4 | 1 | 7 | 0 | 3 | 1 |

OMB#: 2050-0034; Expires 7/31/2012

7. Process Codes and Design Capacities (Continued)

EXAMPLE FOR COMPLETING Item 7 (shown in line number X-1 below): A facility has a storage tank, which can hold 533.788 gallons.

Line Number		A. Process Code (From list above)			B. PROCESS DESIGN CAPACITY		C. Process Total Number of Units	For Official Use Only
					(1) Amount (Specify)	(2) Unit of Measure		
X	1	S	0	2	533.788	G	001	
	1							
	2							
	3							
	4							
	5							
	6							
	7							
	8							
	9							
1	0							
1	1							
1	2							
1	3							

Note: If you need to list more than 13 process codes, attach an additional sheet(s) with the information in the same format as above. Number the line sequentially, taking into account any lines that will be used for "other" process (i.e., D99, S99, T04, and X99) in Item 8.

8. Other Processes (Follow instructions from Item 7 for D99, S99, T04, and X99 process codes)

Line Number (Enter #s in sequence with Item 7)		A. Process Code (From list above)			B. PROCESS DESIGN CAPACITY		C. Process Total Number of Units	For Official Use Only
					(1) Amount (Specify)	(2) Unit of Measure		
X	2	T	0	4	100.00	U	001	

9. Description of Hazardous Wastes - Enter Information in the Sections on Form Page 5

A. EPA HAZARDOUS WASTE NUMBER – Enter the four-digit number from 40 CFR, Part 261 Subpart D of each listed hazardous waste you will handle. For hazardous wastes which are not listed in 40 CFR, Part 261 Subpart D, enter the four-digit number(s) from 40 CFR Part 261, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

B. ESTIMATED ANNUAL QUANTITY – For each listed waste entered in Item 9.A, estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in Item 9.A, estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.

C. UNIT OF MEASURE – For each quantity entered in Item 9.B, enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure, taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:

For listed hazardous waste: For each listed hazardous waste entered in Item 9.A, select the code(s) from the list of process codes contained in Items 7.A and 8.A on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all listed hazardous wastes.

For non-listed waste: For each characteristic or toxic contaminant entered in Item 9.A, select the code(s) from the list of process codes contained in Items 7.A and 8.A on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

NOTE: THREE SPACES ARE PROVIDED FOR ENTERING PROCESS CODES. IF MORE ARE NEEDED:

1. Enter the first two as described above.
2. Enter "000" in the extreme right box of Item 9.D(1).
3. Use additional sheet, enter line number from previous sheet, and enter additional code(s) in Item 9.E.

2. PROCESS DESCRIPTION: If code is not listed for a process that will be used, describe the process in Item 9.D(2) or in Item 9.E(2).

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER – Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. Select one of the EPA Hazardous Waste Numbers and enter it in Item 9.A. On the same line complete Items 9.B, 9.C, and 9.D by estimating the total annual quantity of the waste and describing all the processes to be used to store, treat, and/or dispose of the waste.
2. In Item 9.A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In Item 9.D.2 on that line enter "included with above" and make no other entries on that line.
3. Repeat step 2 for each EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING Item 9 (shown in line numbers X-1, X-2, X-3, and X-4 below) – A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operations. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter code)	D. PROCESSES									
								(1) PROCESS CODES (Enter Code)									(2) PROCESS DESCRIPTION (If code is not entered in 9.D(1))
X	1	K	0	5	4	900	P	T	0	3	D	8	0				
X	2	D	0	0	2	400	P	T	0	3	D	8	0				
X	3	D	0	0	1	100	P	T	0	3	D	8	0				
X	4	D	0	0	2												Included With Above

EPA ID Number | M | S | D | 0 | 3 | 3 | 4 | 1 | 7 | 0 | 3 | 1 |

9. Description of Hazardous Wastes *(Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)*

Line Number		A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter code)	D. PROCESSES	
					(1) PROCESS CODES (Enter Code)	(2) PROCESS DESCRIPTION (If code is not entered in 9.D(1))
	1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
1	0					
1	1					
1	2					
1	3					
1	4					
1	5					
1	6					
1	7					
1	8					
1	9					
2	0					
2	1					
2	2					
2	3					
2	4					
2	5					
2	6					
2	7					
2	8					
2	9					
3	0					
3	1					
3	2					
3	3					
3	4					
3	5					
3	6					

EPA ID Number | M | S | D | 0 | 3 | 3 | 4 | 1 | 7 | 0 | 3 | 1 | OMB#: 2050-0034; Expires 7/31/2012

9. Description of Hazardous Wastes *(Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)*

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter code)	D. PROCESSES (1) PROCESS CODES (Enter Code)									D. PROCESSES (2) PROCESS DESCRIPTION (If code is not entered in 9.D.1)

10. Map

Attach to this application a topographical map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all spring, rivers, and other surface water bodies in this map area. See instructions for precise requirements.

11. Facility Drawing

All existing facilities must include a scale drawing of the facility (see instructions for more detail).

12. Photographs

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment, and disposal areas; and sites of future storage, treatment, or disposal areas (see instructions for more detail).

13. Comments

Groundwater corrective action has been implemented at the facility to reduce and prevent further migration of contamination caused by past operations. The groundwater corrective action is site-wide encompassing impacts from a former RCRA regulated unit, Pond 3, and a HSWA regulated Solid Waste Management Unit (SWMU), SWMU 31 Sumps-Contaminated Southeastern Corner. The implemented groundwater remediation technology consists of operating a groundwater recovery trench (GRT) located on the eastern, hydraulically downgradient, side of the facility. The GRT extracts groundwater over a distance of approximately 525 feet. Extracted groundwater is treated at an air stripper with the treated water discharged to the City of Pascagoula's publicly owned treatment works via a pre-treatment permit.

Pond 3 has been certified closed and capped in accordance with an approved closure plan. Post-closure care consists of maintaining the integrity and effectiveness of the final cover, including making repairs to the cap, as necessary, to correct the effects of settling, subsidence, erosion, and other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover.

As we have discussed, the owner of the facility after the transaction will continue to be First Chemical Corporation, which will be under new ownership and will operate as First Chemical Corporation d/b/a Oleo-X. The address for the facility will continue to be 1001 Industrial Road, Pascagoula, Mississippi 39581. Until such time as Chemours FC is no longer a co-permittee with First Chemical Corporation, all correspondence should be copied to the following:

Sebastian Bahr
Remediation Project Manager
Chemours FC
1007 Market Street
Wilmington, DE 19801
Sebastian.Bahr@chemours.com

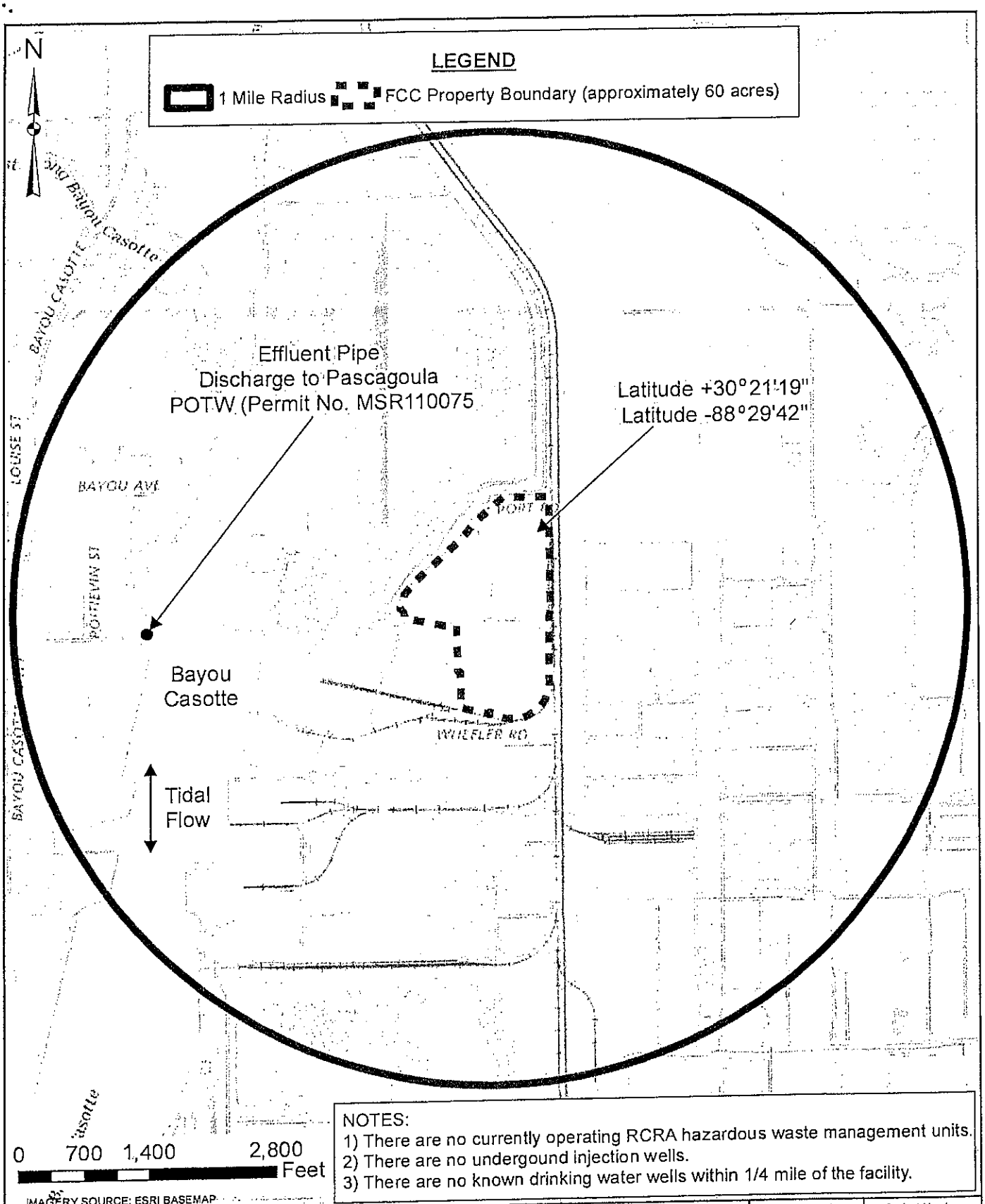
Richard Recny
President
First Chemical Corporation
55 Fifth Avenue, 15th Floor
New York, NY 10003
rrecny@timeequities.com

Comments - Continued

13. Comments

Al Nesheiwat
Managing Principal
Sustainable Development Inc.
166 Woodside Avenue
West Harrison, NY 10604
alnesheiwat@sustainable-development-inc.com

Nicholas W. van Aelstyn
Partner
Sheppard Mullin
Four Embarcadero Center, 17th Floor
San Francisco, CA 94111
nvanaelstyn@sheppardmullin.com



NOTES:
1) There are no currently operating RCRA hazardous waste management units.
2) There are no undergound injection wells.
3) There are no known drinking water wells within 1/4 mile of the facility.

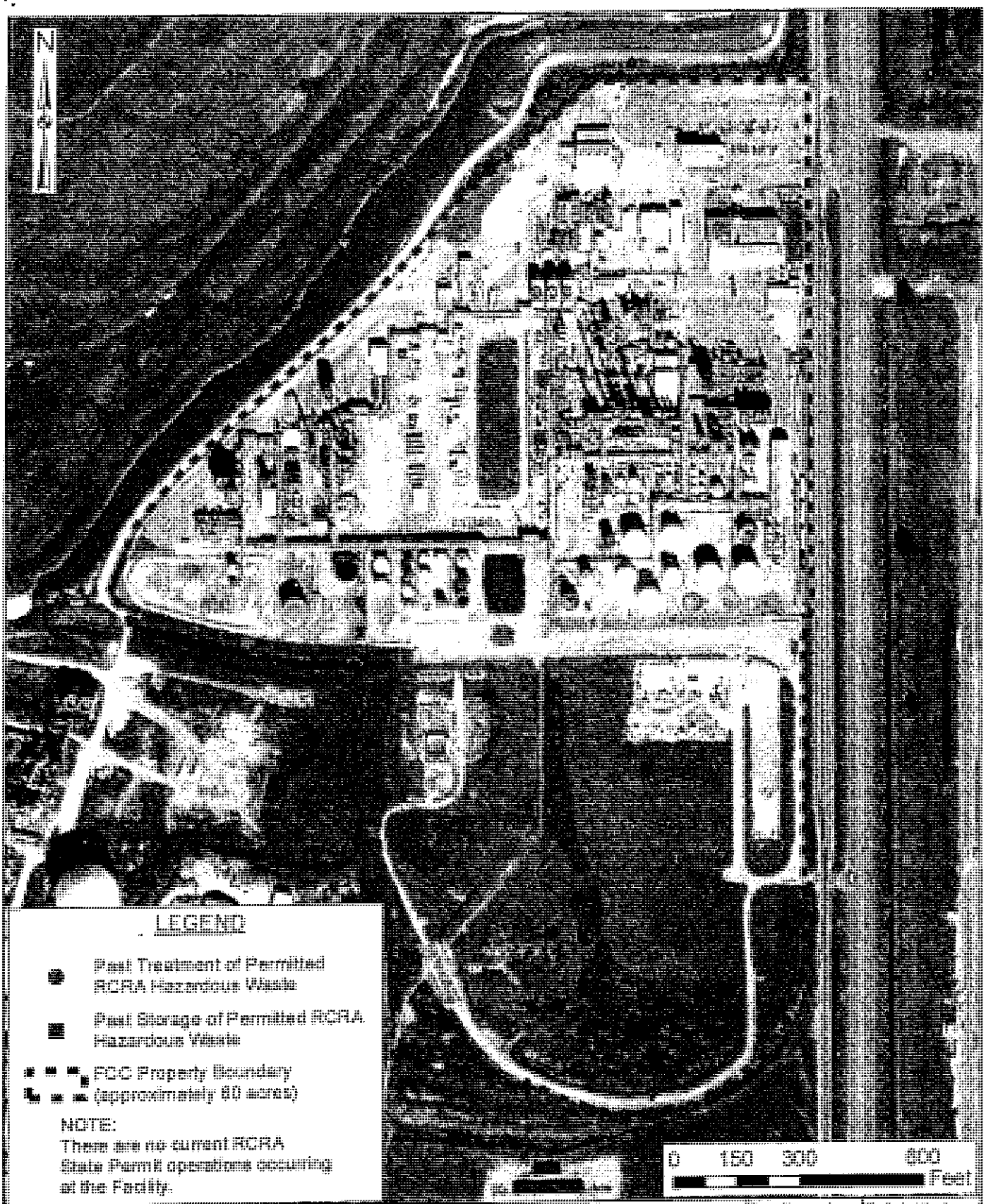
PARSONS
Parsons Environment & Infrastructure

2200 West Loop South
Suite 200
Houston, Texas 77027

Title:
Site Map
First Chemical Corporation
RCRA Part A Permit Application
Permit No. MSD 033 417 031

Drawn/Approved: RAH/RLL	File Project Number: 452819.05000
Date: 4/15/2022	Figure Number: ITEM 8
Revised:	
File Name: ITEM8_SITE_MAP	

Document Path: F:\GIS\Pascagoula\Project_Figures\RCRA Part B Application 2022\ITEM8_SITE_MAP.mxd



PARSONS

Title:
Facility Drawing
First Chemical Corporation
RCRA Part A Application
Permit No. MSD 033 417 091

ITEM 9

Document Path: F:\GIS\Pascagoula\Project_Figures\RCRA Part B Application 2022\ITEM9_FACILITY_MAP_04142022.mxd

OMB# 2050-0024; Expires 12/31/2014

SEND COMPLETED FORM TO: The Appropriate State or Regional Office.	United States Environmental Protection Agency **RCRA SUBTITLE C SITE IDENTIFICATION FORM**	

1. Reason for Submittal (MARK ALL BOX(ES) THAT APPLY)

Reason for Submittal:

- ☐ To provide an Initial Notification (first time submitting site identification information / to obtain an EPA ID number for this location)
- ☒ To provide a Subsequent Notification (to update site identification information for this location)
- ☐ As a component of a First RCRA Hazardous Waste Part A Permit Application
- ☒ As a component of a Revised RCRA Hazardous Waste Part A Permit Application (Amendment #_____)
- ☐ As a component of the Hazardous Waste Report (If marked, see sub-bullet below)
  - ☐ Site was a TSD facility and/or generator of ≥1,000 kg of hazardous waste, >1 kg of acute hazardous waste, or >100 kg of acute hazardous waste spill cleanup in one or more months of the report year (or State equivalent LQG regulations)

2. Site EPA ID Number

EPA ID Number MSD033417031

3. Site Name

Name: First Chemical Corporation

4. Site Location Information

Street Address: 1001 Industrial Road

City, Town, or Village: Pascagoula | **County:** Jackson

State: MS | **Country:** US | **Zip Code:** 39581-3237

5. Site Land Type

☑ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

6. NAICS Code(s) for the Site (at least 5-digit codes)

A.	325194	C.	325199
B.	325998	D.	325120

7. Site Mailing Address

Street or P.O. Box: PO Box7005

City, Town, or Village: Pascagoula

State: MS | **Country:** US | **Zip Code:** 39568-7005

8. Site Contact Person

First Name: Whit | **MI:** | **Last:** Griffin

Title: Site Manager

Street or P.O. Box: PO Box 7005

City, Town or Village: Pascagoula

State: MS | **Country:** US | **Zip Code:** 39568-7005

Email: whit.griffin@usa.dupont.com

Phone: (228) 938-2232 | **Ext.:** | **Fax:** (228) 938-2734

9. Legal Owner and Operator of the Site

A. Name of Site's Legal Owner: First Chemical Corporation | **Date Became Owner:** 01/01/1997

Owner Type: ☑ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

Street or P.O. Box: 1007 Market Street

City, Town, or Village: Wilmington | **Phone:** (228) 938-2200

State: DE | **Country:** US | **Zip Code:** 19898

B. Name of Site's Operator: First Chemical Corporation | **Date Became Operator:** 01/01/1997

Operator Type: ☑ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

10. Type of Regulated Waste Activity (at your site)
Mark "Yes" or "No" for all current activities (as of the date submitting the form); complete any additional boxes as instructed.

A. Hazardous Waste Activities; Complete all parts 1-10.

Y ☑ N ☐ **1. Generator of Hazardous Waste**
If "Yes", mark only one of the following – a, b, or c.

- ☑ a. LQG: Generates, in any calendar month, 1,000 kg/mo (2,200 lbs./mo.) or more of hazardous waste; **or** Generates, in any calendar month, or accumulates at any time, more than 1 kg/mo (2.2 lbs./mo) of acute hazardous waste; **or** Generates, in any calendar month, **or** accumulates at any time, more than 100 kg/mo (220 lbs./mo) of acute hazardous spill cleanup material.
- ☐ b. SQG: 100 to 1,000 kg/mo (220 – 2,200 lbs./mo) of non-acute hazardous waste.
- ☐ c. CESQG: Less than 100 kg/mo (220 lbs./mo) of non-acute hazardous waste.

If "Yes" above, indicate other generator activities in 2-4.

Y ☐ N ☑ **2. Short-Term Generator** (generate from a short-term or one-time event and not from on-going processes). If "Yes", provide an explanation in the Comments section.

Y ☐ N ☑ **3. United States Importer of Hazardous Waste**

Y ☐ N ☑ **4. Mixed Waste (hazardous and radioactive) Generator**

Y ☐ N ☑ **5. Transporter of Hazardous Waste**
If "Yes", mark all that apply.

- ☐ a. Transporter
- ☐ b. Transfer Facility (at your site)

Y ☑ N ☐ **6. Treater, Storer, or Disposer of Hazardous Waste** Note: A hazardous waste Part B permit is required for these activities.

Y ☐ N ☑ **7. Recycler of Hazardous Waste**

Y ☐ N ☑ **8. Exempt Boiler and/or Industrial Furnace**
If "Yes", mark all that apply.

- ☐ a. Small Quantity On-site Burner Exemption
- ☐ b. Smelting, Melting, and Refining Furnace Exemption

Y ☐ N ☑ **9. Underground Injection Control**

Y ☐ N ☑ **10. Receives Hazardous Waste from Off-site**

B. Universal Waste Activities; Complete all parts 1-2.

Y ☐ N ☑ **1. Large Quantity Handler of Universal Waste (you accumulate 5,000 kg or more) [refer to your State regulations to determine what is regulated]. Indicate types of universal waste managed at your site. If "Yes", mark all that apply.**

- a. Batteries ☐
- b. Pesticides ☐
- c. Mercury containing equipment ☐
- d. Lamps ☐
- e. Other (specify) _____ ☐
- f. Other (specify) _____ ☐
- g. Other (specify) _____ ☐

Y ☐ N ☑ **2. Destination Facility for Universal Waste**
Note: A hazardous waste permit may be required for this activity.

C. Used Oil Activities; Complete all parts 1-4.

Y ☐ N ☑ **1. Used Oil Transporter**
If "Yes", mark all that apply.

- ☐ a. Transporter
- ☐ b. Transfer Facility (at your site)

Y ☐ N ☑ **2. Used Oil Processor and/or Re-refiner**
If "Yes", mark all that apply.

- ☐ a. Processor
- ☐ b. Re-refiner

Y ☐ N ☑ **3. Off-Specification Used Oil Burner**

Y ☐ N ☑ **4. Used Oil Fuel Marketer**
If "Yes", mark all that apply.

- ☐ a. Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner
- ☐ b. Marketer Who First Claims the Used Oil Meets the Specifications

J. Eligible Academic Entities with Laboratories—Notification for opting into or withdrawing from managing laboratory hazardous wastes pursuant to 40 CFR Part 262 Subpart K

❖ You can **ONLY** Opt into Subpart K if:

- you are at least one of the following: a college or university; a teaching hospital that is owned by or has a formal affiliation agreement with a college or university; or a non-profit research institute that is owned by or has a formal affiliation agreement with a college or university; AND
- you have checked with your State to determine if 40 CFR Part 262 Subpart K is effective in your state

Y☐ N☑ 1. Opting into or currently operating under 40 CFR Part 262 Subpart K for the management of hazardous wastes in laboratories **See the item-by-item instructions for definitions of types of eligible academic entities. Mark all that apply:**

☐ a. College or University

☐ b. Teaching Hospital that is owned by or has a formal written affiliation agreement with a college or university

☐ c. Non-profit Institute that is owned by or has a formal written affiliation agreement with a college or university

Y☐ N☑ 2. Withdrawing from 40 CFR Part 262 Subpart K for the management of hazardous wastes in laboratories

11. Description of Hazardous Waste

A. Waste Codes for Federally Regulated Hazardous Wastes. Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g., D001, D003, F007, U112). Use an additional page if more spaces are needed.

D001	D002	D018	D036	F003	F004	F005
K083	K104	U012	U019	U169	U220	U328
U353						

B. Waste Codes for State-Regulated (i.e., non-Federal) Hazardous Wastes. Please list the waste codes of the State-Regulated hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed.

EPA ID Number | M | S | D | 0 | 3 | 3 | 4 | 1 | 7 | 0 | 3 | 1 |

OMB#: 2050-0024; Expires 12/31/2014

12. Notification of Hazardous Secondary Material (HSM) Activity

Y ☐ N ☑ Are you notifying under 40 CFR 260.42 that you will begin managing, are managing, or will stop managing hazardous secondary material under 40 CFR 261.2(a)(2)(ii), 40 CFR 261.4(a)(23), (24), or (25)?

If "Yes", you must fill out the Addendum to the Site Identification Form: Notification for Managing Hazardous Secondary Material.

13. Comments

The facility also produces nitric acid, NAICS code 325311

14. Certification. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations. For the RCRA Hazardous Waste Part A Permit Application, all owner(s) and operator(s) must sign (see 40 CFR 270.10(b) and 270.11).

Signature of legal owner, operator, or an authorized representative	Name and Official Title (type or print)	Date Signed (mm/dd/yyyy)
J. Freeman	James E. Freeman, Site Manager	03/21/2016

EPA ID Number | M | S | D | 0 | 3 | 3 | 4 | 1 | 7 | 0 | 3 | 1 | OMB#: 2050-0024; Expires 12/31/2014

ADDENDUM TO THE SITE IDENTIFICATION FORM:
NOTIFICATION OF HAZARDOUS SECONDARY MATERIAL ACTIVITY

ONLY fill out this form if:

- You are located in a State that allows you to manage excluded hazardous secondary material (HSM) under 40 CFR 261.2(a)(2)(ii), 261.4(a)(23), (24), or (25) (or state equivalent). See http://www.epa.gov/epawaste/hazard/dsw/statespf.htm for a list of eligible states; **AND**
- You are or will be managing excluded HSM in compliance with 40 CFR 261.2(a)(2)(ii), 261.4(a)(23), (24), or (25) (or state equivalent) **or** you have stopped managing excluded HSM in compliance with the exclusion(s) and do not expect to manage any amount of excluded HSM under the exclusion(s) for at least one year. Do not include any information regarding your hazardous waste activities in this section.

1. Indicate reason for notification. Include dates where requested.

☐ Facility will begin managing excluded HSM as of _____ (mm/dd/yyyy).

☐ Facility is still managing excluded HSM/re-notifying as required by March 1 of each even-numbered year.

☐ Facility has stopped managing excluded HSM as of _____ (mm/dd/yyyy) and is notifying as required.

2. Description of excluded HSM activity. Please list the appropriate codes and quantities in **short tons** to describe your excluded HSM activity ONLY (do not include any information regarding your hazardous wastes). Use additional pages if more space is needed.

a. Facility code (answer using codes listed in the Code List section of the instructions)	**b. Waste code(s) for HSM**	**c. Estimated short tons of excluded HSM to be managed annually**	**d. Actual short tons of excluded HSM that was managed during the most recent odd-numbered year**	**e. Land-based unit code** (answer using codes listed in the Code List section of the instructions)

3. Facility has financial assurance pursuant to 40 CFR 261.4(a)(24)(vi). (Financial assurance is required for reclaimers and intermediate facilities managing excluded HSM under 40 CFR 261.4(a)(24) and (25))

Y☐ N☐ Does this facility have financial assurance pursuant to 40 CFR 261.4(a)(24)(vi)?

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EPA ID Number | M | S | D | 0 | 3 | 3 | 4 | 1 | 7 | 0 | 3 | 1 |

OMB#: 2050-0024; Expires 12/31/2014

United States Environmental Protection Agency

HARDOUS WASTE PERMIT INFORMATION FORM

1. Facility Permit Contact

First Name: Whit | **MI:** | **Last Name:** Griffin

Contact Title: Site Manager

Phone: (228) 938-2232 | **Ext.:** | **Email:** whit.griffin@usa.dupont.com

2. Facility Permit Contact Mailing Address

Street or P.O. Box: 1001 Industrial Road

City, Town, or Village: Pascagoula

State: MS

Country: US | **Zip Code:** 39581-3237

3. Operator Mailing Address and Telephone Number

Street or P.O. Box: 1001 Industrial Road

City, Town, or Village: Pascagoula

State: MS | **Phone:** (228) 938-2200

Country: US | **Zip Code:** 39581-3237

4. Facility Existence Date

Facility Existence Date (mm/dd/yyyy): 03/01/1989

5. Other Environmental Permits

A. Facility Type (Enter code)	B. Permit Number	C. Description
E	12801-00022	Air emissions
N	MSP0903600	POTW pre-treatment
N	MSR1100075	Storm water discharge
R	MSD033417031	HSWA permit by USEPA

6. Nature of Business: Manufacture of Industrial Organic Chemicals

7. Process Codes and Design Capacities – Enter information in the Section on Form Page 3

A. PROCESS CODE – Enter the code from the list of process codes below that best describes each process to be used at the facility. If more lines are needed, attach a separate sheet of paper with the additional information. For "other" processes (i.e., D99, S99, T04 and X99), describe the process (including its design capacity) in the space provided in Item 8.

B. PROCESS DESIGN CAPACITY – For each code entered in Item 7.A; enter the capacity of the process.

1. **AMOUNT – Enter the amount. In a case where design capacity is not applicable (such as in a closure/post-closure or enforcement action) enter the total amount of waste for that process.**
2. **UNIT OF MEASURE – For each amount entered in Item 7.B(1), enter the code in Item 7.B(2) from the list of unit of measure codes below that describes the unit of measure used. Select only from the units of measure in this list.**

C. PROCESS TOTAL NUMBER OF UNITS – Enter the total number of units for each corresponding process code.

Process Code	Process	Appropriate Unit of Measure for Process Design Capacity
Disposal		
D79	Underground Injection Well Disposal	Gallons; Liters; Gallons Per Day; or Liters Per Day
D80	Landfill	Acre-feet; Hectares-meter; Acres; Cubic Meters; Hectares; Cubic Yards
D81	Land Treatment	Acres or Hectares
D82	Ocean Disposal	Gallons Per Day or Liters Per Day
D83	Surface Impoundment Disposal	Gallons; Liters; Cubic Meters; or Cubic Yards
D99	Other Disposal	Any Unit of Measure Listed Below
Storage		
S01	Container	Gallons; Liters; Cubic Meters; or Cubic Yards
S02	Tank Storage	Gallons; Liters; Cubic Meters; or Cubic Yards
S03	Waste Pile	Cubic Yards or Cubic Meters
S04	Surface Impoundment	Gallons; Liters; Cubic Meters; or Cubic Yards
S05	Drip Pad	Gallons; Liters; Cubic Meters; Hectares; or Cubic Yards
S06	Containment Building Storage	Cubic Yards or Cubic Meters
S99	Other Storage	Any Unit of Measure Listed Below
Treatment		
T01	Tank Treatment	Gallons Per Day; Liters Per Day
T02	Surface Impoundment	Gallons Per Day; Liters Per Day
T03	Incinerator	Short Tons Per Hour; Metric Tons Per Hour; Gallons Per Hour; Liters Per Hour; BTUs Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Gallons Per Day; Metric Tons Per Hour; or Million BTU Per Hour
T04	Other Treatment	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Short Tons Per Day; BTUs Per Hour; Gallons Per Day; Liters Per Hour; or Million BTU Per Hour
T80	Boiler	Gallons; Liters; Gallons Per Hour; Liters Per Hour; BTUs Per Hour; or Million BTU Per Hour

Process Code	Process	Appropriate Unit of Measure for Process Design Capacity (for T81 – T94)
Treatment (Continued)		
T81	Cement Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; BTU Per Hour; Liters Per Hour; Kilograms Per Hour; or Million BTU Per Hour
T82	Lime Kiln	
T83	Aggregate Kiln	
T84	Phosphate Kiln	
T85	Coke Oven	
T86	Blast Furnace	
T87	Smelting, Melting, or Refining Furnace	
T88	Titanium Dioxide Chloride Oxidation Reactor	
T89	Methane Reforming Furnace	
T90	Pulping Liquor Recovery Furnace	
T91	Combustion Device Used in the Recovery of Sulfur Values from Spent Sulfuric Acid	
T92	Halogen Acid Furnaces	
T93	Other Industrial Furnaces Listed in 40 CFR 260.10	
T94	Containment Building Treatment	Cubic Yards; Cubic Meters; Short Tons Per Hour; Gallons Per Hour; Liters Per Hour; BTU Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Metric Tons Per Day; Gallons Per Day; Liters Per Day; Metric Tons Per Hour; or Million BTU Per Hour
Miscellaneous (Subpart X)		
X01	Open Burning/Open Detonation	Any Unit of Measure Listed Below
X02	Mechanical Processing	Short Tons Per Hour; Metric Tons Per Hour; Short Tons Per Day; Metric Tons Per Day; Pounds Per Hour; Kilograms Per Hour; Gallons Per Hour; Liters Per Hour; or Gallons Per Day
X03	Thermal Unit	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; BTU Per Hour; or Million BTU Per Hour
X04	Geologic Repository	Cubic Yards; Cubic Meters; Acre-feet; Hectare-meter; Gallons; or Liters
X99	Other Subpart X	Any Unit of Measure Listed Below

Unit of Measure	Unit of Measure Code
Gallons	G
Gallons Per Hour	E
Gallons Per Day	U
Liters	L
Liters Per Hour	H
Liters Per Day	V
Short Tons Per Hour	D
Short Tons Per Day	N
Metric Tons Per Hour	W
Metric Tons Per Day	S
Pounds Per Hour	J
Kilograms Per Hour	X
Million BTU Per Hour	X
Cubic Yards	Y
Cubic Meters	C
Acres	B
Acre-feet	A
Hectares	Q
Hectare-meter	F
BTU Per Hour	I

7. Process Codes and Design Capacities (Continued)

EXAMPLE FOR COMPLETING Item 7 (shown in line number X-1 below): A facility has a storage tank, which can hold 533.788 gallons.

Line Number		A. Process Code (From list above)			B. PROCESS DESIGN CAPACITY		C. Process Total Number of Units	For Official Use Only
					(1) Amount (Specify)	(2) Unit of Measure		
X	1	S	0	2	533.788	G	001	
	1	S	0	2	51,850	G	005	
	2	T	0	3	1,333.8	J	001	
	3	D	8	3	2,700	G	001	
	4							
	5							
	6							
	7							
	8							
	9							
1	0							
1	1							
1	2							
1	3							

Note: If you need to list more than 13 process codes, attach an additional sheet(s) with the information in the same format as above. Number the line sequentially, taking into account any lines that will be used for "other" process (i.e., D99, S99, T04, and X99) in Item 8.

8. Other Processes (Follow instructions from Item 7 for D99, S99, T04, and X99 process codes)

Line Number (Enter #s in sequence with Item 7)		A. Process Code (From list above)			B. PROCESS DESIGN CAPACITY		C. Process Total Number of Units	For Official Use Only
					(1) Amount (Specify)	(2) Unit of Measure		
X	2	T	0	4	100.00	U	001	

9. Description of Hazardous Wastes - Enter Information in the Sections on Form Page 5

A. EPA HAZARDOUS WASTE NUMBER – Enter the four-digit number from 40 CFR, Part 261 Subpart D of each listed hazardous waste you will handle. For hazardous wastes which are not listed in 40 CFR, Part 261 Subpart D, enter the four-digit number(s) from 40 CFR Part 261, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

B. ESTIMATED ANNUAL QUANTITY – For each listed waste entered in Item 9.A, estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in Item 9.A, estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.

C. UNIT OF MEASURE – For each quantity entered in Item 9.B, enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure, taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:

For listed hazardous waste: For each listed hazardous waste entered in Item 9.A, select the code(s) from the list of process codes contained in Items 7.A and 8.A on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all listed hazardous wastes.

For non-listed waste: For each characteristic or toxic contaminant entered in Item 9.A, select the code(s) from the list of process codes contained in Items 7.A and 8.A on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

NOTE: THREE SPACES ARE PROVIDED FOR ENTERING PROCESS CODES. IF MORE ARE NEEDED:

1. **Enter the first two as described above.**
2. **Enter "000" in the extreme right box of Item 9.D(1).**
3. **Use additional sheet, enter line number from previous sheet, and enter additional code(s) in Item 9.E.**

2. PROCESS DESCRIPTION: If code is not listed for a process that will be used, describe the process in Item 9.D(2) or in Item 9.E(2).

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER – Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. **Select one of the EPA Hazardous Waste Numbers and enter it in Item 9.A. On the same line complete Items 9.B, 9.C, and 9.D by estimating the total annual quantity of the waste and describing all the processes to be used to store, treat, and/or dispose of the waste.**
2. **In Item 9.A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In Item 9.D.2 on that line enter "included with above" and make no other entries on that line.**
3. **Repeat step 2 for each EPA Hazardous Waste Number that can be used to describe the hazardous waste.**

EXAMPLE FOR COMPLETING Item 9 (shown in line numbers X-1, X-2, X-3, and X-4 below) – A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operations. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter code)	D. PROCESSES (1) PROCESS CODES (Enter Code)									(2) PROCESS DESCRIPTION (If code is not entered in 9.D(1))
X	1	K	0	5	4	900	P	T	0	3	D	8	0				
X	2	D	0	0	2	400	P	T	0	3	D	8	0				
X	3	D	0	0	1	100	P	T	0	3	D	8	0				
X	4	D	0	0	2												Included With Above

9. Description of Hazardous Wastes *(Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)*

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter code)	D. PROCESSES									
								(1) PROCESS CODES (Enter Code)									(2) PROCESS DESCRIPTION (If code is not entered in 9.D(1))
	1	D	0	0	1	400	T	T	0	3	S	0	2				
	2	D	0	1	8	400	T	T	0	3	S	0	2				
	3	D	0	3	6	400	T	T	0	3	S	0	2				
	4	F	0	0	3	400	T	T	0	3	S	0	2				
	5	F	0	0	4	1	T	T	0	3	S	0	2				
	6	F	0	0	5	400	T	T	0	3	S	0	2				
	7	K	0	8	3	600	T	T	0	3	S	0	2				
	8	K	1	0	4	800	T	T	0	3	S	0	2				
	9	U	0	1	2	1	T	T	0	3	S	0	2				
1	0	U	0	1	9	1	T	T	0	3	S	0	2				
1	1	U	1	6	9	1	T	T	0	3	S	0	2				
1	2	U	2	2	0	1	T	T	0	3	S	0	2				
1	3	U	3	2	8	1	T	T	0	3	S	0	2				
1	4	U	3	5	3	1	T	T	0	3	S	0	2				
1	5																
1	6																
1	7																
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2	7																
2	8																
2	9																
3	0																
3	1																
3	2																
3	3																
3	4																
3	5																
3	6																

EPA ID Number | M | S | D | 0 | 3 | 3 | 4 | 1 | 7 | 0 | 3 | 1 | OMB#: 2050-0024; Expires 12/31/2014

9. Description of Hazardous Wastes ***(Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)***

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter code)	D. PROCESSES									
								(1) PROCESS CODES (Enter Code)									(2) PROCESS DESCRIPTION (If code is not entered in 9.D.1)

10. Map

Attach to this application a topographical map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all spring, rivers, and other surface water bodies in this map area. See instructions for precise requirements.

11. Facility Drawing

All existing facilities must include a scale drawing of the facility (see instructions for more detail).

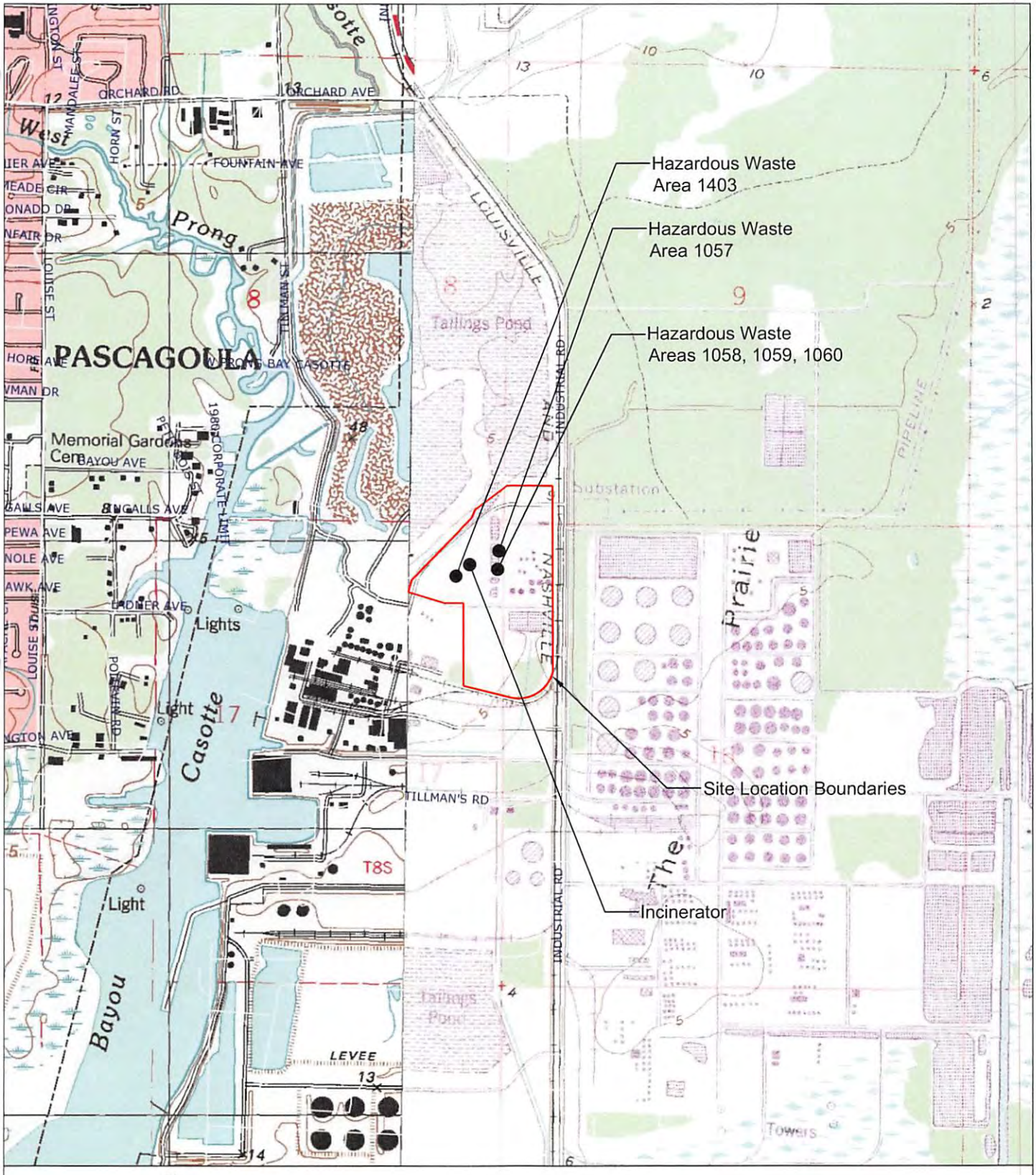
12. Photographs

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment, and disposal areas; and sites of future storage, treatment, or disposal areas (see instructions for more detail).

13. Comments

First Chemical Corporation operates a groundwater collection trench as part of facility-wide groundwater corrective action in accordance with the site RCRA and HSWA permits. Contaminated groundwater is collected, treated, and discharged in a wastewater treatment system that is permitted under the Clean Water Act to discharge to the local POTW. The contaminated groundwater is regarded as contaminated media, which may contain a hazardous waste and must be managed as a hazardous waste, but is not counted as a hazardous waste. Under EPA policy and Regulations, units permitted under the Clean Water Act may be used for the treatment and disposal of contaminated groundwater, and are exempt from RCRA regulation.

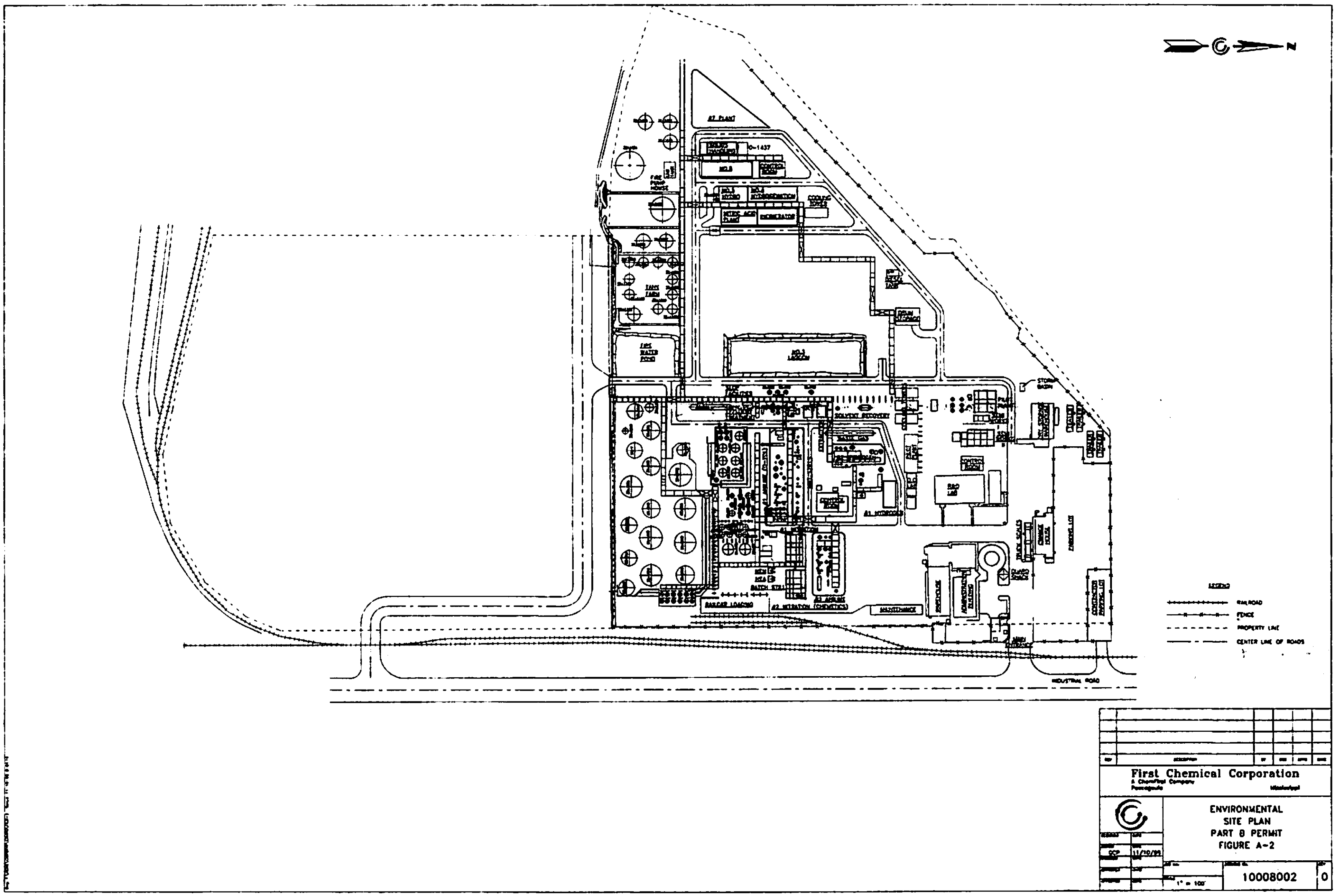
The surface impoundment identified by Process Code D83 in Item 7. above has been closed and is undergoing post-closure care.



FC&E Engineering, LLC
917 Marquette Road
Brandon, Mississippi 39042

First Chemical Corporation
Pascagoula Plant
1001 Industrial Road, Pascagoula, Mississippi

Figure Number: Figure A-1
Figure Name: Topographic Map
Project: RCRA Plan
Drawn By: CC
Date Drawn: June 11, 2013



First Chemical Corporation
A ChemFirst Company
Pascagoula Mississippi

ENVIRONMENTAL
SITE PLAN
PART B PERMIT
FIGURE A-2

DCP 11/10/95

1" = 100'

10008002 | 0

FC&E Engineering, LLC
917 Marquette Road
Brandon, Mississippi 39042

First Chemical Corporation
Pascagoula Plant
1001 Industrial Road, Pascagoula, Mississippi

Figure Number: Figure A-3b
Figure Name: Aerial Photograph
Project: RCRA Plan
Drawn By: CC
Date Drawn: June 11, 2013

ATTACHMENT II.1.

WASTE ANALYSIS PLAN

SECTION C

WASTE CHARACTERISTICS

C-1 Chemical and Physical Analysis

Since FCC has demonstrated compliance with the Maximum Achievable Control Technology (MACT) requirements of 40 CFR 63, subpart EEE, the Waste Analysis Plan specific for operation of the incinerator is now included in the facility's Title V permit, except where a limitation on emissions is based on a RCRA requirement, such as the mercury emission limit established under the risk assessment.

FCC generates two listed hazardous waste streams, K083 and K104. EPA defines these waste streams as follows:

K083 - distillation bottoms from aniline production, and
K104 - combined wastewater streams generated from nitrobenzene/aniline production.

The K083 is stored on-site prior to treatment in FCC's on-site incinerator, and on occasion, manifested to an off-site TSDF for incineration and/or energy recovery. Waste organics are separated out of the K104 wastewater and are likewise stored on-site prior to treatment in the on-site incinerator or manifested off-site for treatment. The resultant K104 treated wastewater is discharged to the Mississippi Gulf Coast Regional Wastewater Authority via FCC's NPDES permitted (pretreatment permit) outfall.

Both of these waste streams are listed by EPA for their toxicity. For FCC's listed wastes, these waste streams are listed by EPA due the following hazardous constituents:

K083 - aniline and nitrobenzene.
K104 - aniline, benzene and nitrobenzene.

Although USEPA recognizes that phenylamine and phenylenediamine may also be present in K083 and K104, FCC's processes do not use or produce these materials. Table C-1 contains a listing of hazardous constituents that may be present in the K083 and K104 wastes generated at FCC.

In addition to the processes that generate the K083 and K104 waste streams, FCC engages in the manufacture of specialty chemicals that can produce hazardous waste streams listed due to their characteristics (corrosivity, reactivity, ignitability or EP toxicity). These characteristic waste streams that meet the waste feed limitations for the incinerator, and are compatible with the wastes and tank construction materials of Tank 1403, are stored in Tank 1403 and treated in the on-site incinerator.

Waste organics are also occasionally generated by the clean-out of chemical storage tanks at the site. These residuals may be characteristic wastes and/or listed wastes, but generally contain one or more of the constituents normally found in the K083 or K104 waste streams. Sovents are sometimes used for cleaning or thinning waste streams, so F-listed solvent waste may be stored and incinerated when permissible under the incinerator permit conditions. If the solvent is not spent, then it may carry the appropriate U-listing. Used oils from the process area may also be collected

and stored in Tank 1403. These used oils are generally lubricating oils or heat transfer fluids, and are not hazardous wastes. Any hazardous wastes generated that cannot be managed in the permitted storage tanks and incinerator are manifested to an FCC approved and EPA permitted TSDF.

TABLE C-1
PROPERTIES OF K083 AND K104

PARAMETER, mg/kg	**K083**	**K104**
Aniline	ND* - 470,000	ND – 10,000
Benzene	ND - 29,700	ND – 8,000
Dinitrobenzene	ND - 20,000	ND - 1,000
4,6-dinitro-o-cresol	ND	ND – 10,000
2,4-dinitrophenol	ND	ND – 100,000
2,4-dinitrotoluene	ND – 55,000	ND
2,6-dinitrotoluene	ND – 20,000	ND
Ortho-toluidine	ND – 400,000	ND
Nitrobenzene	328 - 960,000	30 - 143,000
Phenol	ND – 15,000	ND
Toluene	81 - 860,000	ND – 1,000,000
Antimony	ND – 5.0	ND – 5.0
Arsenic	ND - 3.2	ND - 3.7
Barium	ND – 4.0	ND – 4.0
Beryllium	ND - 1.0	ND - 1.1
Cadmium	ND - 0.6	ND - 1.7
Chromium	ND – 2.3	ND - 1.3
Lead	ND – 3.2	ND – 5.0
Mercury	ND – 1.0	ND – 0.45
Silver	ND - 1.9	ND – 1.5
Thallium	ND - 3.0	ND – 4.0
Ash, %	ND - 0.27	ND - 1.06**
Viscosity, cs	0.85 - 8.92	0.72 – 7.42
BTU, per pound	10,000 - 17,000	6,300 - 17,100
Specific Gravity, 200 1F	1.0 - 1.07	1.0 - 1.07
Recommended handling temp.	>80 ^{O}F	>80 ^{O}F

*ND = not detected in sample
**Statistical outlyer

Elemental properties of these waste streams are summarized in Table C-2:

Note: Carcinogenic metal concentrations are regulated at the incinerators burner nozzle where the two waste streams mix. The metals concentrations for the combined waste stream will not exceed permitted limits.

TABLE C-2
ELEMENTAL ANALYSIS

Element	K083	K104
Carbon, wt. %	67.9 - 71.9	63.2
Hydrogen, wt. %	6.0 - 6.8	5.2
Nitrogen, wt. %	13.2 - 13.8	9.0
Oxygen, wt. %	7.5 - 12.9	22.5
Sulfur, ppmw	70 - 170	0.3*
Sodium, ppmw	10	not applicable

*Total sulfur

C-1a Containers
not applicable

C-1b Waste inTank Systems

FCC utilizes five storage tanks for the storage of hazardous wastes. These tanks are identified as follows:

TK-1057	9,400 gallons
TK-1058	9,400 gallons
TK-1059	5,800 gallons
TK-1060	13,250 gallons
TK-1403	14,500 gallons

Additional information on the design and operation of these tanks is included in Section D.
FCC does not store waste in tanks which contains no free liquids, therefore method 9095B is not applicable.

FCC has characterized the existing waste streams stored in tanks using test methods from SW-846 shown in Table C-3. If any new waste streams are generated in the future, generator knowledge and/or testing in accordance with SW-846 methods will be utilized to ensure the safe storage and handling of the waste.

C-1c Waste in Piles
Not Applicable

C-1d Landfilled Wastes

Not Applicable

C-1e Wastes Incinerated and Waste Used in Performance Tests

As noted above, the waste analysis specific to the incinerator are now contained in the TitleV air permit, in accordance with the requirements of 40 CFR 63, subpart EEE.

Table C-1 provides information on the Appendix VIII constituent concentrations of the listed waste streams that will be stored in the hazardous waste storage tanks and treated in FCC's on-site incinerator.

C-1f Waste to be Land Treated
Not Applicable

C-1g Wastes in Miscellaneoud Treatment Units
Not Applicable

C-1h Wastes in Boilers and Industrial Furnaces
Not Applicable

C-1h Wastes on Drip Pads
Not Applicable

C-2 Waste Analysis Plan

The following sections constitute FCC's Waste Analysis Plan and provide information on the procedures and methods utilized to obtain chemical and physical data on the hazardous waste streams generated by FCC.

C-2a Parameters and Rationale

Parameters for Routine Analyis

As discussed above, with the exception of mercury, emission limitations are now governed by the Hazardous Waste Combustor MACT, 40 CFR 63 subpart EEE, and the specific emission/feed rate limits limits are governed by the facilty's Title V permit. For this reason, mercury is the only parameter proposed for routine monitoring under the Part B Waste Analysis Plan.

Two listed hazardous waste streams are generated by FCC - K083 and K104. Additionally, FCC generates characteristic hazardous wastes from specialty chemical operations that are candidates for thermal treatment. These wastes are generically referred to as "additional on-site generated wastes." The analytical parameters have been selected based on process knowledge and analytical data from product and waste testing. The wastes from new products are screened for the presence of hazardous constituents using process knowledge and, if necessary, conducting analytical testing. Since many of FCC's new products are developed in-house, onsite personnel are uniquely familiar with the chemical makeup of the product and the resulting waste. For other products, FCC obtains the information from the suppliers in the form of material safety data sheets or certificates of analysis. Again, analytical testing may, and often is, conducted to satisfy waste profiling requirements for on- and offsite management of residues.

K083

Aniline distillation bottoms (K083) are listed hazardous wastes for toxicity under 40 CFR 261.32. The basis for listing this waste, according to Appendix VII of 40 CFR 261, is the presence of the

hazardous constituents aniline, diphenylamine, nitrobenzene and phenylenediamine. However, the K083 generated by FCC does not contain diphenylamine or phenylenediamine.

K104

The combined wastewaters from the production of aniline and nitrobenzene (K104) are listed hazardous wastes for toxicity under 40 CFR 261.32. The basis for listing this waste, according to Appendix VII of 40 CFR 261, is the presence of aniline, benzene, diphenylamine, nitrobenzene and phenylenediamine. However, the K104 generated by FCC does not contain diphenylamine or phenylenediamine.

FCC further acknowledges that ash and waste residue resulting from the treatment of hazardous waste is subject to the "derived-from" rule and will likewise be managed as hazardous waste, and is subject to Land Disposal Restrictions.

Wastes combusted in the hazardous waste incinerator are analyzed in accordance with the requirements of 40 CFR 63 subpart EEE and the facility's Title V permit, Permit No. 1280-00022. The wastes stored in the hazardous waste storage tanks are the same wastes that are incinerated. With the continuing analyses of the waste streams as required under the Title V permit, and the extensive database of historical analytical information available for the waste streams, no additional periodic waste analysis is required in order to manage the waste streams in the onsite storage tanks.

Statistical Profiling of Waste Stream Constituents[1]

FCC has accumulated years of analytical data for mercury content of waste fed to the incinerator. This data, along with results of future testing, will be subjected to a series of statistical tests to document compliance with the mercury feed rate limit to be established by the Part B permit. FCC will use the following principles as guidelines for the statistical evaluation of the mercury content of the waste feed to the incinerator:

The statistical evaluation will be based on actual analytical results. FCC will demonstrate at least a 95% probability and confidence that the permit limit will not be exceeded. An ongoing sampling and analysis program will demonstrate temporal conformity.

This will be accomplished with the use of a procedure for establishing an upper tolerance limit (UTL). Using an upper tolerance limit makes it possible to estimate the probability that a fixed percentage of the sample population will not exceed a certain value (i.e., the permit limit or the UTL). The UTL is continually adjusted to reflect new information from analysis; FCC will utilize a 12-month rolling average to accomplish this.

The steps for calculating a UTL for mercury are listed below:

Step 1. Using the twelve most recent analytical results for each constituent, calculate the arithmetic mean ($\bar{x}$), and the standard deviation (s) for the data set.

Step 2. Using the following equation, calculate the upper tolerance limit for 95% confidence and 95% probability, UTL (0.95,0.95). This notation indicates that there is at least 95% confidence that

[1] USEPA, Waste Analysis Guidance for Facilities that Burn Hazardous Wastes (draft), EPA530-R-94-019, 1994.

at least 95% of all samples will not exceed the UTL. Values for K in the following equation are found in statistics reference tables for calculating one-sided tolerance bounds for normal distributions.

$$UTL_{(1-\alpha p)} = (\tilde{x}) + (K_{(1-\alpha p)})(s)$$

where:

$1-\alpha$ = the desired level of confidence that at least 100(p) percent of the individual samples will be below the UTL.

p = the decimal fraction of samples that will be predicted to fall below the UTL.

s = the number of samples.

K = factor for calculating normal distributions one-sided $100(1-\alpha)\%$ tolerance bounds

FCC will comply with the referenced EPA guidance by using a confidence value $(1-\alpha)$ of ≥ 0.95 and a probability value (p) of ≥ 0.95.

Step 3. Determine the frequency of sampling and analysis according to the following equation:

$$\frac{\text{number of samples}}{\text{year}} = (\alpha_{calc})\,(Y)$$

where:

α_{calc} = one minus the level of confidence used to calculate the UTL (1-0.95 = 0.05).

Y = days per year that waste was generated.

Outliers and Detection Limits

Outlying Data Points

Each data point will be compared with historical values of the same data set (each constituent analyzed in a particular waste stream). If it is apparent that the data point is abnormally high or low as compared to the historical data, an attempt will be made to determine if some error has occurred in sampling, handling, or analysis. If a sampling error caused the outlier, a new sample will be collected and analyzed. If the error is in the analytical procedure, the sample will be reanalyzed provided that the holding time has not been exceeded and sufficient sample volume is available. Should there not be sufficient sample volume or if the holding time has been exceeded, then a new sample will be

collected and reanalyzed. If no error can be attributed to the outlier, then the sample will be considered as representative of the character of the waste and included in the data set.

Detection Limits

For purposes of statistical evaluation, FCC will enumerate analytical values reported below detection limits as one-half the detection limit.

Additional On-site Generated Wastes

FCC generates characteristic hazardous wastes from its specialty chemical operations that exhibit fuel-value characteristics and are therefore candidates for treatment in the incinerator. Typically, these wastes exhibit the characteristic of ignitability or contain one of the organics frequently used by FCC. It is possible however, that other hazardous wastes could be generated depending upon the particular manufacturing process. Wastes generated from these processes that meet the waste feed limitations established in the permit may be treated in the on-site incinerator. Wastes not meeting the waste feed limitations will be manifested to an approved TSDF.

Specialty chemicals are synthesized in on-site laboratories resulting in a thorough knowledge of the chemistry of the final product, intermediates and waste materials. Therefore, process knowledge is deemed adequate for characterizing these waste materials and no special analytical procedures are proposed herein. The manufacture of these chemicals is preceded by a process evaluation for health, safety and environmental concerns. This process is documented in a permanent file and maintained indefinitely on site. The environmental portion of the evaluation includes waste disposition issues and addresses whether the waste can be treated on site or if off-site treatment/disposal options are appropriate.

FCC occasionally generates waste from the clean-out of storage tanks. Those residues that meet the waste feed limitations are incinerated on-site. Wastes not meeting the waste feed limitations will be manifested to an approved TSDF.

FCC also incinerates used oils generated on site when these materials, such as used lubricating oils and heat transfer fluids, meet the waste feed limitations.

Incinerator Residues

By virtue of the derived-from rule, FCC acknowledges that incinerator residue (ash) is classified as a hazardous waste. As such, FCC will manage this waste material according to the appropriate RCRA regulations.

C-2b Test Methods

Table C-3 provides a summary of the waste streams, analytes and test methods that may be utilized for analyses if recharacterization is required due to process changes.

TABLE C-3
SUMMARY OF SW-846 TEST METHODS*

Waste	Compound	Method
K083	Aniline	8270C
	Benzene	8260B
	2,4-dinitrotoluene	8270C
	2,6-dinitrotoluene	8270C
	Diphenylamine	8270C
	Nitrobenzene	8270C
	Phenol	8270C
	Phenylenediamine	8270C
	Toluene	8260B
	Total Metals	6010C
	Mercury	7470A
	Chlorine	9020B
	Ash	D-3174
	BTU	D-3286
	Viscosity	D-445
K104	Dinitrobenzene	8270C
	4,6-dinitro-o-cresol	8270C
	2,4-dinitrophenol	8270C
	Nitrobenzene	8270C
	Phenol	8270C
	Toluene	8260B
	Total Metals	6010C
	Mercury	7470A
	Chlorine	9020B
	Ash	D-3174
	BTU	D-3286
	Viscosity	D-445
Characteristic	varies	1311
Additional On-site Generated Wastes	varies	Process Knowledge

*Referenced methods are from 12/96 (CD-ROM) revision of SW-846 (most recent version). Equivalent EPA approved methods may be substituted.

C-2c Sampling Methods

The sampling method(s) employed to collect representative samples were adapted from the guidelines presented in chapter four of SW-846. In practice, grab samples are collected from sample ports in the waste feed lines to the incinerator, placed in appropriate containers and shipped to an independent laboratory for analysis.

FCC operators take part in a continuous process of classroom and on-the-job training including procedures for sample collection and personal safety considerations. A copy of these procedures are included immediately following section C-3e. The operator wears appropriate personal protection equipment, typically protective gloves and safety eyewear, while in the operating unit and while collecting samples. The sample trap is purged prior to collecting the sample to evacuate any trapped water. The sample is collected in an amber glass jar (typically one liter) with a Teflon® lid. No preservative is required for these samples because of the high organic concentration. Waste feed samples are analyzed in an independent offsite laboratory that picks the samples up at FCC on the day of, or day after their collection. Samples are analyzed within the allowable holding times for the particular method/analyte.

C-2d Frequency of Analysis

The K083 and K104 waste feed samples will be subjected to organic constituent analysis in the event the process generating the waste is changed. All new waste streams will be evaluated per process knowledge, and, if necessary, laboratory analysis prior to being stored in the tank system.

C-2e Additional Requirements for Wastes Generated Off Site

Not applicable

C-2f Additional Requirements for Facilities Handling Ignitable, Reactive, or Incompatible Waste

The wastes stored in tanks at FCC are documented to be ignitable, and precautions are taken to prevent accidiental ignition of vapors, including nitrogen blanketing of each tank and the utilization of conservation vents. No additional routine sampling and testing is required to document that the current waste streams are compatible with each other and with the materials of construction of the tank systems, and that the waste streams do not produce uncontrolled fumes or gases in sufficient quantities to threaten human health and the environment. If any new waste streams are generated in the future, they will be assessed using process knowledge and, if necessary, laboratory testing to confirm compatibility.

C-2g Additional Requirements Pertaining to Boiler/Industrial Furnace Facilities

Not applicable

C-3 Additional Waste Analysis Requirements Pertaining to Land Disposal Restrictions

FCC does not engage in the on-site disposal of hazardous wastes in land based units (landfills, waste piles, or surface impoundments). FCC prepares and submits with each off-site shipment of hazardous waste a land ban certification form indicating that the waste is restricted from land disposal, unless the waste is specifically exempted from the land ban disposal requirements (e.g., contaminated debris). The wastes generated by FCC contain concentrations of organics and hazardous constituents that are well above the land disposal treatment standards established in 40 CFR 268.40. Therefore, FCC presumes that the wastes are above the treatment standards and manages the wastes accordingly. In the infrequent event that a waste may be appropriately land disposed, FCC will collect the required data to support the decision (source of waste, TCLP analysis, identification of hazardous constituents and underlying hazardous constituents) and maintain the data in the facility's operating record.

C-3a Waste Analysis

All wastes are presumed to exceed treatment standards based on process knowledge, and are sent to a permitted facility for disposal, with the required manifest and Land Disposal Restriction notification.

C-3a(1) Spent Solvent and Dioxin Wastes

FCC does not generate wodtreating wastes or dioxin wastes. Spent solvent wastes and residues are presumed not to meet treatment standards using process knowledge, and when manifested to an off-site permitted facility, are accompanied by the required Land Disposal Restriction notification.

C-3a(2) California List Wastes

Not applicable

C-3a(3) Listed Wastes

All listed wastes and residues are presumed to exceed treatment standards based on process knowledge, and are sent to a permitted facility for disposal, with the required manifest and Land Disposal Restriction notification.

C-3a(4) Characteristic Wastes

All characteristic wastes and residues are presumed to exceed treatment standards based on process knowledge, and are sent to a permitted facility for disposal, with the required manifest and Land Disposal Restriction notification.

C-3a(5) Radioactive Mixed Wastes

Not applicable

C-3a(6) Leachates

Not applicable

C-3a(7) Lab Packs

Not applicable

C-3a(8) Contaminated Debris

Not applicable

C-3a(9) Waste Mixtures and Wastes with Overlapping Requirements

All hazardous wastes and residues are presumed to exceed treatment standards based on process knowledge, and are sent to a permitted facility for disposal, with the required manifest and Land Disposal Restriction notification. The manifests and Land Disposal Restriction notices identify all applicable waste codes for each waste.

C-3a(10) Dilution and Aggregation of Wastes

FCC does not dilute any restricted wastes as a substitute for treatment. Restricted wastes which have the required heating values are comingled prior to incineration or within the incinerator. No wastes which are characteristic for any metal are incinerated.

C-3b Notification, Certification, and Recordkeeping Requirements

C-3b(1) Retention of Generator Notices and Certifications

Wastes generated at FCC that are sent off-site for treatment/disposal without onsite treatment are characterized using proces knowledge and are presumed not to meet land Disposal Restriction. The off-site treatment/disposal facility is provided a one-time notification that the waste may or may not meet the treatment standards, and that they are responsible for making the determination. A copy of the notification is retained in FCC's files, along with the documentation used for making the hazardous waste determination using process knowledge.

No further notifications or certifications are made until such time as the waste or the receiving facility change.

C-3b(2) Notification and Certification Requirements for Treatment Facilities

FCC operates a permitted hazardous waste incinerator. Residues from the incinerator are sent off-site for further treatment. The Land Disposal Restrictions notice and certification requirements for waste generators are followed for these wastes. In addition, when characteristic ignitable wastes are treated in the onsite incinerator to remove the characteristic, the facility receiving the residues are provided with the required certification regarding decharacterization and the presence of underlying hazardous constituents. A copy of each certification is retained in FCC's files.

No further notifications or certifications are made until such time as the waste or the receiving facility change.

C-3b(3) Notification and Certification Requirements for Land Disposal Facilities

Not applicable. No land disposal at the FCC facility.

C-3b(4) Waste Shipped to Subtitle C Facilities

Not applicable. FCC is not a recycler.

C-3b(5) Waste Shipped to Subtitle D Facilities

Not applicable

C-3b(6) Recylable Materials

Not applicable

C-3b(7) Record Keeping

FCC maintains records to document all notifications and certifications necessary for compliance with LDR requirements.

C-3c Requirements pertaining to the Storage of Restricted Wastes

C-3c(1) Restricted Wastes Stored in Containers

Not applicable. Less than 90 day storage of containers at FCC in compliance with parts 262.34 and 265.

C-3c(2) Restricted Wastes Stored in Tanks

FCC stores restricted waste generated on-site in permitted storage tanks for the purpose of accumulating such quantities of hazardous waste as necessary to facilitate proper treatemnt of the waste in the on-site permitted incinerator. The facility operating record contains the required information to identify the wastes stored in each tank, and information on the quantities and dates of storage and discharge to treatment.

C-3c(3) Storage of Liquid PCB Wastes

Not applicable. PCB wastes are not stored.

C-3d Exemptions, Extensions, and Variances to Land Disposal Restrictions

Not applicable

ATTACHMENT II.2.

PROCEDURES TO PREVENT HAZARDS AND SECURITY PROVISIONS

SECTION F

PROCEDURES TO PREVENT HAZARDS

F-1 Security

F-1a Security Procedures and Equipment

In addition to the general security provisions of fencing, gates, and guards, several other features contribute to the safety and security of the facility. Ample lighting is provided throughout the site. All operators are equipped with hand-held, two-way radios which are used in their normal functions to communicate with coworkers and supervisors. These radios also provide methods to report or respond to unusual or upset conditions immediately. In addition to the two-way radios carried, an internal telephone system is accessible throughout the facility. The telephone system also provides communication services outside the plant boundaries. All visitors must sign-in with the guard posted at the main entrance or with the receptionist located in the administration building.

F-1a(1) 24-Hour Surveillence System

First Chemical Corporation employs a security service for 24-hour surveillance of the facility. These security personnel monitor the ingress and egress of all traffic (pedestrian and motorized) in and around the facility.

F-1a(2)a Barrier

In addition to the 24-hour surveillance and security system, First Chemical has constructed fences and gates to prevent the unknowing entry of personnel onto the facility. The fence is a six-foot tall, galvanized chain-link fence completely surrounding the site. There are two (2) personnel gates, two (2) motor vehicle gates and one (1) railroad gate. The main traffic gate is manned 24-hours per day, the construction gate is manned during contractor's hours and all other gates are kept locked except during use, at which time they would be temporarily manned while unlocked.

F-1a(2)b Means to Control Entry

Access to First Chemical is directly from Highway 611 (Industrial Road). The main entrance is monitored by the security force 24 hours per day. Entrances to the employee and visitor parking areas are separated from the main entrance to the plant so that only approved traffic can enter the plant. All gates other than the main entrance are kept locked unless they are in use. When in use, these gates are either manned by security or are under the direct observation of personnel working in that area.

F-1a(3) Warning Signs

Warning signs indicating that only authorized personnel are permitted on the premises are posted at the entrances to the facility. Additionally, "no smoking" signs are posted throughout the plant. These signs are legible from a distance of 25-feet and are visible from all angles of approach.

F-1(b) Waiver

First Chemical does not seek a waiver to the security provisions.

F-2 Inspection Schedule

First Chemical personnel conduct regular inspections of the facility and equipment. Attachment F -1 is a copy of the inspection schedule.

F-2a General Inspection Requirements

Routine inspections of First Chemical facilities are made to detect equipment malfunctions, structural deterioration, operator errors, and discharges that could cause or lead to the release of hazardous waste constituents and adversely affect the environment or threaten human health.

F-2a(1) Types of Problems

First Chemical has made an extensive effort to create and implement an inspection procedure that will detect any possible errors that may occur. The items listed in Attachment F-1 are considered important because of their role in preventing, detecting or responding to environmental or human health hazards.

F-2a(2) Frequency of Inspections

Also provided in Attachment F-1 is the frequency of inspection for each item. This inspection frequency is based on the rate of possible deterioration of equipment and the probability of an environmental or human health incident if the deterioration, malfunction, or operator error goes undetected between inspections.

F-2a(3) Schedule of Remedial Actions

If feasible, all remedial actions will be conducted within 24 hours of discovery. A Remedial Action Schedule will be developed, that tracks the required work tasks, within 12 hours for any required remedial actions that cannot be completed within the initial 24 hour timeframe. Daily or weekly progress reports will be presented to the Environmental Coordinator from the personnel responsible for completing the remedial actions. The Environmental Coordinator will determine the frequency of the progress reports based on the potential to impact human health or the environment, expected time of completion and any other factors determined to be significant.

F-2a(4) Inspection Log

Appropriate Inspection Log Templates are included as Attachment F-1.

F-2b Specific Process Inspection Requirements

First Chemical will conduct the following inspections as required by federal and state regulations (see Attachment F-1). Each inspection will be documented in the facility's operating record.

F-2b(1) Container Inspection

First Chemical is not seeking a permit for hazardous waste storage in containers.

F-2b(2) Tank System Inspection

First Chemical will visually inspect the following once each operating day:

- waste feed cutoffs for tanks in continuous flow service, including associated liquid level transmitters;
- liquid high level alarms for tanks in batch service, including associated liquid level transmitters;
- tank temperature indicators;
- surface of containment floors for corrosion and leaks;
- other visible signs of releases of hazardous waste;
- pumps and aboveground piping for leaks.

In the event that a tank requires entry, First Chemical has developed a tank-entry procedure to ensure the safe execution of this operation.

F-2b(2)(a) Tank System and External Corrosion

First Chemical will visually inspect the above ground portion of the tank for corrosion and inspect the containment floor for leaks on a daily basis. Additionally, integrity tests will be performed on the waste tanks in accordance with the Schedule presented in Section D of this application.

F-2b(2)(b) Tank System Construction Materials and Surrounding Area

First Chemical will visually inspect the tanks system construction materials and the area around the external portions of the system for a release of hazardous waste on a daily basis.

F-2b(2)(c) Tank System Overfilling Control Equipment

The overfill control equipment will be inspected in accordance with the schedule in Attachment F-3 (Inspection Schedule).

F-2b(2)(d) Tank System Monitoring and Leak Detection Equipment

First Chemical will analyze the data gathered from monitoring equipment to ensure the tank is operating according to design standards in accordance with the schedule in Attachment F-1 (Inspection Schedule).

F-2b(2)(e) Tank System Cathodic Protection

First Chemical will inspect the tank system cathodic protection in accordance with the schedule in Attachment F-1 (Inspection Schedule).

F-2b(3) Waste Pile Inspection

First Chemical is not seeking a permit for hazardous waste management in waste piles.

F-2b(4) Surface Impoundment Inspection

First Chemical is not seeking a permit for hazardous waste management in surface impoundments.

F-2b(5)(a) Incinerator and Associated Equipment

The incinerator is operated seven days per week, 24-hours per day and is under constant observation by the operators in that area. Attachment F-1 contains the items to be inspected, tested and monitored; and the schedule by which these services are performed.

F-2b(5)(b) Incinerator Waste Feed Cutoff System and Alarm

Attachment F-1 contains the items related to the waste feed cutoff system and alarm to be inspected, tested and monitored; and the schedule by which these services are performed.

F-2b(6) Landfill Inspection

First Chemical is not seeking a permit for hazardous waste disposal in a landfill.

F-2b(7) Land Treatment Facility Inspection

First Chemical is not seeking a permit for hazardous waste treatment in a land treatment unit.

F-2b(8) Miscellaneous Unit Inspections

First Chemical is not seeking a permit for hazardous waste management in miscellaneous units.

F-2b(9) Boilers and Industrial Furnaces (BIF) Inspection

First Chemical is not seeking a permit for hazardous waste disposal in a boiler and industrial furnace.

F-2b(10) Containment Building Inspection

First Chemical is not seeking a permit for hazardous waste management in a containment building.

F-2b(11) Drip Pad Inspection

First Chemical is not seeking a permit for hazardous waste management on a drip pad.

F-3 Waiver or Documentation of Preparedness and Prevention Requirements

First Chemical is not seeking a waiver of preparedness and prevention requirements.

F-3(a) Equipment Requirements

First Chemical maintains a variety of emergency equipment including, but not necessarily limited to, internal communication devices, external communication devices, spill response equipment and firefighting equipment. First Chemical employees have received training and participate in continuing education programs in the use and application of this equipment. First Chemical has developed programs and procedures on the proper response to on-site emergencies. Specific equipment information is discussed below.

F-3(a)(1) Internal Communication

Internal communications systems utilized by First Chemical include conventional telephones, cell phones, hand-held, two-way radios and the plant-wide alarm system. Through the use of this equipment, all employees can be contacted or otherwise informed of actual or potential emergencies.

F-3(a)(2) External Communication

First Chemical utilizes the telephone system for external communications. Additionally, cell phones and hand-held, two-way radios can be used as a backup to the phone system for communicating with local agencies.

F-3(a)(3) Emergency Equipment

Fire control equipment is located strategically throughout the site. This equipment includes Types A, B, and C fire extinguishers, fixed fire monitors, and fixed foam applicators. The fire monitors receive water from an on-site fire water tank and the monitors can be quickly adapted for foam application.

First Chemical maintains a supply of various types of spill control equipment. This equipment includes, but is not necessarily limited to, absorbent pigs, blankets and booms; application equipment such as brooms and shovels; and pumps. Arrangements are in place with local contractors in the event additional resources are required. Likewise, First Chemical maintains a supply of equipment that would be used to decontaminate areas or structures impacted by a spill. This equipment includes personal protective equipment (PPE), high pressure water and steam. Safety showers are located at selected areas.

F-3(a)(4) Water and Fire Control

Water for fire control is provided through the Jackson County industrial water supply or the on-site fire water supply tank equipped with an auxiliary powered pump in the event of electrical power loss. The fire monitors are designed to be operated either in a water-only mode or with foam supply. Fixed-foam applicators are also utilized in selected areas based on the operations and types of materials used in that area.

F-3(a)(5) Testing and Maintenance of Equipment

The communications system, alarm, fire control equipment, spill control equipment, and decontamination equipment are tested semi-annually in accordance with the schedule in Attachment F-1 and maintained as needed.

F-3(a)(6) Access to Communication or Alarm System

When waste is being transferred, all personnel have access to the internal alarm or a communication device.

F-3(b) Aisle Space Requirement

Adequate aisle space is maintained to allow the unobstructed movement of personnel, firefighting equipment and spill control equipment to any area of the facility.

F-3(c) Documentation of Arrangements with:

F-3(c)(1) Police/Fire Department

First Chemical has provided the Pascagoula Fire Department and Police Department with copies of the facility's contingency plan which identifies the types of hazardous wastes, which are managed on site and the associated hazard potentials. Copies of the transmittal letters to the Police and Fire Department requesting their review of the contingency plan are included in Attachment F-2.

F-3(c)(2) Emergency Response Teams

First Chemical has provided the Jackson County Emergency Management Agency (EMA) and U.S. Environmental Services (USES), an emergency response contractor, with copies of the facility's contingency plan which identifies the types of hazardous wastes, which are managed on site and the associated hazard potentials. Copies of the transmittal letters to the Jackson County EMA and USES requesting their review of the contingency plan are included in Attachment F-2.

F-3(c)(3) Local Hospital

First Chemical has provided the Singing River Hospital, with a copy of the facility's contingency plan which identifies the types of hazardous wastes, which are managed on site and the associated

hazard potentials. A Copy of the transmittal letter to the Singing River Hospital requesting their review of the contingency plan is included in Attachment F-2.

F-3(c)(4) Document Agreement Refusal

All of the coordination agreements with the local fire and police departments, the emergency response teams and the local hospital are in place. None of the agreements were refused.

F-4 Prevention Procedures, Structures and Equipment

F-4(a) Unloading Procedures

All loading and unloading areas are curbed and sloped so that if a leak were to occur during loading or unloading operations, the leak would be contained.

F-4(b) Runoff

Hazardous waste storage tanks are located within secondary containment structures to prevent the runoff of potentially contaminated water. Water collected within the secondary containment structures is treated with other wastewater and discharged through a permitted outfall.

F-4(c) Water Supplies

First Chemical is not located in an area where operations would affect a water supply.

F-4(d) Equipment and Power Failure

In the event of a power interruption, all wastes being fed to the incinerator will be automatically shut off and all continuing incinerator operations will be shut down manually. First Chemical maintains a supply of auxiliary powered generators, pumps and compressors that would be used to power and support critical operations.

F-4(e) Personnel Protection Procedures

First Chemical has prepared programs and procedures, supported by an extensive PPE database, to ensure that employees are fitted with the appropriate PPE to protect against hazards associated with the work assignment. This includes, but is not necessarily limited to, gloves, suits, shoes and respiratory protection. Additionally, all employees are respirator fit tested and recertified annually.

F-4(f) Procedures to Minimize Releases to the Atmosphere

In the event of a release, all wastes being fed to the incinerator will be automatically shut off and all continuing incinerator operations will be shut down manually thereby minimizing any releases to the atmosphere.

F-5 Prevention of Reaction of Ignitable, Reactive and Incompatible Waste

F-5(a) Caution to Prevent Ignition or Reaction of Ignitable or Reactive Waste

All hazardous waste treated at First Chemical is generated on site. No off-site waste is accepted from others for treatment. All wastes generated are evaluated using process knowledge and the guidelines in MHWMR 260.10 and MHWMR 265 Appendix V to ensure that incompatibles are not comingled.

The incinerator waste feed storage tanks are the only tanks in which ignitable hazardous wastes are stored. No reactive wastes are stored. The wastes are compatible with the tank's material of construction.

First Chemical has a safety program in place to ensure that all activities are performed in a manner that will prevent personal injury, damage to equipment and unauthorized discharges to the environment. Specific efforts have been made to minimize ignition sources around ignitable or combustible waste materials. Since the waste feed system is entirely closed, the risk of accidental ignition is minimized. Smoking is not permitted in any of the operating areas of the plant. All of the systems are properly grounded and "hot" work such as welding is performed only after an extensive safety evaluation is performed and a special permit is issued. Operating directives, safety directives and contingency plans have been developed to prevent situations from occurring which could generate extreme heat, cause spontaneous ignition, or cause electrical, static, or mechanical sparking.

F-5(b) General Precautions for Handling Ignitable or Reactive Waste and Mixing of Incompatible Waste

First Chemical does not manage reactive wastes in the permitted tanks. All waste streams in the incinerator waste feed treatment stream are ignitable. The incinerator waste feed waste streams are delivered into storage via enclosed piping systems from the process areas to reduce the risk of accidental ignition. No smoking or open flames are permitted in the operating areas of the facility. All heat producing "hot" work requires a special permit that is issued only after an extensive safety evaluation of the work and work area is performed.

F-5(b)(1) Documentation of Adequacy of Procedures

Procedures at FCC for managing ignitable wastes are in conformance with all requirements of the NFPA code. FCC is routinely inspected by representatives of its insurance carrier to identify any issues related to the management of ignitable wastes. FCC has an ongoing waste analysis program to identify any changes in the wastes being managed, and a detailed safety program to prevent accidental ignition of hazardous wastes.

F-5(c) Management of Ignitable or Reactive Wastes in Containers

First Chemical is not seeking a permit for hazardous waste storage in containers.

F-5(d) Management of Incompatible Wastes in Containers

First Chemical is not seeking a permit for hazardous waste storage in containers.

F-5(e) Management of Ignitable or Reactive Wastes in Tank Systems

First Chemical does not seek a permit for the storage of reactive wastes in tanks. The wastes streams that make up the incinerator waste feed stream are ignitable. First Chemical has a safety program in place to ensure that all activities are performed in a manner that will prevent personal injury, damage to equipment and unauthorized discharges to the environment. Specific efforts have been made to minimize ignition sources around ignitable or combustible waste materials. Since the waste feed system is entirely closed, the risk of accidental ignition is minimized. Smoking is not permitted in any of the operating areas of the plant. All of the systems are properly grounded and "hot" work such as welding is performed only after an extensive safety evaluation is performed and a special permit is issued. Operating directives, safety directives and contingency plans have been developed to prevent situations from occurring which could generate extreme heat, cause spontaneous ignition, or cause electrical, static, or mechanical sparking. The storage tanks are located well within the property boundaries and sufficient spacing from adjacent operations or storage tanks has been provided to meet NFPA buffer zone requirements.

F-5(f) Management of Incompatible Wastes in Tank Systems

First Chemical does not store incompatible wastes in the same tank or in an unwashed tank that previously held an incompatible waste or material.

F-5(g) Management of Ignitable or Reactive Wastes Placed in Waste Piles

First Chemical is not seeking a permit for hazardous waste management in waste piles.

F-5(h) Management of Incompatible Wastes Placed in Waste Piles

First Chemical is not seeking a permit for hazardous waste management in waste piles.

F-5(i) Management of Ignitable or Reactive Wastes Placed in Surface Impoundments

First Chemical is not seeking a permit for hazardous waste management in surface impoundments.

F-5(j) Management of Incompatible Wastes Placed in Surface Impoundments

First Chemical is not seeking a permit for hazardous waste management in surface impoundments.

F-5(k) Management of Ignitable or Reactive Wastes Placed in Landfills

First Chemical is not seeking a permit for hazardous waste disposal in a landfill.

F-5(l) Management of Incompatible Wastes Placed in Landfills

First Chemical is not seeking a permit for hazardous disposal in a landfill.

F-5(m) Management of Ignitable or Reactive Wastes Placed in Land Treatment Units

First Chemical is not seeking a permit for hazardous waste management in a land treatment unit.

F-5(n) Management of Incompatible Wastes Placed in Land Treatment Units

First Chemical is not seeking a permit for hazardous waste management in a land treatment unit.

F-5(o) Management of Incompatible Wastes Placed in Containment Buildings

First Chemical is not seeking a permit for hazardous waste management in a containment building.

ATTACHMENT II.3.

INSPECTION SCHEDULE

TK-1057
K104 Hazardous Waste Daily Tank Impoundment Inspection Checklist

Month _____

x Unsatisfactory - Satisfactory

ITEMS INSPECTED	Mon	Tues	Wed	Thur	Fri	Sat	Sun	Remarks / Remedial Action **(Must comment if any item is marked unsatisfactory)**
Date								
Time								
Check dikes to ensure no liquid level is present. If liquid is present, pump dike								
Check presure and temperature guages, liquid level transmitters								
Runoff collection and removal systems								
Dikes cracks/deterioration								
Bases of Impoundment Erosion; Uneven settling; cracks and spalling in cement pads; base rings and piers; deterioration of water seal between tank bottom and foundation; wet spots								
Pump and associated piping for leaks or other damage								
Tank for signs of corrosion and/or leaks								
Inspectors Signature								
Supervisors Signature								

Superintendent Signature _____

CHECK THE ABOVE DAILY AND RECORD DISCREPANCIES AND MAINTENANCE.
(Continue remarks on the back of this sheet if necessary.)
FORWARD TO THE ENVIRONMENTAL DEPARTMENT EACH WEEK

2201-003-21-436
EHS File #4.6.1.1

TK-1402 (Aniline)
Hazardous Waste Daily Tank Inspection Checklist

Month:_____

-Satisfactory x Unsatisfactory

Items to be Inspected	Mon	Tues	Wed	Thurs	Fri	Sat	Sun	Remarks/Remedial Action
Date:								
Time:								
Inspect tank(s) freeboard level to ensure 2 feet of freeboard								
Waste feed cut-off, bypass and drainage systems								
Check valves and fittings for leaks								
Check pressure and temperature gauges, liquid level transmitters								
Runoff collection and liquid removal systems								
Tank Level								
Inspector's Initials:								

Supervisor's Initials: _____

Superintendent's Initials: _____

*Check the above information daily and record discrepancies and maintenance
**Continue remarks on back of page if necessary

TK-1058, 1059, & 1060
K083 Hazardous Waste Daily Tank Impoundment Inspection Checklist

Month _____

x Unsatisfactory - Satisfactory

ITEMS INSPECTED	Mon	Tues	Wed	Thur	Fri	Sat	Sun	Remarks / Remedial Action **(Must comment if any item is marked unsatisfactory)**
Date								
Time								
Check dikes to ensure no liquid level is present. If liquid is present, pump dike								
Check presure and temperature guages, liquid level transmitters								
Runoff collection and removal systems								
Dikes cracks/deterioration								
Bases of Impoundment Erosion; Uneven settling; cracks and spalling in cement pads; base rings and piers; deterioration of water seal between tank bottom and foundation; wet spots								
Pump and associated piping for leaks or other damage								
Tank for signs of corrosion and/or leaks								
Inspectors Signature								
Supervisors Signature								

Superintendent Signature _____

CHECK THE ABOVE DAILY AND RECORD DISCREPANCIES AND MAINTENANCE.

(Continue remarks on the back of this sheet if necessary.)

FORWARD TO THE ENVIRONMENTAL DEPARTMENT EACH WEEK

2201-003-21-435

EHS File #4.6.1.3

K104/U220 (PICRIC)
HAZARDOUS WASTE TANK/ IMPOUNDMENT
OPERATING AND STRUCTURAL EQUIPMENT LOGSHEET
TK-1057

INSPECTOR'S NAME/SIGNATURE_____/ _____
DATE OF INSPECTION_____**(MONTH/DAY/YEAR)**
TIME OF INSPECTION_____**(MILITARY TIME)**

ITEM	TYPES OF PROBLEMS	STATUS ACCEPTABLE	STATUS UNACCEPTABLE	REMARKS (must comment & provide description if any item is marked unacceptable) REMEDIAL ACTION TAKEN AVO No.
SUMP PUMPS (Automatic)	Setting adjustment Power clogging			
DOUBLE WALL SUMP (Visual/rod with dry rag in the inspection port)	Inner wall failure - liquid present in between the two walls. Cap has been replaced on inspection port.			
DIKES	Cracks, Deterioration			
BASES OF IMPOUNDMENT	Erosion: Uneven settlement; Cracks and spalling in cement pads; Base rings and piers; Deterioration of water seal between tank bottom and foundation; wet spots			
VALVES	Inoperable			
TANK STRUCTURAL SUPPORTS	Concrete deterioration and Cracking. Corrosion of pipe supports			
PIPING TO HOLDING TANKS* (SEE NOTE BELOW)	Leaks, corrosion of pipe supports			
HOLDING TANKS	Corrosion, discoloration, cracks, buckles, and bulges			

*NOTE: Inspect piping from process units to TK-1057 AND the line going to the noxidizer up until the vertical run in the rack on the northeast corner of the lagoon

INSPECTION IS TO BE PERFORMED ONCE A WEEK. (Saturday)
FORWARD TO ENVIRONMENTAL DEPARTMENT EACH WEEK.
2201-003-21-441

TK-1058, 1059, & 1060 - K083
HAZARDOUS WASTE WEEKLY TANK/ IMPOUNDMENT
OPERATING AND STRUCTURAL EQUIPMENT LOGSHEET

INSPECTOR'S NAME/TITLE_____/ _____
DATE OF INSPECTION_____(MONTH/DAY/YEAR)
TIME OF INSPECTION_____(MILITARY TIME)

ITEM	TYPES OF PROBLEMS	STATUS ACCEPTABLE	STATUS UNACCEPTABLE	REMARKS (must comment & provide description if any item is marked unacceptable) REMEDIAL ACTION TAKEN AVO No.
SUMP PUMPS (Automatic)	Setting adjustment Power clogging			
DOUBLE WALL SUMP (Visual/rod with dry rag in the inspection port)	Inner wall failure - liquid present in between the two walls. Cap has been replaced on inspection port.			
DIKES	Cracks, Deterioration			
BASES OF IMPOUNDMENT	Erosion: Uneven settlement; Cracks and spalling in cement pads; Base rings and piers; Deterioration of water seal between tank bottom and foundation; wet spots			
VALVES	Inoperable			
TANK STRUCTURAL SUPPORTS	Concrete deterioration and Cracking. Corrosion of pipe supports			
PIPING TO HOLDING TANKS* (SEE NOTE BELOW)	Leaks, corrosion of pipe supports			
HOLDING TANKS	Corrosion, discoloration, cracks, buckles, and bulges			

*NOTE: Inspect piping from process units to TK-1060 AND the line going to the noxidizer up until the vertical run in the rack on the northeast corner of the lagoon

INSPECTION IS TO BE PERFORMED ONCE A WEEK. (Saturday)
FORWARD TO ENVIRONMENTAL DEPARTMENT EACH WEEK.

2201-003-21-440

Printed on 2/6/2016

EHS File #4.6.1.4

TK-1402 (Aniline)
Hazardous Waste Weekly Tank Inspection Checklist
Operating and Structural Equipment Inspection Log Sheet

Date of Inspection : _____ (mm/dd/yyyy)
Time of Inspection:_____ (24 hr time)
Inpector's Name: _____
Superivsor: _____
Superintendent: _____

Items to be Inspected	Types of Problems	Status		Remarks/Remedial Action (AVO#)
		acceptable	unacceptable	
Sump Pumps (automatic)	Setting adjustment Power clogging			
Secondary Containment	Uneven settling; cracks; deterioration of water seal; wet spots			
Valves	Inoperable			
Tank Structural Supports	Conrete deterioration and cracking; corrosion of pipe supports			
Piping to Tanks	Leaks; corrosion of pipe supports			
Tanks	Corrosion; discoloration; cracks; buckles; bulges			
Waste Feed Cut-off Check				

Incinerator
Daily Inspection Checklist

Month _____

x Unsatisfactory - Satisfactory

ITEMS INSPECTED	Mon	Tues	Wed	Thur	Fri	Sat	Sun	Remarks / Remedial Action **(Must comment if any item is marked unsatisfactory)**
Date								
Time								
Inspect valves, flanges, gauges, and piping for leaks								
Sump pumps for setting, adjustment, power, clogging								
Dikes for cracks, deterioration								
Bases of foundations for erosion and cracks								
Valves (inoperable)								
Piping and fittings to incinerator for leaks, corrosion, or deterioration* **(SEE NOTE BELOW)**								
Listen for unusual noises at blowers, burner and in general locale of incin.								
Check instrument reading (for correct readings)								
Check for spills								
Check for fugitive emissions (cracks/exhaust gases)								
Inspectors Signature								
Supervisors Signature								

Superintendent Signature _____

***NOTE: Inspect both the #1 & #2 waste feed lines from the vertical run of piping in the rack at the northeast side of the lagoon to the noxidizer**

**Check the above information daily and record discrepancies and maintenance. Continue remarks on back of page if necessary.

Printed on 2/7/2016

2201-003-21-214
EHS File #4.6.1.7

STACK FLOW TRANSMITTER CALIBRATION – WEEKLY BASIS

First Chemical's NOXIDIZER operating permit requires that specific intrumentation be calibrated on a routine basis. Calibration sheets must be completed on basis indicated and kept on file.

THE CALIBRATION PROCEDURE FOR THE STACK GAS FLOW IS AS FOLLOWS:

MONITOR: DIETERICH STANDARD ANNUBAL MODEL DFF-45

PROCEDURE for ANNUBAR: Once per year, remove and inspect for mechanical problems, such as erosion, nicks on hole edges and hole plugging. Clean and repair as necessary.

PROCEDURE for D/P CELL: Replace D/P CELL WEEKLY with shop calibrated unit. Shop calibration is to be done at zero. Span / Mid-range accuracy of +/- 0.1" wc is required in calibration standard.

Instrument No. & Description	**DATE**	**INITIALS**	**CALIBRATION VALUE INCHES H_20 @**			**INSTALL DATE**
			4mA	**12mA**	**20mA**	
Stack Flow Transmitter FT-161 Rosemount Model 1151DR2F12B1 Range 0-0.5/6" wc Setting 1.54" wc						
Comments:						

Supervisor: _____

Superintendent:_____

Thermocouple Calibration _____ Weekly Basis

Instrument Number & Description	Date & Time	Initials	Reading	Delta T	T< 50°F Yes or No	Comments
Reduction Furnace Temperature Recorder TR-1041						
Reduction Furnace Temperature Indicator TI-105						
Re-Ox Furnace Temperature Recorder TR-1201						
Re-Ox Furnace Temperature Indicator TI-121						

Supervisor: _____

Superintendent: _____

EPA Checklist – Energy Recovery Unit

Instrument Name & Tag No.	Type	Instrument Span	Switch Set Point	Test Signal		Date	Initials	Door Bypassed		Test Result		Loop Returned to Service	Loop Out of Service	Comments
				Initial	Final			W S/D	W/O	Pass	Fail			
Burner Flame Scanner BSL-100	Digital	NA	NA	Circuit Closed	Circuit Open									
Burner Flame Scanner BSL-101	Digital	NA	NA	Circuit Closed	Circuit Open									
Fuel Gas Pressure Switch High PSH-301A	Smart	0-40 Psig	15 Psig	37.7%	37.59%									
Fuel Gas Pressure Switch High PSH-312A	Smart	0-40 Psig	30 Psig	74.8%	75.0%									
Waste No. 1 Pressure Switch Low PSL-601A	Smart	0-100 Psig	60 Psig	60.2%	60.0%									
Waste No. 2 (K104) Pressure Switch Low PSL-601A	Smart	0-100 Psig	60 Psig	60.2%	60.0%									
Atomizing Steam #1 Pressure Switch Low PSL-502A	Smart	0-200 Psig	125 Psig	62.7%	62.5%									
Atomizing Steam #2 Pressure Switch Low PSL-512A	Smart	0-200 Psig	125 Psig	62.7%	62.5%									
Combustion Air Blower Pressure Switch Low PSL-201A	Smart	0-40" H_2O	2" H_2O	5.2%	5.0%									
RE-OX Air Blower Pressure Switch Low PSL-211A	Smart	0-20" H_2O	1" H_2O	5.2%	5.0%									
Waste No. 1 (K083) Flow Switch Rolling Average FSH-603A	Analog	0-1000 LB/HR	950 LB/HR	18.00 MA	18.08 MA									
Waste No. 2 (K104) Flow Switch Rolling Average FSH-623A	Analog	0-1000 LB/HR	950 LB/HR	18.00 MA	18.08 MA									
Reduction Furnace Temp. Switch Low TSL-1041 (Instantaneous)	Analog	0-3100°F	2190°F	15.6 MA	15.3 MA									

Supervisor:_____

Superintendent:_____

INDIVIDUAL & COMBINATION WASTE FEED SHUTDOWN

Shutdown	Waste #1	Date	Time	Initials
Wastefeed #1 Low Pressure PSL-1105				
Wastefeed #1 Low Atomizing Steam Pressure PSL-1106				
Wastefeed #1 High Flow FSH-1101				

Shutdown	Waste #2	Date	Time	Initials
Wastefeed #2 Low Pressure PSL-1108				
Wastefeed #2 Low Atomizing Steam Pressure PSL-1109				
Wastefeed #2 High Flow FSH-1102				

Shutdown	Waste #1&2	Date	Time	Initials
Reduction Furnace Low Rolling Avg. Temperature TSL-1104A				
REOX Chamber Low Rolling Avg. Temperature TSL-120A				
REOX Chamber Low Instantaneous Temperature TSL-120I				
Stack Gas High Instantaneous Co-Concentration ASH-167				
Stack Gas High Average Co Concentration ASH-1106				
Combustion Flow High Flow FSH-1106I				
High Bag House Inlet Temp TT-1111C				
High Bag House D/P PDTH-1111				
Low Bag House D/P PDTL-1111				

Supervisor _____
Superintendent _____

SYSTEM SHUTDOWN

Shutdown	Waste #1	Date	Time	Initials
Flame Failure (Both Sensors Tripped) BSL-100/BSL-101				
Fuel Gas Low Pressure PSL-301				
Fuel Gas High Pressure PSH-312				
Combustion Air Low Pressure PSL-201A				
REOX Air Low Pressure PSL-211A				
Reduction Furnace High Temperature TSH-104A				
Quench Section High Temperature TSH-111				
REOX Chamber High Temperature TSH-102A				
Steam Drum Low Level LSU-138A				
Stack Gas High Temperature TSH-160A				
Stack Oxygen Low Average ASL-165				

Supervisor: _____

Superintendent: _____

HAZARDOUS WASTE CONTAINERS STORAGE AREA
WEEKLY INSPECTION LOG SHEET

Month: _____

Inspector should intial below date

Date/ Initials	Number of Containers in Storage	Leaks (yes/no)	Deterioration (yes/no)	Containers Closed (yes/no)	Containers Labeled 'Hazardous Waste'	Accumulation Start Dates < 90 days	Remarks/Remedial Action

Inspections are to be made weekly and FORWARDED TO THE ENVIRONMENTAL DEPARTMENT EACH MONTH

Note: During every inspection, check each drum for accumulation dates t ensure it has not been stored over 90 days.

If a drum has been stored over 70 days or is not labeled 'Hazardous Waste,' notify the Environmental Supervisor immediately.

COVER INSPECTION LOG - FORMER POND 3

FIRST CHEMICAL CORPORATION - PASCAGOULA, MISSISSIPPI

Inspection Date & Time: __MAy. 01, 2013_1300_____ Weather Conditions: cloudy_Overcast light rain 73 Degrees F.____

SEMI-ANNUAL INSPECTION	OK	OBSERVATIONS	REPAIR DATE	NATURE OF REPAIRS
1. CONDITION OF ACCESS CONTROL (ROADS, FENCES & GATES	OK	Good		
2. CONDITION OF PROTECTIVE VEGETATION	OK	Good		
3. EVIDENCE OF EROSION CRACKING OR SEEPAGE	OK	None		
4. CONDITION OF SLOPES	OK	Good		
5. EVIDENCE OF SUBSIDENCE	OK	None		
6. EVIDENCE OF SETTLEMENT OR BURROWING ANIMAL DAMAG	OK	None		
7. CONDITION OF DRAINING CONTROL	OK	Good		
8. OTHER (DISTURBANCE OF COVER DUE TO DROUGHT, COLD, TRAFFIC, ETC)	OK	None		

Notes

* A signature and date must be included by the observer at the bottom of this form.
* Attach separate sheet (if necessary) to record observations and/or nature of repairs
* Maintain for three (3) years from date of inspection

Inspected by: Dave Clark

ATTACHMENT II.4.

PERSONNEL TRAINING

SECTION H

PERSONNEL TRAINING

H-1 Outline of Introductory and Continuing Training Programs

The following is an outline of training elements that are used to select hazardous waste training topics. The actual training sessions are customized to the specific needs of those being trained. Additional subjects may be incorporated into the training program as the particular need arises.

RCRA ANNUAL TRAINING

I. BACKGROUND

A. RCRA / 1976 / TO PROTECT HUMAN HEALTH AND THE ENVIRONMENT FROM THE POTENTIAL HAZARDS OF WASTE DISPOSAL

1. SOIL
2. GROUNDWATER
3. AIR

B. REQUIRES GENERATORS & PERMITTED FACILITIES TO CONDUCT TRAINING ON THE PROPER MANAGEMENT OF WASTES

1. REGULATIONS REQUIRE TRAINING OF PERSONNEL WHO ROUTINELY HANDLE HAZARDOUS WASTE
2. FCC POLICY TO TRAIN OPERATIONS PERSONNEL AS PART OF THE MONTHLY TRAINING PROGRAMS
3. TRAINING IS REQUIRED ANNUALLY
4. NEW EMPLOYEES CANNOT WORK AROUND HAZARDOUS WASTE UNSUPERVISED UNTIL THEY HAVE RECEIVED TRAINING

C. WHAT IS HAZARDOUS WASTE?

1. CHARACTERISTICS
    a. IGNITABLE
    b. CORROSIVE
    c. REACTIVE
    d. TOXIC

2. LISTED
    a. K-LISTED (SPECIFIC SOURCES)
    b. F-LISTED (NONSPECIFIC SOURCES)
    c. P-LISTED (ACUTELY HAZARDOUS)
    d. U-LISTED (TOXIC WASTES)

3. FCC GENERATES K-LISTED WASTES (ANILINE & NITROBENZENE) AS WELL AS CHARACTERISTIC WASTES FROM OTHER SOURCES SUCH AS SPECIALTY CHEMICALS

II. GENERATORS

A. GENERATOR REQUIREMENTS

1. QUANTITY LIMITS
2. EPA ID NUMBER
3. ON-SITE QUANTITY ACCUMULATION LIMITS
4. ACCUMULATION TIME LIMITS
5. STORAGE REQUIREMENTS
6. OFF-SITE WASTE MANAGEMENT REQUIREMENTS
7. MANIFEST REQUIREMENTS
8. BIENNIAL REPORT (& ANNUAL REPORT) REQUIREMENTS
9. PERSONNEL TRAINING
10. CONTINGENCY PLAN / EMERGENCY PROCEDURES
11. DOT TRANSPORT REQUIREMENTS

B. CLASSIFICATION OF GENERATORS

1. CESQG; ≤ 100 kg/mo
2. SQG; 100 - 1000 kg/mo
3. LQG; ≥ 1000kg/mo

C. FCC IS A LQG AND A PERMITTED TSDF

1. TANK STORAGE
2. INCINERATOR

III. GENERAL FACILITY STANDARDS

A. FACILITY STANDARDS

1. EPA ID NO.
2. WASTE ANALYSIS
3. SECURITY

4. INSPECTION
5. TRAINING

B. PREPAREDNESS & PREVENTION

1. REQUIRED EQUIPMENT
2. TESTING AND MAINTENANCE OF THE EQUIPMENT

3. ACCESS TO COMMUNICATIONS / ALARM
4. AISLE SPACE
5. ARRANGEMENTS W/ LOCAL AUTHORITIES

C. CONTINGENCY PLAN & EMERGENCY PROCEDURES

1. PURPOSE OF CONTINGENCY PLAN
2. CONTENT OF CONTINGENCY PLAN
3. COPIES OF CONTINGENCY PLAN
4. AMENDMENT OF CONTINGENCY PLAN
5. EMERGENCY COORDINATOR
6. EMERGENCY PROCEDURES

D. MANIFEST SYSTEM, RECORD KEEPING & REPORTING

1. USE OF MANIFEST SYSTEM
2. MANIFEST DISCREPANCIES
3. OPERATING RECORD
4. RETENTION OF RECORDS
5. BIENNIAL (OR ANNUAL) REPORT

IV. CONTAINERS

A. DEFINITION - CONTAINERS CAN BE ANY SIZE BUT MUST BE PORTABLE / MOBILE

B. MANAGEMENT OF CONTAINERS

1. SUBJECT TO GENERAL FACILITY STANDARD

C. EMPTY CONTAINERS

1. DEFINITION: "RCRA-EMPTY"
2. RESIDUES FROM RCRA EMPTY CONTAINERS ARE EXEMPT FROM REGULATION

V. TANKS / TANK SYSTEMS

A. DEFINITION - STATIONARY RECEPTACLE MADE OF "MAN-MADE" MATERIALS (STEEL, FIBERGLASS, CONCRETE, ETC.)

B. NEW / EXISTING TANKS

C. INTEGRITY

1. DESIGN
2. MAINTENANCE
3. CORROSION PROTECTION
4. INSTALLATION (NEW TANKS / SYSTEMS)
5. CERTIFIED

D. SECONDARY CONTAINMENT

1. TYPES
    a. EXTERNAL LINER
    b. VAULT
    c. DOUBLE WALLED TANK
    d. ALTERNATIVE EQUIPMENT DEVICE

E. OPERATING STANDARDS

1. SPILL / OVERFILL PREVENTION
2. INSPECTIONS

H-1a Job Title/Job Description

It is the position of First Chemical that all operations personnel will receive training in hazardous waste management. First Chemical maintains records of all job titles in the Operations Department and the training received by each individual. The operations department has four (4) training sessions per month (approximately three hours each) in which attendance is mandatory. These training sessions are used as vehicles to pass on information to the operations personnel that may or may not be shift workers and is the most efficient way for all of the workers to hear the same message. It is through these training sessions that First Chemical also performs environmental training including instruction on hazardous waste management. In conducting comprehensive, site-wide training sessions, it is not necessary to track training completion by job titles or responsibilities since everyone receives the same training. Attendance to these sessions is recorded in a log book that contains a brief description of the subject matter and the signatures of each of the attendees. Additionally with respect to hazardous waste, a short subject "quiz" is administered following the presentation to further document participation and to ensure that there was general understanding of the subject material.

H-1b Description of How Training will be Designed to Meet Actual Job Tasks

All training will be conducted by qualified personnel knowledgeable of the applicable RCRA regulations. The content of individual training sessions may vary but the basis of the program will follow the outline recorded at the beginning of this section. For instance, the training session will typically begin with an overall view of RCRA and may include a brief case study of a real or conceptual event. The core of the training session will focus on some particular element of RCRA including, but not limited to, manifesting, identification of hazardous waste, management practices (containers, tanks, incinerator, etc.), contingency plan or emergency response. The emphasis of the training session will be on the site-specific impacts of the regulations and the importance of compliance.

Hazardous waste training is conducted at least once per year. New-hires are trained immediately and prior to their assignment to roles that involve hazardous waste activities. As previously stated, training sessions are conducted at least four (4) times per month and other training subjects frequently address hazardous waste issues, such as emergency response, pollution prevention or spill control. In other words, an employee may receive annual RCRA training but in actuality, that employee is receiving several training sessions per year addressing related topics.

The predominant training technique used is classroom instruction supplemented with audiovisual aids. On-the-job training is used continuously for all job functions including those involving the management of hazardous wastes. The training program will be reviewed annually by the Environmental Department and subsequent trainings will be modified based on those reviews.

H-1c Training Director

The training program(s) will be administered by a person trained and knowledgeable in the hazardous waste field and familiar with First Chemical's operations and procedures. The training director will have documented attendance at hazardous waste management seminars and training courses, on-the-job training and in-house training sessions.

H-1d Relevance of Training to Job Position

In addition to providing an overview of federal and state hazardous waste regulations, employees are trained on site-specific, facility standards such as security, waste analysis, inspection procedures, contingency planning and reporting requirements, as appropriate for specific job functions.

H-1e Training for Emergency Response

Emergency response training is provided to employees who might be expected to respond to an on-site emergency. This training is provided in a combination of on- and off-site training sessions, drills and classroom instruction. Additionally, actual emergency events are reviewed and critiqued to evaluate the effectiveness of the response. Contents of the training sessions include, but are not necessarily limited to, fire-fighting, spill response, spill containment, use of respirators and supplied air, first aid, rescue, decontamination and remedial waste management. Annually, FCC holds a full-scale drill in which all facets of community emergency response agencies are invited to participate, including the LEPC, hospitals, fire and rescue, police and media. This drill tests the full capabilities, resources and logistical support of the employees and community responders.

H-2 Maintenance of Training Records/Copy of Personnel Training Documents

No employee will engage in unsupervised work associated with hazardous waste management until that employee has completed the appropriate training. Training of appropriate personnel must be completed within 6 months after date of employment. Original training records are maintained by the Environmental Department with a duplicate copy maintained in the Safety Department. The record for hazardous waste training is maintained in two (2) ways. First, the employee records his/her signature in the general training log book which is maintained by the Safety Department. Second, a subject quiz is given following each hazardous waste training session. The quiz is signed by the employee and the completed quiz serves as the record for training and is maintained by the Environmental Department. A copy of the completed and signed quiz is sent to the Safety Department where it is also maintained as part of the official training record. All personnel training records will be maintained on-site until such time of facility closure.

ATTACHMENT II.5.

LOCATION STANDARDS

SECTION B

FACILITY DESCRIPTION

B-1 General Description

First Chemical Corporation (FCC) is a chemical manufacturing facility engaged in the production of industrial chemicals, intermediate chemicals, specialty chemicals and performance chemicals. The primary products manufactured by FCC are analine, nitrated aromatics, and aromatic amines. These processes produce two listed hazardous wastes- K083 and K 104. Wastes produced from these operations are managed in five storage tanks which are used to store waste materials prior to the waste being treated in the on-site liquid-injection incinerator. Detailed information on the operation of the regulated units is provided in Section D.

FCC is located at 1001 Industrial Road in the Bayou Cassotte Industrial Park, one mile east of the pascagoula city limits. The sit occupies a total of approximately 60 acres, of which 37 acres are currently developed with production and support facilities. The remaining 23 acres is undeveloped.

Past operations at the facility have resulted in groundwater contamination which is subject to RCRA groundwater corrective action. These activities are described in detail in Section E.

FCC has one closed wastewater treatment pond which has been certified closed in accordance with RCRA requirements, and is currently undergoing post-closure care as described in Section I.

B-2 Topographic Map

Figure B-1 is a reproduction from the 7.5 minute USGS topographic map for the area around Bayou Cassotte.

B-2a General Requirements

Figures B-2 through B-6 are facility maps providing information on the physical layout of the plant and surrounding area, including other regulatory information required to assure safe operation of the regulated units. The wind rose (Figure B-3) provides historical information on prevailing wind conditions.

B-2b Additional Information on the Topographic Map for Land Disposal Facilities

Map requirements specific to the closed wastewater lagoon is provided in Section E, including information on the site hydrogeology, location of the point of compliance, location of monitoring wells, groundwater recovery trench, and extent of groundwater contaminant plumes.

B-3 Facility Location Information

B-3a Seismic Requirements

FCC is not located in a political jurisdiction identified in Appendix VI of MHWMR 264 and is therefore not subject to seismic design considerations.

B-3b Floodplain Standard

The FCC facility is located within the 100-year flood plain as defined in the FEMA Flood Insurance Rate Map (Figure B-4) for the unincorporated areas of Jackson County, Mississippi, Community Panel Number 285256 0215 G. The 100 year flood elevation in this area is 15 ft. NAVD88.

B-3b(1) Demonstration of Compliance

The 100-year flood elevation at the FCC site is 15 ft. NAVD88. Prior to hurricane Katrina, the 100-year flood elevation at the FCC site was approximately 11 ft. Since Katrina, the FEMA flood maps have been revised to the current 15 ft. flood level. The hazardous waste storage tanks were designed to be protected, in part, by their secondary containment dikes. The elevation of the top of the dike around tank TK-1057 is 17.39 ft., and for TK-1058 approximately17.37 ft. The elevation of the top of the dike around TK-59 and TK-60 is approximately 14.89 ft., and for TK-1403 the top of dike elevation is approximately 16.87 ft.

In the incinerator area, it has been determined that the baseplate of the baghouse is at an elevation of 13.93ft., and the base of the reoxidation chamber is at an elevation of 15.71 ft. The 100-year flood elevation is based on a significant hurricane event in the vicinity of the site. The incinerator would not be in operation during a hurricane, and steps to prevent the release of hazardous waste due to flooding can be implemented within hours of notification of an approaching storm. The waste in the incinerator feed lines will be purged into the incinerator and combusted. Solids are continuously removed from the baghouse dust hopper accumulation bin into a 55 gallon drum so that there is no accumulation in the hopper.The 55 gallon drum is periodically removed and replaced with an empty drum. In the event of a hurricane threat, any accumulated waste solids in the baghouse dust collection drum will be removed and placed in the on-site container storage unit, where the waste dust is normally stored. The drums will be secured to prevent potential dislocation due to the effects of wind/water.

B-3b(1)(a) Engineering Analysis, Demonstration of no Adverse Effects, and Plan and Schedule for Future Compliance

An engineering analysis is provided in Section D to demonstrate that the tank system desiign is or will be adequate to prevent the washout of hazardous waste in the event of a 100-year flood event. For the incinerator, FCC will remove wastes from the unit in advance of events which could result in the 100-year flood event (hurricane).

FCC also maintains a closed surface impoundment (Pond 3) which was closed as a landfill in accordance with the approved closure plan. Operation of Pond 3 was terminated and initial closure activities were conducted in 1987 and 1988. The initial closure activities included removal of wastewater, removal of sludge downt to the saturated zone, and removal of visibly contaminated soils in the saturation zone. Following the initial closure activities, the pond was left open as a recharge zone to assist in flushing contaminants to capture zones as part of the site-wide groundwater remediation plan. In 2006 FCC completed final closure by backfilling the pond with non-hazardous materials and soil, and installation of a low permeability cover and vegetative cover. Since the unit no longer stores hazardous waste, then there can be no washout of hazardous waste due to a flood event.

Table B-1 contains the elements of FCC's plan for future compliance with the floodplain requirements of MHWMR 264.14. FCC will conduct a detailed engineering analysis of the existing flood protection for the hazardous waste tank system, and, if required, will make any needed modifications/improvements to the existing structures in order to ensure that there will be no washout of hazardous waste in the event of a 100-year flood.

B-4 Traffic Patterns

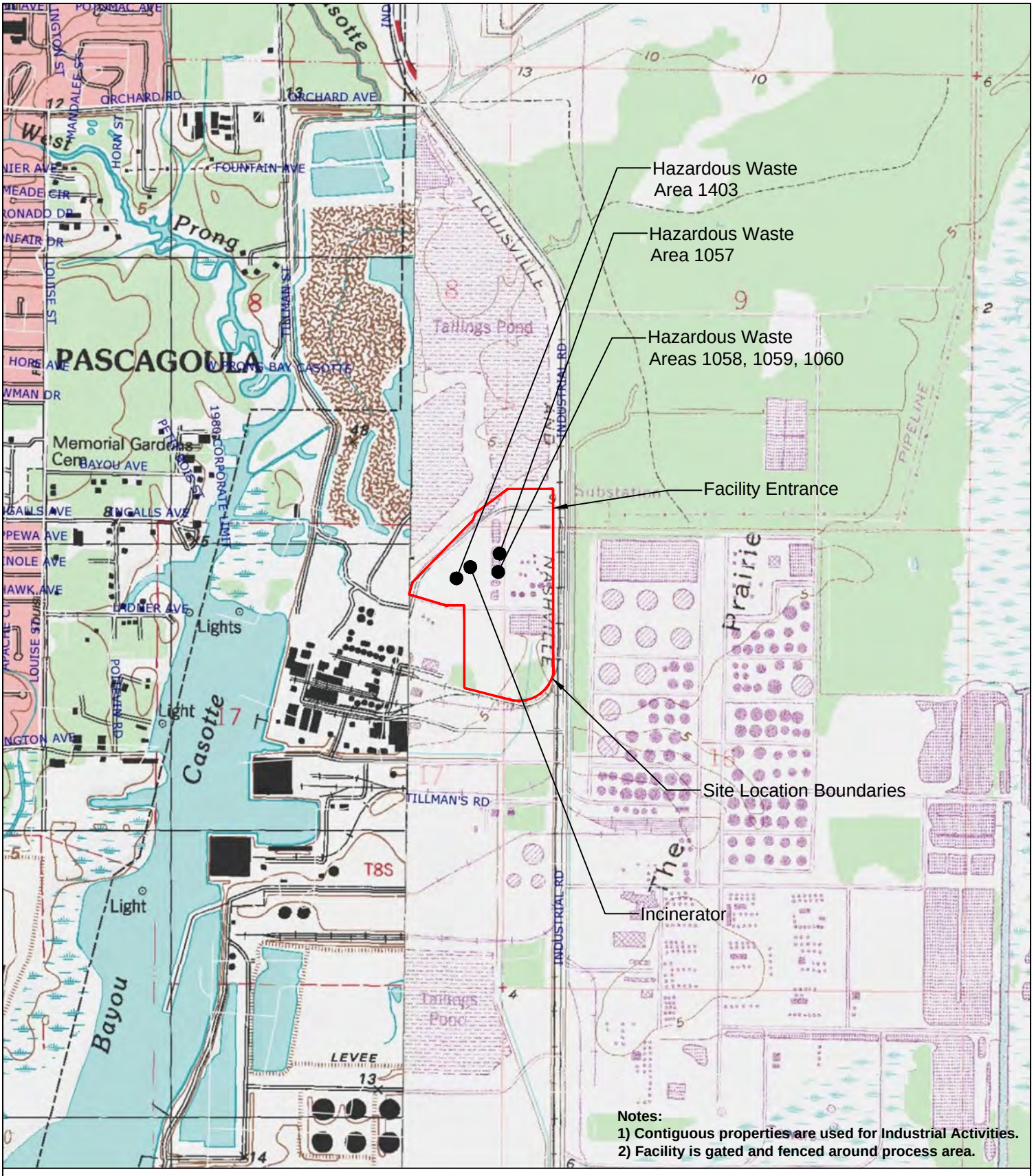
FCC does not receive shipments of hazardous waste from other facilities. Waste generated on-site which cannot be treated in the incinerator, such as spent carbon, are shipped by truck from FCC to off-site permitted hazardous waste disposal facilities. Much of the waste transfer within the facility is accomplished by pumping through fixed, above ground piping systems from the operating units to the storage tanks, and from the storage tanks to the incinerator. Some wastes are stored for short periods in DOT- approved trailer mounted tanks (ISOs) located at the unit. When filled, these trailers are moved to the tank storage area for unloading, or taken to the incinerator area for direct feed to the incinerator. Some waste streams generated on site may be placed in containers and moved along plant roadways from the point of generation to the container storage area.

Roads within the site are constructed of asphalt concrete and have a load-bearing capacity in excess of 80 pounds per square inch. The maximum speed limit in the plant is 10 mph. Figure B-6 illustrates a typical road surface design.

Traffic patterns within the site are shown in Figure B-5. The main entrance to FCC is located on the west side of Industrial Road (MS 611). All commercial vehicles enter and leave through this manned gate, and drivers must sign in and out with security personnel. There are two contractor gates to facilitate the movement of construction and contract maintenance workers. One of these gates is adjacent to the main gate and is under the control of the main gate security personnel. The second contractors gate is located on the south side of the property and is also monitored by security personnel when in use.

TABLE B-1 Flood Plain Compliance Schedule

ITEM	COMPLETION DATE
Engineering Evaluation of Tank 59 and Tank 60 Flood Protection Measures	June 1, 2014
Submit Engineering Evaluation to MDEQ	September 1, 2014
Implement Any Required Flood Protection Measures	To be Determined



FC&E Engineering, LLC
917 Marquette Road
Brandon, Mississippi 39042

First Chemical Corporation
Pascagoula Plant
1001 Industrial Road, Pascagoula, Mississippi

Figure Number: Figure B-1
Figure Name: Topographic Map
Project: RCRA Plan
Drawn By: CC
Date Drawn: June 11, 2013

ATTACHMENT II.6.

CONTINGENCY PLAN

SECTION G

RCRA HAZARDOUS WASTE CONTINGENCY PLAN

Pascagoula, Mississippi

March 2016

Prepared for:

FIRST CHEMICAL CORPORATION

1001 Industrial Road
Pascagoula, Mississippi 39581

Prepared by:

FC&E Engineering, LLC
917 Marquette Road
Brandon, MS 39042
(601) 824-1860

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SECTION G

CONTINGENCY PLAN

G-1 Contingency Plan

First Chemical Corporation (FCC) is located on Highway 611, one mile east of the city limits of Pascagoula, Mississippi (See Figure G-I). This contingency plan has been prepared for the First Chemical Corporation; Pascagoula, Mississippi facility. The purpose of the plan is to protect the safety and welfare of the employees and the community in the event of an emergency incident, and to comply with federal and state laws pertaining to hazardous waste generators with respect to preparedness and prevention for emergency events.

First Chemical Corporation is a manufacturer of nitrated aromatics and aromatic amines. These products result in two listed hazardous waste streams listed under Mississippi Hazardous Waste Management Regulations (MHWMR) 261.32. These are: 1) K083 - distillation bottoms from aniline production, and 2) K104 - wastewater generated from the production of nitrobenzene. Smaller scale specialty chemical operations may also generate hazardous wastes that are hazardous based on various hazardous characteristics; typically, ignitability, benzene or nitrobenzene.

The contingency plan contains parts of the site Emergency Action Plan and is intended to establish the necessary planned emergency procedures to be carried out immediately in the event of fire, explosion, spill or other release of hazardous waste and/or hazardous materials. This document is also intended as a reference source to familiarize local emergency response agencies, fire and police departments, and area hospitals with the facility layout, operations related to hazardous wastes/hazardous materials, and emergency response procedures at the First Chemical Corporation facility.

Copies of the contingency plan have been provided to the following local agencies:

Forts Lake Volunteer Fire Department, Jackson County
Singing River Hospital
Jackson County Sheriff's Office
Jackson County Office of Emergency Services

The contingency plan is intended to specifically address the hazardous waste storage tanks, the incinerator, the 'less than 90-day hazardous waste storage area', and should also be used in the event of an emergency incident involving the satellite accumulation areas in the plant, and may be used, where applicable, for incidents involving the storage

and use of the fuels, chemicals, solvents, and paints prior to their classification as waste materials.

G-2 Emergency Coordinators

The Emergency Coordinators listed in **Appendix A** have been selected based on their familiarity with the facility, the contingency plan, operation and activities at the facility, the location and characteristics of the wastes handled, the location of records within the facility, and the facility layout. All Emergency Coordinators have authority to commit any and all necessary resources of the company to carry out the contingency plan, as documented in **Appendix C**.

The emergency coordinator can be contacted by telephone, VHF radio, or personal cell phone. The list of persons to be contacted in the event of an emergency, along with their phone numbers, is maintained in each control room. A primary emergency coordinator will be contacted first, and if not available, a secondary coordinator will be contacted.

G-3 Implementation

This contingency plan, as part of the site Emergency Action Plan, will be implemented in the event of a spill of hazardous waste, fire, explosion, or a combination of these events if the Emergency Coordinator determines there is an actual or potential threat to human health or the environment. Implementation of the plan is intended to mitigate and protect the facility and neighboring community from injury; contamination of surface drainage, damage to the environment; damage to equipment, structures, and other property; or a combination of these. The plan is also designed to control the emergency and to minimize the potential for the occurrence, recurrence, or spread of releases due to the emergency event. The initial response priority will be on control of the source, and those actions necessary to ensure confinement and containment in the early stages of an incident.

The Emergency Coordinator is responsible for stopping processes and operations when necessary, and removing or isolating containers of waste. If the facility or a part of the facility stops operations, the Emergency Coordinator shall insure monitoring of the area to insure that no unsafe conditions exist due to processes, materials and equipment being left unattended.

The purpose of this section is to provide guidance to the emergency coordinator in making this decision by providing decision making criteria. The following represents the types of situations for which the Contingency Plan and site Emergency Action Plan, may be implemented.

Fire and/or Explosion

a. A fire causes the release of toxic fumes.
b. The fire spreads and could possibly ignite materials at other locations on site or could cause heat induced explosions.
c. The fire could possibly spread to off-site areas.
d. Use of water or water and chemical fire suppressant could result in contaminated runoff
e. An imminent danger exists when an explosion could occur, causing a safety hazard from flying fragments or shock waves.
f. An imminent danger exists when an explosion could ignite other hazardous waste at the facility.
g. An imminent danger exists when an explosion could result in release of toxic material.
h. An explosion has occurred.

Spills or Material Release

a. The spill could result in release of flammable liquids or vapors that could cause a fire or explosion hazard.
b. The spill could cause the release of toxic liquids or fumes.
c. The spill cannot be contained on site, resulting in off-site contamination of soil, groundwater and/or surface water.

Floods

a. The flood could result in the release of hazardous waste.

G-4 Emergency Actions

First Chemical Corporation has established procedures to deal with emergencies which may result from fire, explosion, storm, power or equipment failure, floods and the release of hazardous substances.

Contingency plan content requirements, under Mississippi Hazardous Waste Management Regulations (MHWMR) 264.56, are satisfied by these existing plant procedures. In order to maintain continuity and avoid undue confusion in the event of an emergency, these procedures will continue to be followed. The following are some of the site's emergency procedures specifically as they apply to a hazardous waste releases.

1. Spill and Release Reporting Procedures (Appendix __)
2. Site Emergency Action Plan (Appendix __)

G-4a Notification

Most incidents, emergencies and emerging issues are expected to be resolved at the local level through implementation of this plan. A small number of incidents, due to their

magnitude, duration, public interest, level of controversy, or financial impact, may necessitate corporate level involvement. In general, reporting will be as follows:

A. All minor incidents will be reported to the Emergency Coordinator through normal business reporting channels. The Emergency Coordinator will then notify the appropriate FCC corporate personnel in accordance with internal organizational processes;
B. All major incidents will be reported, immediately by phone, to the FCC Corporate Environmental, Health and Safety Manager.

In the event of an emergency situation, the area supervisor shall notify the emergency coordinator by making use of the nearest communication device. After the emergency coordinator has been notified, all facility personnel, appropriate federal and state agencies, and local fire and police departments shall be notified as necessary.

The form to be used in reporting a hazardous material incident is included in the Site Spill & Release Reporting Procedure**.**

G-4b Identification of Hazardous Materials

The hazardous wastes being stored are primarily: 1) K083 - distillation bottoms from aniline production, and 2) K104 - wastewater generated from the production of nitrobenzene. Smaller scale specialty chemical operations may also generate hazardous wastes that are hazardous based on various hazardous characteristics; typically, ignitability, benzene, toluene, or nitrobenzene. Other wastes stored include used oil, spent fluorescent light bulbs, and batteries. **Appendix D** provides a list of the hazardous waste expected to be routinely generated and stored at the FCC Pascagoula facility. Each tank and container in storage is labeled to identify the contents, and an electronic operating record is maintained by EHS, which identifies waste codes and waste quantities. In the event of a fire, explosion, or spill, a visual determination will be made, if possible, to determine the source, nature, and quantity of released material. If necessary, the emergency coordinator will also refer to facility records. Once the material is identified, appropriate control measures will be implemented.

Figure 2 identifies the location of the five (5) hazardous waste storage tanks, the incinerator and the container storage area in the facility. The location and quantity of various other hazardous materials at the facility are also shown, so that emergency responders can identify areas of concern in the event of an emergency.

Based on the waste characteristics and quantities of waste stored and handled, the most likely emergency events are the following:

- Spill or leak involving hazardous waste; and/or
- Fire involving ignitable and/or combustible hazardous wastes.

Detailed response procedures for these events are provided in the sections of the plan which follow.

Material Safety Data Sheets containing current data characterizing the materials stored and handled at First Chemical are maintained in the control rooms, labs and department offices and are fully accessible to all personnel. These safety data sheets contain pertinent data on the chemicals at the site including:

- Identification of chemical components in material streams;
- Identification of hazardous characteristics (e.g., toxicity, reactivity, and ignitability);
- Important chemical and physical properties for which data are available, such as vapor pressure, pH, and solubility in water;
- Fire control procedures (e.g., water or chemical foam); and
- Appropriate procedures to counteract human exposure (e.g., thorough washing with soap and water in the event of dermal contact).

Any unknown material spilled in the hazardous waste area of the plant will be assumed to be hazardous until proven otherwise. The released material will be contained until it is properly identified and appropriate remedial action can be undertaken. FCC maintains onsite analytical facilities that can be utilized to identify the material so that appropriate response actions can be taken.

G-4c Assessment

Upon arrival of the Emergency Coordinator, all other response actions are to be under her/his direction (or the alternate's if necessary). The Emergency Coordinator will immediately investigate to determine pertinent information relevant to the actual or potential threat posed to human health or the environment. The information will include the location of the release, type and quantity of spilled or released material (or potential for release due to fire, explosion, weather conditions), source, areal extent, and date and time of release. The assessment will consider the effects of any gases that may be generated, surface runoff from water or chemical reagents used to control fires, and any chemical or physical reactions with equipment or structures. Based on his assessment, the Emergency Coordinator shall immediately determine if the incident warrants the implementation of the contingency plan. If there is an actual or potential threat to human health or the environment, the contingency plan will be implemented. Once the materials involved in the emergency are identified, the specific information on the associated hazards, appropriate personal protective equipment (PPE), decontamination procedures, etc., will be obtained from MSDSs and from appropriate chemical reference materials available at the site.

FCC's Emergency Coordinator will determine the necessary response actions including whether evacuation of parts or all of the facility are necessary for employee safety. In general, the FCC Emergency Coordinator will be required to direct the containment of the release and decide on alternative source control if the source release was not controlled by

the person(s) discovering it. The release should be confined to the smallest area possible. Use boom, sandbags, dig small trenches, or place absorbent pads to stop the spread. **Take immediate action to prevent the spill from reaching surface waters**. Place boom or pads, dig a diversion ditch, or use soil to form a berm. If the release reaches water attempt to place boom to contain the release, or if necessary, block drainage downstream of spill to prevent further discharge.

Equipment to be kept on-site includes, but is not limited to brooms, dust pans, shovels, granular absorbents and sand, absorbent pads and boom, both plastic and metal containers (i.e. 55-gallon barrels) for disposal, gloves and safety goggles. Appropriate plant personnel will receive annual instructions from the EHS Engineer on the use, and location of, these spill clean-up materials. The EHS Engineer will maintain training documentation of spill clean-up materials.

Facility employees impacted by the emergency will be notified using the facility alarm system and instructions through the intercom. In addition, employees may also be notified by direct verbal communication from supervisory personnel. In the event the Emergency Coordinator determines that a partial or complete evacuation of the facility is necessary, the alarm will be sounded and the evacuation plan will be implemented. Evacuation routes are shown in **Appendix H.** Employees will receive evacuation information via the intercom system.

If the Emergency Coordinator determines that the assistance from outside emergency responders will be necessary to deal with the emergency event, he will be responsible for notifying the appropriate outside emergency responders. **Appendix B** provides telephone numbers for various outside responders who may potentially need to be contacted in the event of an emergency.

If the Emergency Coordinator determines that evacuation of the plant and/or neighboring facilities is required, or if there are potential impacts outside the facility, the National Response Center and the local and state emergency responders identified in **Appendix B** shall be immediately notified as appropriate.

G-4d Control Procedures

This contingency plan will be implemented in the event of a spill of hazardous waste, fire, explosion, or a combination of these events if the Emergency Coordinator determines there is an actual or potential threat to human health or the environment. Implementation of the plan is intended to mitigate and protect the facility and neighboring community from injury; contamination of surface drainage, damage to the environment; damage to equipment, structures, and other property; or a combination of these. The plan is also designed to control the emergency and to minimize the potential for the occurrence, recurrence, or spread of releases due to the emergency event. The initial response priority will be on

control of the source, and those actions necessary to ensure confinement and containment in the early stages of an incident.

The Emergency Coordinator is responsible for stopping processes and operations when necessary, and removing or isolating containers of waste. If the facility or a part of the facility stops operations, the Emergency Coordinator shall insure monitoring of the area to insure that no unsafe conditions exist due to processes, materials and equipment being left unattended.

A. Fire/Explosion Control Procedures

If fire or explosion either appear imminent or have occurred, all operating activity related to the incinerator unit will be ceased. First Chemical will stop delivery of waste to the incinerator and tanks, and contain any spills and stop leakage. The following actions will be taken in the event of a fire or explosion involving the hazardous waste tanks, storage or accumulation areas in the facility:

(1) The facility emergency alarm is sounded by calling 911 from an internal phone or by using a pull alarm;

(2) The Emergency Coordinator will be contacted;

(3) If there is a fire, and the employee has had the appropriate training, the employee may use nearby firefighting equipment to provide early containment of the fire to significantly reduce the total damage. Firefighting will not be done if the risk to First Chemical firefighters appears high..

(4) In the event of a fire or explosion, the Emergency Coordinator must:

   a. Assess possible hazards to human health and the environment that may result from the fire and/or explosion, including:
      - Person(s) injured and seriousness of injury,
      - Location and type of any material involved in the fire/explosion,
      - The approximate amount and type of any material that has spilled, and the direction and path of flow.

   b. If the Emergency Coordinator determines that FCC responders cannot safely and effectively deal with the incident, he will contact the local fire department and other emergency response organizations deemed necessary, using the contact information provided in **Appendix B**.

(5) Operating equipment will be shut down as necessary and practical.

(6) If the Emergency Coordinator determines that the situation appears uncontrollable, and poses a direct threat to human life, a warning will be sounded to all personnel to secure their emergency equipment and immediately evacuate the area.

If the chances of an impending explosion are high, the entire facility will be evacuated. In addition, adjacent property owners will be notified. The Emergency Coordinator will alert all personnel when he has determined that the situation is under control and the threat of danger has passed.

(7) Any injured persons will be removed from exposure to chemical or physical hazards, and medical treatment will be administered by trained personnel.

(8) During an emergency, the Emergency Coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous material/waste at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing released waste, and removing and isolating applicable containers. Utilities such as electricity and natural gas may be shut off to affected units.

(9) The Emergency Coordinator must evaluate the facility's emergency equipment listed in **Appendix E** to determine if FCC personnel can handle the corrective action and clean-up. If necessary, additional resources should be mobilized by calling the emergency response contractor identified in **Appendix B**.

(10) If FCC personnel can safely and effectively perform any required corrective action and clean-up from a fire event, the following steps are to be taken under the authorization of the Emergency Coordinator:

- Insure that all personnel involved are outfitted with the appropriate protective equipment when considering the hazard level;
- Eliminate all possible sources of ignition; and
- Clean up the released/affected media from the fire or explosion per the spill control procedures listed below.

(11) The Emergency Coordinator must submit a written report to the Executive Director of MDEQ within 15 days after an incident which requires that the contingency plan be activated, and the facility operating record must be updated to include the time, date and details of the incident. The forms found in **Appendices F & G** should be used for this purpose.

B. Spill Control Procedures

The following actions will be taken in response to a spill of hazardous waste:

(1) The person discovering the spill will immediately call 911 from an internal phone and provide the location and severity of the leak or spill and as much information that is readily available to identify the material involved. Any workers in the immediate vicinity should be notified to avoid the area until further notice. In the event of an emergency spill or release, all personnel not involved with emergency response

activity will be evacuated from the immediate area. The area will be secured to prevent unauthorized entry. All waste feed systems to the incinerator, and the incinerator unit will have emergency shutdown procedures imposed.

(2) The Emergency Coordinator will be contacted.

(3) The area will be isolated from unauthorized persons by fences, barricades, warning signs or other security and site control procedures.

(4) The Emergency Coordinator must immediately identify the character, exact source, and extent of any released material. The Emergency Coordinator will obtain the following information:

a. Person(s) injured and seriousness of injury.
b. Location of the spill or leak, material involved, and source.
c. Type of material that has spilled or is leaking.
d. The approximate amount of material spilled, an estimate of the liquid discharge rate, and the direction of flow.

(5) Emergency response employees should not begin clean-up until proper identification of chemical type and concentrations have been determined so that the correct protective equipment and procedures can be chosen.

(6) The Emergency Coordinator must fully evaluate the facility's emergency response equipment **(Appendix E)** to determine if FCC personnel can handle the corrective action and clean-up.

(7) For spills which the Emergency Coordinator determines that FCC personnel can safely and effectively perform corrective action and clean-up, the following steps are to be taken once the responding personnel are equipped with the appropriate protective gear:

a. Eliminate all possible sources of ignition;
b. Immediately begin containment by placing absorbent material around the perimeter of the spill to stop the spreading, while also placing absorbent material to cover the entire surface of the spill. Application of absorbent should continue as long as liquid is observed in the spill area.
c. If the spill threatens to spread through the drainage system, drain covers and temporary dikes in floor trenches should be utilized as necessary to stop the spread.
d. In coordination with the placement of absorbent materials, steps should be taken to stop the flow, if the leak is ongoing. An over-pack type container may be used to resolve leaking container problems. It may be necessary to transfer contents from a leaking drum to a good drum if there is a substantial quantity of material in the leaking drum. Even if a container which was the

source of the discharge has stopped leaking, the over-pack container may be needed to dispose of the damaged container and any residue remaining in it.

e. A decontamination zone should be established to ensure proper decontamination of personnel and equipment leaving the spill zone.

f. Place the contaminated absorbent into open top DOT approved drums, and secure the lids. Spark-proof equipment must be used when dealing with spills of flammable wastes.

g. All drummed cleanup residues are to be managed as hazardous waste until proper characterization has shown otherwise.

h. Drums of cleanup material, (including discarded personal protective equipment) are to be properly labeled.

i. Assigned personnel are to continue cleanup and residue removal until all contamination hazards are eliminated.

j. If soil contamination is involved in the spill, all visibly contaminated soils should be placed in drums as soon as possible. Further soil removal may be required based on follow-up testing.

(8) If the Emergency Coordinator determines that FCC personnel cannot safely and effectively perform corrective action in the event of a spill, the Emergency Coordinator must:

a. Assess possible hazards to human health and the environment that may result from the spill.

b. Contact the local fire department and/or other emergency response organizations listed in **Appendix B**.

(9) During a spill emergency, the Emergency Coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous material/waste at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing released waste, and removing and isolating applicable containers. Utilities such as electricity and natural gas may be shut off to affected units. Floor drains may be covered to eliminate possible discharges. Dams may be placed in floor trenches or outside ditches to reduce the probability of runoff from the spill.

(10) For all spills which require activation of the contingency plan, the Emergency Coordinator must make any required reports as outlined in **Appendix F and Appendix G**.

(11) After cleanup has occurred, the Emergency Coordinator must ensure that, in the affected area of the facility:

a. The spill residues in storage are compatible with any other wastes stored in the same secondary containment.

b. All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before resuming operations.
c. All disposable equipment used during the incident is replaced with new equipment in the appropriate area.

The following evacuation guidance to allow for safe emergency response activities will be employed:

- Large tank or pipeline rupture - initial isolation of 100 feet in all directions.
- Small spills from incinerator, tanks, containers or pipelines - isolation at least 50 feet in all directions.
- Volatile materials spill, toxic vapor cloud, incinerator large scale rupture - down wind clearance of an area of at least 500 feet wide and 1,000 feet long.

G-4e Prevention of Recurrence of Spread of Fires, Explosions, or Releases

The incinerator feed system is interlocked with several incinerator operating controls so waste feed is automatically stopped whenever a potentially hazardous situation occurs. The interlock system will be manually reset after an upset condition to ensure proper operation of the incineration process prior to restarting the waste feed. If the incinerator is shut down due to an emergency, (e.g., loss of combustion air) waste feed and auxiliary fuels will be stopped. Actions taken to prevent the recurrence or spread of fires, explosions or releases include stopping processes and operations, collecting and containing released waste, and isolating tanks. In addition, if the incinerator stops in response to an emergency, the emergency coordinator will monitor valves, pipes, and other equipment for leaks, pressure build up, gas generation or ruptures. Tanks containing hazardous wastes exposed to excessive heat as a result of a fire or explosion will be cooled with water spray. If ignitable waste is involved, all ignition sources will be secured.

Absorbent pads, booms, earth, sandbags, sand, and other inert materials to contain, divert and clean up spills will be used if it has not been contained by a dike or sump. Spark- and explosion-proof equipment and fire-resistant, impervious clothing will be used in the containment and clean-up areas. Most spills contained within the dike or sump will be pumped back into the appropriate storage tank or into drums.

If wastes reach a storm sewer, the outfall will be dammed to minimize the release. The impounded material will be pumped into temporary holding tanks or drums as soon as possible. If a spill has entered a drain, absorbent booms and sweeps around the outfall will be used to contain and absorb water-insoluble organics.

All contaminated single-use materials will be placed in drums for proper disposal. All recovered liquid wastes and contaminated soil will be collected for proper disposal.

G-4e(1) Monitor for Leaks, Pressure Buildup, Gas Generation or Ruptures of Released Material

In the event the facility stops operations in response to an emergency, the Emergency Coordinator will designate qualified personnel to monitor for leaks, pressure build-up, gas generation and ruptures of released material to determine potential for additional damage.

G-4f Storage, Treatment and Disposal of Released Materials

After an emergency, the emergency coordinator will make arrangements for treatment, storage, or disposal of recovered wastes, contaminated soil, surface water, and any other contaminated materials. Fixed structures and reusable equipment will be decontaminated prior to being put back into service.

G-4g Incompatible Wastes

The emergency coordinator and facility management will ensure that incompatible wastes and material are not comingled.

G-4h Post-Emergency Equipment Management

After cleanup has occurred, the Emergency Coordinator must ensure that, in the affected area of the facility:

a. The spill residues in storage are compatible with any other wastes stored in the same secondary containment.
b. All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before resuming operations.
c. All disposable equipment used during the incident is replaced with new equipment in the appropriate area.

G-4h(1) Notification of Federal, State and Local Authorities before Resuming Operations

Before operations are resumed, an inspection of all safety equipment will be conducted. The Mississippi Department of Environmental Quality will be notified that post-emergency equipment maintenance has been performed and operations will be resumed within 15 days of occurrence.

G-4i Container Spills and Leakage

The container storage area is surrounded by an impervious dike for containment should a leak occur. The dike serves as secondary containment with a volume greater than that of

the largest container. In the event of a spilled or leaking container, the following steps will be implemented immediately by the Emergency Coordinator:

a. Identify the spilled material and its hazardous characteristics.
b. Assess spill magnitude and threat to human health and the environment.
c. Take appropriate safety precautions to safeguard life and the environment.
d. Initiate the appropriate aspects of the general emergency coordination procedure for a hazardous waste spill.
e. Stop the discharge, if possible, by one of the following methods:
    - Set drums upright and ensure bungs are closed.
    - Over pack leaking drums
    - Transfer or collect the material from the leaking container - into an undamaged drum of the same or similar type, or other compatible containers.
f. Choose an appropriate method to contain the spill such as diking, excavation, diversion or any combination of these.
g. If the spill residue is in an easily collectible form, return the spilled material as well as any waste remaining in the damaged container to the storage area using the appropriate equipment and containers.
h. Small liquid spills may require an adsorbent material be used to collect the waste residue while larger spill may need to be pumped into compatible containers.
i. Representative samples of contaminated materials such as soils must be collected and analyzed for hazardous characteristics.
j. Materials determined to be hazardous, either by definition or analysis, will be removed from the plant site.
k. All hazardous material which is generated during a spill cleanup will be properly packaged or contained.

The above procedure may be varied slightly to accommodate a particular waste or unusual circumstances.

G-4j Tank Spills and Leakage

Each of the hazardous waste tanks is equipped with overfill prevention controls and are surrounded by impervious dikes for containment should a leak occur. The dikes serve as a secondary containment with a volume greater than that of the largest tank plus a 24-hour; 25-year storm event (10.8 inches). In the event of an emergency, the following steps will be implemented immediately by the emergency coordinator:

a. Identify the spilled material and its hazardous characteristics.
b. Assess spill magnitude and threat to human health and the environment.
c. Take appropriate safety precautions to safeguard life and the environment.
d. Initiate the appropriate aspects of the general emergency coordination procedure for a fire or explosion.
e. Stop the discharge, if possible, by one of the following methods:
    - Close valves and shut off pumps.

- Repair tanks - including reinforcing, patching and insertion of plugs both to the inside (with rags) and from the outside (wooden plugs) forced into hole to reduce area of leak.
- Transfer or collect the material from the leaking tank - into an undamaged tank of the same or similar type, or other compatible containers.

f. Choose an appropriate method to contain the spill such as diking, excavation, diversion or any combination of these.

g. If the spill residue is in an easily collectible form, return the spilled material as well as any waste remaining in the damaged tank to the storage area using the appropriate equipment and containers.

h. Small liquid spills may require an adsorbent material be used to collect the waste residue while larger spill may need to be pumped into compatible containers.

i. Representative samples of contaminated materials such as soils must be collected and analyzed for hazardous characteristics.

j. Materials determined to be hazardous, either by definition or analysis, will be removed from the plant site.

k. All hazardous material which is generated during a spill cleanup will be properly packaged or contained.

l. Repair or replace damaged tank.

The above procedure may be varied slightly to accommodate a particular waste or unusual circumstances.

G-4j(1) Stopping Waste Addition

In the event of a release from a hazardous waste storage tank, the Emergency Coordinator will ensure that the flow of hazardous waste into the tanks is immediately stopped.

G-4j(2) Removing Waste

Within 24 hours after a leak is detected, the Emergency Coordinator will remove all waste from containment such that an inspection and repair of the tank system can be performed.

G-4j(3) Containment of Visible Releases

In the event of a release from a hazardous waste storage tank a visual inspection of a release will be conducted and further mitigation of the leak will be prevented. The visible contamination will be removed and disposed of properly.

G-4j(4) Notification Reports

Any release to the environment from the hazardous waste tanks will be reported to the Executive Director of the MDEQ within 24 hours of detection using the reporting form in

Appendix F, unless the release is less than or equal to a quantity of one (1) pound, and is immediately contained and cleaned up.

Subsequently a written report will be submitted to the MDEQ Executive Director within 15 days of the detection of a release from the environment. The report will contain the following information:

1. Name, address, and telephone number of owner or operator and of the facility;
2. Date, time, and type of incident;
3. Name and quantity of material(s) involved;
4. Extent of injuries, if any;
5. An assessment of potential hazards to human health or the environment, where applicable;
6. Likely route of migration of the release;
7. Characteristics of the surrounding soil (soil composition, geology, hydrogeology, climate);
8. Results of any monitoring or sampling conducted in connection with the release (if available). If sampling or monitoring data relating to the release are not available within 15 days, these data will be submitted to the Executive Director as soon as they become available.
9. Proximity to downgradient drinking water, surface water, and populated areas;
10. Description of response actions taken or planned; and
11. Estimated quantity and disposition of recovered material from the incident.

[See **Appendix G** for a blank form that contains spaces to list this information]

G-4j(5) Provisions of Secondary Containment, Repair or Closure

If the cause of the tank release was a spill that has not damaged the integrity of the system, FCC will return the system to service as soon as the released waste is removed and repairs, if necessary, are made.

If the cause of the tank release was a leak from the primary tank system into the secondary containment system, the system will be repaired prior to returning the tank system to service.

If the source of the release was a leak to the environment from a component of a tank system without secondary containment, FCC will provide the component of the system from which the leak occurred with secondary containment that satisfies the requirements of § 264.193 before it is returned to service, unless the source of the leak is an aboveground portion of a tank system that can be inspected visually. If the source is an aboveground component that can be inspected visually, the component will be repaired and may be returned to service without secondary containment provided that a Professional Engineer registered in the State of Mississippi certifies that the repaired system is capable of handling hazardous wastes without release for the intended life of the

system. If a component is replaced, that component will satisfy the requirements for new tank systems or components in MHWMR §§ 264.192 and 264.193. Additionally, if a leak has occurred in any portion of a tank system component that is not readily accessible for visual inspection (e.g., the bottom of an on ground tank), the entire component will be provided with secondary containment in accordance with MHWMR § 264.193 prior to being returned to use.

G-4k Surface Impoundment Leaks and Spillage

There are no operating surface impoundments at the FCC Pascagoula facility.

G-4l Containment Building Leaks

There are no permitted containment buildings at the FCC Pascagoula facility.

G-4m Drip Pad Spills and Leakage

There are no permitted drip pads at the FCC Pascagoula facility.

G-5 Emergency Equipment

Emergency response equipment and communication equipment are located throughout the facility, along with a safety shower and emergency eyewash located at the main office. The details of the emergency response equipment are provided in **Appendix E**. The locations of the emergency response equipment and communication device are shown in **Figure 2**. The entire facility is protected by a water sprinkler system. FCC also maintains an emergency firewater supply and pumping system which can feed the sprinkler system in the event that water supply is interrupted. Detailed procedures of emergency response equipment are outlined in the Lotus Notes Policy and Procedures database.

The site maintains an emergency response safety trailer equipped with necessary supplies to handle on-site emergencies. A monthly inventory is maintained on the trailers' supplies by the site safety technician.

An 800 mega-hertz radio is maintained in order to better communicate with local agencies in the event of an emergency where direct communication is necessary (i.e. chemical fire, life flight, etc.).

For emergencies involving spilled materials or wastes, additional equipment such as shovels, rakes, portable pumps and generators can be located in the site warehouse. A backhoe, forklift, man-lift and other large equipment are maintained on-site at all times.

Medical supplies are also maintained throughout the site. Stokes basket, Sked units, backboards and other packaging supplies (such as head-beds, straps, etc) are located in the safety trailer. The main trauma bag with splinting supplies and C-collars is maintained in the shift supervisor's office. Portable oxygen cylinders are maintained in the North Control Room. Additionally, the site has two AEDs that are checked monthly. These are located in the Main Control Room and Hill Breakroom.

Spill Response Equipment will be audited Bi-Annually/after use. The Spill Locker(s) are located throughout the facility, adjacent to waste storage and management areas and clearly marked (See Figure 2). The Emergency Coordinator will audit the Spill Lockers bi-annually and after each use to ensure the lockers are adequately stocked using Worksheet 1. Records of the audits will be maintained by the Emergency Coordinator in **Appendix K** for a period of three (3) years from the date of inspection.

G-6 Arrangements with Local Authorities

The contingency plan should be viewed as a vehicle to promote routine contact with the area law enforcement agencies, fire departments, and emergency medical providers. Appendix I provides a list of contacts for distribution of the contingency plan, including a letter requesting cooperation in the event the plan is implemented. Copies of transmittal letters and certified mail receipts will be kept on file by the Emergency Coordinator to document distribution of the plan and request for agreement to coordinate. Copies of responses received, if any, will also be maintained on file.

The City of Pascagoula Fire Department is the responding authority in the event of a fire at the FCC Pascagoula facility. The fire department has inspected the facility, and FCC will encourage periodic inspections by the department. The fire department has full authority upon arrival at the facility when responding to an emergency request from the facility. The FCC Pascagoula facility utilizes the Singing River Hospital whenever medical emergencies occur. The Jackson County Sheriff's Office is the primary responding authority in emergencies which require law enforcement involvement, whether to manage traffic or assist in evacuations.

G-7 Evacuation Plan for Facility Personnel

There are general plant-wide guidelines for determining the appropriate response to an emergency, including communication and evaluation of the need to evacuate the plant. Refer to the pre-plan section of this procedure for specific emergency response plans.
The following activities shall be initiated immediately, as many as possible in parallel:

- Initiate headcount per site practice (see Mustering section of ERP) if required.
- The Shift Supervisor (IC) dispatches an initial response team to quickly investigate the emergency. With safety of the rescuers as a principal concern, they will attempt to rescue and/or protect personnel in the area. The area responder must wear appropriate Personal Protective Equipment (PPE), up to and including Self-Contained Breathing Apparatus (SCBA) and Level A fully encapsulating suit.
- If the incident entails a fume release, The Shift Supervisor (IC) will dispatch someone to conduct air monitoring. The person conducting air monitoring will pick-up the appropriate air monitoring equipment, a radio, and appropriate PPE to monitor fumes depending on the nature of the release. At this point, barricades should be set up to keep the affected area isolated.

- The IC or shift supervisor will determine if an off-site fume condition could adversely affect the community. If there is potential for off-site impact, call 911 and follow the notifications section of this procedure.
- The IC or shift supervisor will determine additional off-site assistance is needed (consider ambulance, fire department, Life Flight)
- The IC or shift supervisor will assign someone to begin making required/courtesy notifications (see notifications section of this procedure).
- Site procedure and practices should be followed as closely as possible to secure the emergency; however in specific emergency situations, the IC/shift supervisor may deviate from the procedures to provide a more effective plan for bringing the situation under control.
- Implement decontamination plans for personnel exiting the affected area. If an employee or contractor is injured, and an ambulance is summoned, the injured employee must be decontaminated prior to ambulance transport. A call needs to be made to the hospital emergency room concerning the personnel and injuries in route. Do not rely on the ambulance service to make this contact. An employee (preferably a supervisor or EHS resource) along with pertinent SDS should accompany the injured personnel to the hospital. If additional personnel, on or off-site, may need emergency room treatment, the hospital should be so advised.
- In the event that the incident command station needs to be relocated off-site, the following items, at a minimum, should be taken to the new command station. These items are located in the shift supervisor's office.
    - Laptop with power cords
    - Radio with extra batteries
    - Plot plan with fire equipment locations
    - Computer access equipment (CPASS)

Each operating shift (A, B, C, & D) is composed of personnel trained in the skills needed to rescue and treat injured personnel, control and extinguish fires, and secure chemical releases. Additional day support (i.e. maintenance, admin, technical) also maintain some of the certifications to assist in emergencies during the day when the workforce is larger.

Emergency Response Planning Guidelines (ERPGS) may need to be consulted to determine hot zones, barricades and PPE especially if off site potential is present. ERPGs estimate the concentrations at which most people will begin to experience health effects if they are exposed to a hazardous airborne chemical for 1 hour. (Sensitive members of the public—such as old, sick, or very young people—aren't covered by these guidelines and they may experience adverse effects at concentrations below the ERPG values.) A chemical may have up to three ERPG values, each of which corresponds to a specific tier of health effects.
The three ERPG tiers are defined as follows:

- **ERPG-3** is the maximum airborne concentration below which nearly all individuals could be exposed for up to 1 hour without experiencing or developing life-threatening health effects.

- **ERPG-2** is the maximum airborne concentration below which nearly all individuals could be exposed for up to 1 hour without experiencing or developing irreversible or other serious health effects or symptoms which could impair an individual's ability to take protective action.
- **ERPG-1** is the maximum airborne concentration below which nearly all individuals could be exposed for up to 1 hour without experiencing other than mild transient health effects or perceiving a clearly defined objectionable odor.

The most current list of ERPG Values is saved on site shared drive S:\Site SHE Info\EM RES.

G-8 Required Report Procedures for Recordkeeping and Reporting to Federal Authority

The Emergency Coordinator must submit a written report to the Executive Director of MDEQ within 15 days after an incident which requires that the contingency plan be activated, and the facility operating record must be updated to include the time, date and details of the incident. The forms found in **Appendices F & G** should be used for this purpose.

In addition to these reporting requirements for state and federal authorities, First Chemical also has internal reporting requirements. The following incidents require that an incident report be completed, returned and made part of the operating record:
1) All fires
2) All chemical spills
3) All injuries
4) All equipment damage due to malfunction or operating error

G-9 Location and Distribution of Contingency Plan

A copy of the contingency plan will be maintained on site and distributed to the following:

Forts Lake Volunteer Fire Department
Singing River Hospital
Jackson County Sheriff's Office
Jackson County Office of Emergency Services

The contingency plan will be reviewed and amended, if necessary, whenever:
1) The facility permit is revised
2) The plan fails in an emergency
3) The facility changes in its design, construction, operation, maintenance, or other circumstances in a way that materially increases the potential for fires, explosions, or releases of hazardous waste constituents.

SECTION G – FIGURES

SECTION G – APPENDICES

APPENDIX A: EMERGENCY RESPONSE COORDINATORS

EMERGENCY RESPONSE COORDINATORS
FIRST CHEMICAL CORPORATION
PASCAGOULA, MISSISSIPPI

The following roles/groups will make up First Chemical's Emergency Response Team:

Incident Commander (IC) will direct all response efforts. While outside organizations directly supervise their employees, they will be under the Incident Commander direction. The IC/Shift Supervisor shall make all decisions concerning the level of evacuation, and if and/or when outside emergency response organizations will be contacted for support. The IC is responsible to designate the command post location. A Command Post must be established at a site safely upwind of the emergency as a center of coordination. The Command Post is essential to assure a safe response based on planning, coordination and communication. It is a designated point where various components of the response can communicate action plans, change in plans, change in scope of the emergency and many other aspects of effective and safe emergency response. The pre-designated command post is the main control room. When an emergency is over and the IC determines it is safe to return to the operating area, and all-clear decision is made. This will be communicated by a radio and telephone announcement.

On-scene Commander/Operations Section Chief – Coordinates efforts to evaluate the emergency (tactical) scene. The on-scene commander acts as on-site fire chief. Maintain close contact with the IC and site strike/task force teams.

Public Information Officer - The Public Information Officer will coordinate all contact with the media, employees' families and stakeholders.

Communications Leader/Situation Unit Leader – documents emergency efforts and resources as they are assigned; responsible for 800 mg/hz radio communication with response organizations. They will serve as the scribe of the emergency event.

Medical Leader- provides medical support to any potentially injured personnel. Also provides medical support to the site emergency responders.

Headcount Coordinators (Single Resources) - Collects headcount information at site muster locations and reports status to the IC via radio. This includes employees, contractors and any visitors that may be present.

Production Superintendent - whose area of responsibility is affected by the emergency will provide necessary support, hazard evaluation, and guidance for the IC as requested. These individuals will fall under the Planning Section as technical specialists.

Traffic Controller/Ground Support Leader – establish traffic flow by barricading and blocking roadways as necessary, reporting to IC when service vehicles are no longer working, arranging for fueling of equipment and notify security of road assignments. The traffic controller will flag off-site Emergency Response Units and direct them to the IC The contract security guards will only maintain the gate/access control to the site; they will not serve as the traffic controller during an emergency event.

FSO/Security Manager – point of contact for law enforcement, implement security plans per site procedure.

All Other personnel on-site - When the alarm sounds, all FCC personnel, contractors and visitors shall report to pre-designated or safest muster location. When feasible, you should bring your assigned respirator/cartridges and vehicle keys with you to muster. Employees who do not have assigned responsibilities in an emergency must remain in the muster location and stay away from the emergency scene. During an emergency, it is important that only personnel who have a defined emergency role be at the emergency scene, or the Command Post. Employees are responsible for escorting contractors and visitors to an assembly area.

At a minimum, FCC must maintain a minimum of 8 personnel on site at all times in the following roles: Incident Commander, On-scene Commander, Communications Leader, Medical Leader, Traffic Controller and hose team representatives. NOTE: personnel may serve in more than one role, but a minimum of eight must be on-site at all times.

NAME & ADDRESS	***TITLE***	***PHONE***
James Freeman	Plant Manager	Cell: (228) 623-2177 Office: (228) 938-1719
Bob Massaro	Production & Maintenance Manager	Cell: (228) 219-8518 Office (228)938-2260
Pete Schilthuis	Area Manager	Cell: (228) 990-3824 Office: (228)938-2215
Audrey Chennault	Safety & OH Consultant	Cell: (228) 623-6710 Office: (228) 938-2289
Greg Hust	Area Manager & Lab Manager	Cell: (228)623-6380 Office: (228)938-2708
Mike Ivy	Contract Administrator	Office: (228) 938-2723 Cell: (228) 219-8787
Joe Wildman	Shipping/Receiving/FSO	Cell: (228) 219-8531 Office: (228) 938-2233
Cari Field	EHS Manager	Cell: (228) 627-5426 Office: (228) 938-2264
Rickey Tanner	Maintenance Supervisor	Cell: (228) 623-6720 Office: (228) 938-1050
Sam Cunningham	EHS Sr. Consultant	Cell: (251) 442-4611 Office: (228) 938-2275
Cheri Brown	HR Manager	Cell: (228) 623-1302 Office: (228) 938-2230

Chemours Corporate Contact List

Jim Wilson	EHS Manager for Business	(804) 387-3710 (c)
Terry Gooding	Public Relations	(804) 381-8568 (c)
Rick Hodge	Operations Director for Chemours	(804) 731-9349 (c)

APPENDIX B: EMERGENCY TELEPHONE LIST

EMERGENCY TELEPHONE LIST
FIRST CHEMICAL CORPORATION COMPANY
PASCAGOULA, MISSISSIPPI

Pascagoula Fire Department	911 or 228-762-3066
Ambulance	911
Pascagoula Police Department	228-762-2211
Jackson County Sheriff's Office	911 or 228-769-3063
Singing River Hospital	228-938-5000
Mississippi Department of Environmental Quality MDEQ On-Scene Coordinator	228-432-1056 228-326-6401 (CELL) 24 Hour: 1-800-222-6362
Local Emergency Planning Committee (LEPC) / Jackson County OES	228-769-3111
Earl Etheridge – Jackson County Emergency Manager	228-219-0716
Mississippi Emergency Management Agency	1-800-222-6362
National Response Center	1-800-424-8802 1-800-222-6362 (24 hr)
Emergency Response Contractor:	
American Environmental Services	251-679-6900 251-331-2208 cell
US Coast Guard (water impact only)	1-251-441-6211

EMERGENCY TELEPHONE LIST - CONTINUED

FIRST CHEMICAL CORPORATION COMPANY

PASCAGOULA, MISSISSIPPI

Shift supervisor or his designee shall notify the applicable Bayou Casotte Industrial neighbor as to any immediate danger that may be associated with the emergency.

INDUSTRIAL NOTIFICATION	**PHONE**	**NOTIFIED**
MS Phosphates	228-712-3363	_____
Chevron - Emergency	228-809-5208	_____
Main Switch Board	228-938-4204	
Shipping Dock	228-938-4512	
Port of Pascagoula	228-762-4041	_____
CSX Railroad Emergency	800-232-0144	_____
Gulf LNG (Control Room)	228-202-3601	_____
BP Gas Plant	228-712-3503	_____
Gulf South Pipeline	800-350-0051	_____
MS Power Call Center	228-575-3600	_____
Rolls Royce	228-549-2462	_____

APPENDIX C
CONTINGENCY PLAN APPROVAL

SECTION L

CERTIFICATION

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

J. Freeman
James E. Freeman, Site Manager

3/21/2016
Date

APPENDIX D
WASTE IDENTIFICATION TABLE

WASTE IDENTIFICATION TABLE
FIRST CHEMICAL CORPORATION
PASCAGOULA, MISSISSIPPI

Waste Description	Hazardous Waste Codes	Constituents of Concern
Distillation Bottoms from Analine Production	K083	Aniline, Nitrobenzene, Benzene
Wastewater Generated from the Production of Nitrobenzene	K104	Nitrobenzene, Aniline, Benzene, trinitrophenol
Waste Flammable Toxic Liquid	D001, F002, F003, D018, D036, D007	Toluene, Acetone, Isopropanol, Benzene, Nitrobenzene, Chromium
Waste Paint Related Material	D001, D035, F003, F005	methyl ethyl ketone, xylene, toluene, propanol, butyl acetate, methyl isobutyl ketone, propylene glycol methyl ether, propylene glycol methyl ether acetate

Other Wastes Accumulated in or Near the Less Than 90 Day Storage Area:

Used oil

Universal Waste- Lamps in cardboard containers

Universal Waste- Batteries in closed plastic buckets

Non-hazardous waste chemicals

Mecury filled equipment and switches

APPENDIX E
EMERGENCY EQUIPMENT LIST

APPENDIX E
EMERGENCY EQUIPMENT
FIRST CHEMICAL CORPORATION
PASCAGOULA, MISSISSIPPI

Safety Trailer Inventory Form

Date_____ Intl._____

Items	Count	Notes
Large Cylinders of Air	4	
Small Bottles of air	2	
Rope Ladder	1	
Chlorine Repair Kit "c"	1	
Chlorine Repair Kit "b"	2	
Foam Hose	2	
Blue/ Black Air Hose 50'	10	1 Blue/ 9 Black
Portable water cannon	1	
Tripod/ Wench	1	2 wenches with tripod
FPD/Wench	1	
Bags of Rope	2	
HAZ Mat Suit	4	
Neck Brace	2	
Rescue Positioning Device	1	
Stiffneck Extrication Collar	3	
Head Blocks	2	
Bolt Cutter	1	
Resuscitator	1	
12'x16' Tarp	1	
Emergency Kit	1	
SKA Packs	2	
Isolation Gowns	5	
Safety Harness	3	
5/8 Rope 100'	2	

Long		
1/2 Rope	**6**	**2 @ 75' 4@ 50'**
Caution Tape	**1**	
Danger Tape	**2**	
Duct Tape	**2**	
Safety Goggles	**2**	
Respirator Cartridges	**4**	
Flashlight	**1**	
Green Neoprene Gloves	**2 pks**	
Black Neoprene Gloves	**1 pk**	
CPF1	**5**	
CPF2	**5**	
CPF3	**5**	
Infection Control Kit	**1**	
Back Board	**2**	
Cage Type Back Board	**1**	
Rescue Seat	**1**	
Fire Extinguishers	**2**	
Extention Cord	**1**	

Monthly Seal Inspection
On All Sprinkler Systems

Date_____
Intl._____

		Foam Systems		
Number	**Supplies To**	**Location**	**Seal**	**Comments**
# 1	**ETOH Storage & #1 NEA WIP**	**West of #2 Anline**	**ok**	
# 2	**Tol. Fd. Tk. A & B Benez. Fd. Tk. Tol. Wash Tk.**	**Eastside of #1 & #2 Nitric Tanks**	**ok**	
# 3	**M-Xylene Stg. Tk- 1162 Tol. & Phenol Stg. Tk**			**M- Xylene out of service**
# 4	**Benez. Tks 501 & 502 Tol. Tk 503**	**Port Tanks**	**ok**	
# 5	**Recycle Tol. Tk. Picric Slop Tk. Ext. H20 Stg.**	**East side of Phenol**	**ok**	
# 6	**Toluene Wash Tk.**		**Blk**	**Out of service**
# 7	**Tk-6000-5, Tk-6000-3 Tk-6000-2, 10000-1**	**Southwest of #6 MCC**	**ok**	**10000-1 Out of service**

		Sprinkler Systems		
Letter	**Supplies to**	**Location**	**Seal**	**Comments**
A	**Aniline & O-Tol**	**East of Anline**	**ok**	
B	**Phenol & Effluent**	**East of Phenol**	**ok**	
C	**Ammonia Deluge**	**South of**	**ok**	
	Ammonia Storage	**Eff. Shack**	**ok**	
D	**Hill Solids Stg Bldg**	**#5 Hopper House**	**ok**	
E	**#7 Unit**	**East of #7 Unit**	**ok**	
F	**#6 Unit**	**North Side**	**ok**	
G	**Solids Stg Bldg**	**Dry Storage**	**ok**	
H	**Main Plant C/T 1,2,3**	**Main C/T**	**ok**	
J	**Hill Cooling Towers**	**#4 C/T (West C/T)**	**ok**	
K	**R/D Lab**	**In Storage Rm**	**ok**	
L	**#5 Hot Oil System**	**North of Hot Oil Sys.**	**ok**	

EQUIPMENT	LOCATION
Backhoe	Maintenance Shop
Radio Communications	Each Operator, Company Vehicles, Control Room
Shovels, Picks, Rakes	Warehouse
Portable Pumps	Warehouse
Portable Generators	Warehouse
Respirators	Control Room
Scott-Air Packs	Control Room
Medical Oxygen	Control Room

APPENDIX F
REPORTING FORM FOR EMERGENCY EVENTS

REPORTING FORM FOR EMERGENCY EVENTS
FIRST CHEMICAL CORPORATION
PASCAGOULA, MISSISSIPPI

Name, address, and telephone number of owner or operator

Name, address, and telephone number of facility

Date, time and type of incident (e.g. fire, explosion, etc.)

Name and quantity of material(s) involved

Extent of injuries (if any)

Assessment of actual or potential hazards to human health or the environment (if applicable)

Estimated quantity and disposition of material recovered from the incident

Send to: **Executive Director**
Mississippi Department of Environmental Quality
Box 2261
Jackson, MS 39225

APPENDIX G

OPERATING RECORD DOCUMENTATION FORM FOR EMERGENCY EVENTS

DOCUMENTATION FORM FOR EMERGENCY EVENTS
FIRST CHEMICAL CORPORATION
PASCAGOULA, MISSISSIPPI

1. Type of emergency: Fire _____, Spill _____, Other_____

2. Alarm: Date _____, Time_____, Shift _____

3. Alarm Sounded: _____Yes _____No By _____

4. Location of emergency: _____

5. Description of emergency and property involved:_____

6. Materials involved and their hazards: _____

7. Cause of emergency: _____

8. If fire, source of ignition: _____

9. Narrative account of fire/spill control measures: _____

10. Extinguishing agents used: _____

11. List other equipment used: _____

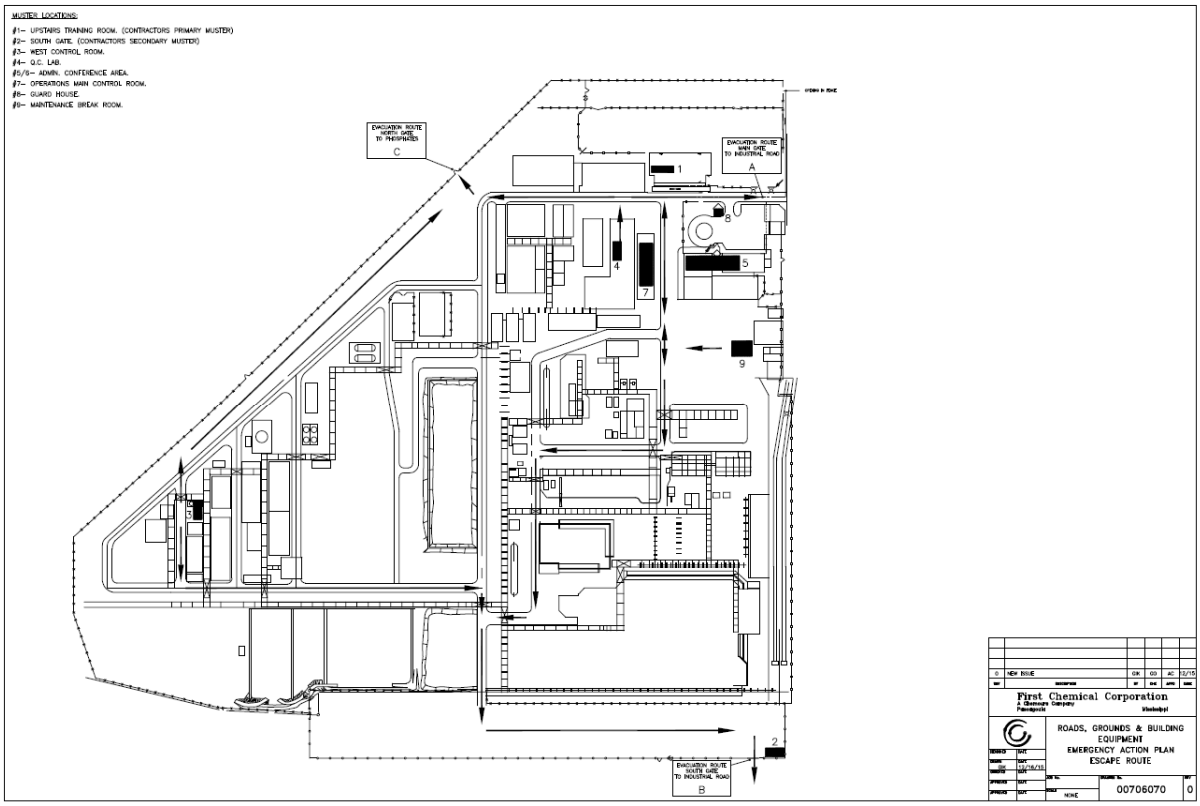
12. All clear announced by:_____

13. Emergency equipment restored to operating condition: _____

14. Remarks and recommendations: _____

15. Submitted by:_____ Title: _____

APPENDIX H
FACILITY EVACUATION ROUTES


MUSTER LOCATIONS:
#1– UPSTAIRS TRAINING ROOM. (CONTRACTORS PRIMARY MUSTER)
#2– SOUTH GATE. (CONTRACTORS SECONDARY MUSTER)
#3– WEST CONTROL ROOM.
#4– Q.C. LAB.
#5/9– ADMIN. CONFERENCE AREA.
#7– OPERATIONS MAIN CONTROL ROOM.
#8– GUARD HOUSE.
#6– MAINTENANCE BREAK ROOM.
EVACUATION ROUTE NORTH GATE TO PHILIPHARES C
EVACUATION ROUTE WEST GATE TO INDUSTRIAL ROAD A
EVACUATION ROUTE SOUTH GATE TO INDUSTRIAL ROAD B
1
2
3
4
5
6
7
8
9
0 NEW ISSUE GR GD AC 03/15
First Chemical Corporation
ROADS, GROUNDS & BUILDING EQUIPMENT
EMERGENCY ACTION PLAN
ESCAPE ROUTE
00706070
0

APPENDIX I
CONTINGENCY PLAN DISTRIBUTION LIST

CONTINGENCY PLAN DISTRIBUTION LIST
FIRST CHEMICAL CORPORATION
PASCAGOULA, MISSISSIPPI

- On-Site Personnel:
  - Site Manager
  - EHS Manager
  - Plant Protection / Emergency Response Coordinator
  - Shift Supervisor's Office

- Jackson County Sheriff's Office
  3104 Magnolia St.
  Pascagoula, MS

- Pascagoula Fire Department
  1707 Jackson Ave
  Pascagoula, MS 39567

- Singing River Hospital
  2809 Denny Ave
  Pascagoula, MS 39581

- Jackson County Emergency Management Director
  600 Convent Ave
  Pascagoula, MS 39567

- Forts Lake Volunteer Fire Department

APPENDIX J
SITE SECURITY FEATURES

APPENDIX J
SITE SECURITY
FIRST CHEMICAL CORPORATION PASCAGOULA, MISSISSIPPI

Perimeter Security	**Location**
Perimeter Fencing	Site wide
Guarded Entry and Exit	Plant Entrance/Exit
Security Guard Patrol - periodic	Site wide
Lighting	**Location**
Perimeter Lighting (dusk to dawn)	Plant wide
Communication	**Location**
Alarm System	Plant wide
PA System – for announcing emergencies	Plant wide
Emergency Power	**Location**
Emergency Generators – provide back-up power; emergency lighting	Plant wide

APPENDIX K
EMERGENCY EQUIPMENT AUDITS

APPENDIX L
CONTINGENCY PLAN REGULATORY CROSS REFERENCE

APPENDIX L
CONTINGENCY PLAN REGULATORY CROSS REFERENCE
FIRST CHEMICAL CORPORATION
PASCAGOULA, MISSISSIPPI

Contingency Plan Regulatory Cross-Reference

This table was prepared to cross-reference the requirements listed in 40 CFR, Subpart D (Contingency Plan and Emergency Procedures) with the equivalent requirements in this RCRA Contingency Plan. It lists each requirement in 40 CFR, provides a description of the requirement, and shows the location (page number) of the provision in this Plan.

Regulation Citation, 40 CFR	Description of Section	Page
§ 265.51	Purpose and implementation of contingency plan	1
§ 265.52(a)	Describe response actions by facility personnel	10-15
§ 265.52(b)	Incorporate waste management provisions into SPCC Plan	N/A
§ 265.52(c)	Description of coordination arrangements	21
§ 265.52(d)	List of emergency coordinators	Appendix A
§ 265.52(e)	List of emergency equipment	Appendix E
§ 265.52(f)	Evacuation plan	Appendix H
§ 265.53	Distribution of plan	Appendix I
§ 265.54	Amendment of plan	23
§ 265.55	Emergency coordinator requirements	2
§ 265.56(a)	Alarm activation and notifications	7-8
§ 265.56(b)	Identify and quantify release	8-9
§ 265.56(c)	Assess hazards to human health or the environment	9-10
§ 265.56(d)	Required notifications for events with impacts outside the facility	19
§ 265.56(e)	Actions to prevent recurrence or spread of event to other	15-16

	hazardous waste at the facility	
Regulation Citation, 40 CFR	**Description of Section**	**Sec**
§ 265.56(f)	Monitoring of operations that are shut down	15
§ 265.56(g)	Handling of material generated by response	18
§ 265.56(h)(1)	Assurance of waste compatibility	16
§ 265.56(h)(2)	Restoration of emergency equipment	15
§ 265.56(i)	Incident recordkeeping and reporting requirements	12, 15

ATTACHMENT II.7.

CLOSURE PLANS, POST-CLOSURE PLANS AND FINANCIAL ASSURANCE

Hazardous Waste Closure Plan
Incinerator and Hazardous Waste Tank Storage Systems

First Chemical Corporation
1001 Industrial Drive
Pascagoula, Mississippi 39581-3237
EPA I.D. No, MSD 033 417 031

July, 2013

Table of Contents

1.0 Closure

This closure plan applies to the First Chemical Corporation (FCC) facility in Jackson County, Mississippi, EPA I.D. No. MSD 0330417 031. FCC operates permitted hazardous waste storage tank systems and a hazardous waste incinerator. The earliest expected date for the start of closure is 2029.

This closure plan was prepared in accordance with the requirements of MHWMR 264, subparts G and H. The closure plan assumes a worst case cost scenario which would occur when the maximum hazardous waste inventory is stored on site and a third party contractor is hired to conduct the closure. The maximum waste inventory assumes that all hazardous waste storage tanks are filled to capacity. The hazardous waste incinerator does not store an inventory of hazardous waste other than possible surface contamination which may or may not be present. The baghouse hopper is equipped with an airlock feeder that continuously removes captured dust so that no inventory of hazardous waste dust is maintained.

This closure plan addresses the removal and disposal of hazardous waste inventory and decontamination of the equipment and containment structures. Decontamination of equipment surfaces and secondary containment will be accomplished using a combination of treatment with commercially available bio-remediation solutions and pressure washing with water. Because of the flammability of the waste materials, it will be necessary to flush the gases/vapors from the equipment to render it safe for cleaning operations.

Liquid wastes stored in the tank systems will be incinerated on-site if the incinerator is available. However, for calculation of closure costs by a third party, it is assumed that the waste will be disposed of at a permitted off-site TSD facility. The wastewater generated during the decontamination process will be collected in tank trucks or other suitable containers and discharged to the on-site wastewater system, if available and allowable under the wastewater permit. For calculation of closure costs by a third party, it is assumed that the wastewaters will be disposed of at a permitted off-site TSD facility.

2.0 Notification of Closure

At least 45 days before initiation of closure activities, FCC will notify the Executive Director of MDEQ that closure will begin on the date specified in the notice. This notice may also include a revised closure plan to propose any necessary changes to the decontamination procedures and standards, and/or any updates to the schedule for closure of the individual units. Any proposed changes to the facility closure plan will be submitted as a permit modification request consistent with the regulations and procedures in place at the time of closure.

3.0 Health and Safety

The FCC procedures for the protection of worker health and safety will be followed by those involved in the closure activities. For the purpose of this closure plan, the levels of worker protection are defined as follows:

Level B Protection	Level C Protection
Self contained breathing apparatus	Air purifying respirator and cartridges
Air lines and tanks	Steel-toe, leather boots
Steel-toe, leather boots	Boot covers
Boot covers	Tyvek or cotton coveralls
Tyvek coveralls	Chemically resistant gloves
Chemically resistant gloves	Hard hat
Hard hat	Eye protection
Eye protection	

Level D protection includes the standard health and safety equipment for construction activities, including hard hat, eye protection, steel-toe boots.

4.0 Cleanup Level

FCC intends to decontaminate all the tank systems and ancillary equipment in order to meet risk-based standards for the protection of human health and the environment as required by the Mississippi Department of Environmental Quality and USEPA at the time of facility closure. The risk based concentrations for groundwater will be used for comparison to the decontamination rinsate concentration of constituents of concern to determine if decontamination has been achieved.

Under certain circumstances, a wipe test may be used to locate areas that do or do not need more decontamination. It is understood that at the present time, there are no approved standards for demonstrating clean closure using a wipe test for RCRA constituents of concern, but a wipe test can demonstrate the presence or absence of constituents in the area tested.

5.0 Start of Closure

Closure of the facility will begin on the closure date specified in the notice of closure to the Executive Director, or upon the approval of any requested permit modification for closure, whichever is later. The first step in closure of the facility will be removal of the inventory of hazardous waste in the tank systems. The waste will be incinerated on-site or removed from the units and shipped off-site to a permitted incinerator.

6.0 Closure Standard

The hazardous waste units will be decontaminated so that they do not present a threat to human health or the environment. Samples of the final decontamination rinsate will be collected and analyzed for organic volatiles and semi-volatiles, and RCRA metals using SW-846 analytical methods. The test results will then be compared to EPA's groundwater screening concentration for any detected constituent. If any constituent exceeds the screening level, decontamination procedures will be repeated until all sample results are below the screening level. In the event that the detection limit for any constituent is above the screening level, the test will be repeated using a more sensitive EPA approved analytical procedure, if available.
In some instances it may not be practical to test an area or a piece of equipment for contamination by rinsate testing, and wipe testing may be employed. In that case, the location will be wipe tested using a suitable solvent. All constituents must be non-detect using a wipe test in order to demonstrate successful decontamination.

7.0 Decontamination Procedures

The closure/decontamination procedures shall include, but not necessarily be limited to, the following activities for each type of equipment:

7.1 Ancillary Equipment

All piping systems ancillary to the hazardous waste units will be purged of their contents using an inert gas. The purged liquids will be collected for incineration on-site or shipment off-site for disposal. The lines will then be triple rinsed with a solvent, such as toluene, to remove the listed waste constituents. The solvent will also be collected for on-site incineration or shipment off-site for disposal. The piping will then be washed with a bio-remediation chemical and water until the rinse water meets the closure standard. Ancillary equipment includes all piping, pumps, meters, etc. used for carrying wastes into or out of the hazardous waste storage tanks, and the incinerator feed piping system, including the spray nozzles, meters, etc.

7.2 Tank Systems

The tanks and their secondary containment structures will be considered the tank system for decontamination planning. Once the tanks have been emptied, it will be necessary to open the tanks and purge the flammable vapors with an inert gas , followed by air purging. The air within each tank will be tested to insure a safe work environment.

The internal surface of each tank and the surface of the secondary containment system will be washed using a non-toxic bioremediation solution followed by pressure washing. For the final rinse to collect a sample for confirmatory analysis, a water rinse using a minimum of water will be conducted. For confirmatory sampling, a minimal amount of water will be used to pressure wash the entire tank internal surface/ secondary containment unit surface, and a sample of the rinsate will be collected for analysis. FCC may also use wipe testing to check for residual contamination to help evaluate the progress of the decontamination process. Washing will be repeated as needed to decontaminate the surfaces.

Level D personal protection will be required unless entering a tank, in which case Level C protection is required.

7.1 Incinerator

It is anticipated that the final volume of hazardous waste to the incinerator will be the solvent used to flush the ancillary piping. Following the incineration of the last hazardous waste, the incinerator will be operated at normal operating temperature for at least 24 hours with natural gas only as fuel.

Once the incinerator has been purged with air and has cooled sufficiently, the feed piping will be decontaminated in accordance with the plan for ancillary piping as discussed in Section 7.1 above. The incinerator components will be unbuckled to allow access to the internal surfaces of the combustion chambers, ductwork, baghouse, and stack.

All refractory materials will be removed from the incinerator and disposed of as hazardous waste at a permitted disposal facility.

Internal surfaces of the incinerator components and the concrete containment under the incinerator will be pressure washed to remove any residual contamination. A minimum volume of rinsate will be used for the final rinse and confirmatory testing. Cleaning will be repeated as required to meet the closure standard.

Level C protection will be required for working inside the combustion chambers to remove refractory materials. Level D personal protection will be required for decontamination work, unless entering a confined space, in which case Level C protection is required.

8.0 Sampling and Analysis

All sampling and analyses performed during the closure period will be in accordance with the most recent methods and procedures found in SW-846, or other EPA approved methods. A detailed closure sampling plan and quality assurance/quality control plan will be submitted to the Executive Director for approval prior to the start of closure activities.

9.0 Closure Schedule

Table 1. summarizes the planned closure activities of the facility with an estimated timeline, as if no partial closures are anticipated

Table 1

Projected Schedule for Closure

Elapsed Time (months)	Events
-	Notification of MDEQ of closure
1.5	Final receipt of wastes at storage tanks and incinerator
4.5	Removal of waste inventory
6.0	Decontamination completed
7.5	Facility closed
9.5	Certification of closure submitted to MDEQ

ATTACHMENT I–2

POST-CLOSURE NOTICES

JACKSON CO LAND RECORDS
PO BOX 998
PASCAGOULA, MS 39568-0998
(228)-769-3131

ISSUED TO:FIRST CHEMICAL CORP

RECEIPT # 018231
DATE 10/17/2007 01:24:05 PM

DOCUMENT #	PGS	FEE
200733251	3	
NOTICE DE		12.00

Total Amount Due	$12.00
CASH	20.00
Total Payments:	$20.00
Change Issued:	$8.00

THANK YOU
Terry Miller
Chancery Clerk
Deputy: TTIVET

COPY

NOTICE THAT LAND HAS BEEN USED AS A SOLID WASTE DISPOSAL FACILITY

TO WHOM IT MAY CONCERN:

Pursuant to and in compliance with rule 1-3(e) of the Regulations Governing Solid Waste Processing and Disposal Facilities in Mississippi, notice is hereby given that the following described real property has been used as a solid waste disposal facility.

1. NAME OF THE OWNER OF THE LAND.

   First Chemical Corporation

2. LOCATION AND DESCRIPTION OF THE PROPERTY.

Pond No. 3 was used to manage hazardous waste and has undergone a certified closure in accordance with Mississippi Hazardous Waste Management Permit MSD 033 417 031. Future use of the former location of and present surface of Pond No. 3 is restricted to activities that will not disturb the final cover, except in accordance with the above-referenced Permit, during the post-closure care period. (Please see a copy of the survey attached as Exhibit "A" and made a part hereof).

DEED Recorded at, in the Registers Office of Deed Book 302, Page 609, Jackson County, Mississippi.

LEGAL DESCRIPTION:

Commencing at a point being the Northeast corner of Section 17, Township 8 South, Range 5 West, Jackson, Mississippi. Thence South 00°41'41" East a distance of 243.52 feet to a point being the point of beginning of following described property; thence South 01°37'27" East, 181.43 feet; thence South 00°08'54" West, 200.00 feet; thence West, 118.11 feet; thence North 01°25'38" West, 191.42 feet; thence North 03°34'55" East, 190.36 feet; thence East, 106.36 feet to the Point of Beginning, all lying in and being part of the Northeast Quarter of Section 17 and the Northwest Quarter of Section 16, containing 1.03 acres more or less.

Together With and Subject To: Covenants, Easements, and Restrictions of record.
Containing: 1.03 acres more or less.

COPY

IN WITNESS WHEREOF, this notice is hereby executed by James Freeman, owner or duly authorized agent, on this 17th day of October, 2007.

OWNER

FIRST CHEMICAL CORPORATION

By: James E. Freeman

Title: Mgr. Ops & Maint.

STATE OF Mississippi
COUNTY OF Jackson

Personally appeared before me, the undersigned authority in and for the said county and state on this 17th day of October, 2007 within my jurisdiction, the within named James Freeman, who acknowledged that (he)(she) is mgr. of operations & Maint. of First Chemical Corporation, and that in said representative capacity (he)(she) executed the above and foregoing instrument, after first having been duly authorized so to do.

Cheri K. Brown
NOTARY PUBLIC

My Commission expires:
(affix seal if applicable)

My Commission Expires: February 12, 2010

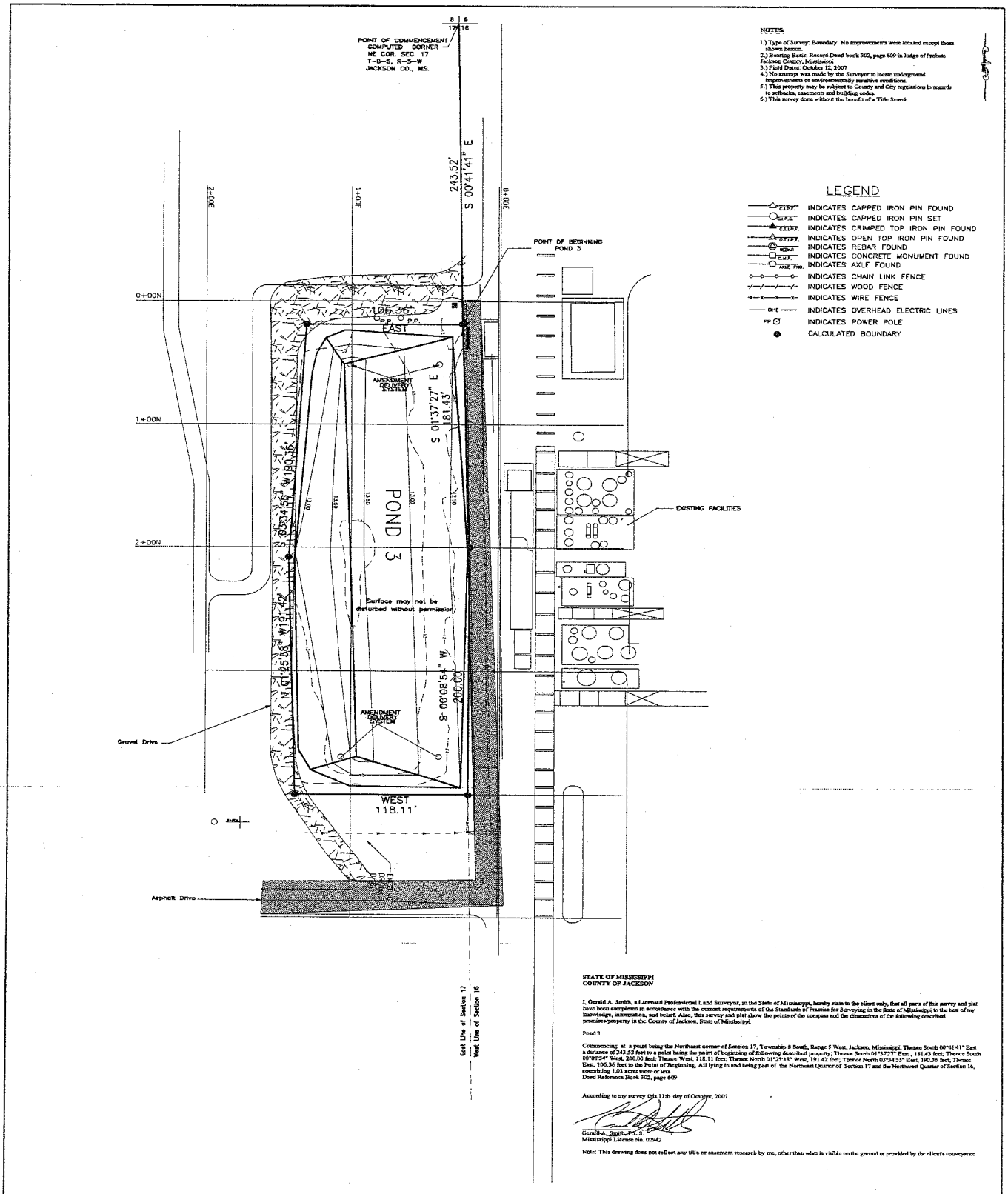
CHERI K. BROWN, JACKSON COUNTY, MS NOTARY PUBLIC My Commission Expires February 12, 2010

2007.1016 Notice on Deed Form

EXHIBIT "A"

Boundary Survey

COPY



NOTES:

1.) Type of Survey: Boundary. No improvements were located except those shown hereon.
2.) Bearing Basis: Record Deed book 302, page 609 in Judge of Probate Jackson County, Mississippi
3.) Field Dates: October 12, 2007
4.) No attempt was made by the Surveyor to locate underground improvements or environmentally sensitive conditions.
5.) This property may be subject to County and City regulations in regards to setbacks, easements and building codes.
6.) This survey done without the benefit of a Title Search.

LEGEND

- C.I.P.F. — INDICATES CAPPED IRON PIN FOUND
- C.I.P.S. — INDICATES CAPPED IRON PIN SET
- C.C.I.P.F. — INDICATES CRIMPED TOP IRON PIN FOUND
- O.T.I.P.F. — INDICATES OPEN TOP IRON PIN FOUND
- REBAR — INDICATES REBAR FOUND
- C.M.F. — INDICATES CONCRETE MONUMENT FOUND
- AXLE FND. — INDICATES AXLE FOUND
- INDICATES CHAIN LINK FENCE
- INDICATES WOOD FENCE
- INDICATES WIRE FENCE
- OHE — INDICATES OVERHEAD ELECTRIC LINES
- PP — INDICATES POWER POLE
- CALCULATED BOUNDARY

STATE OF MISSISSIPPI
COUNTY OF JACKSON

I, Gerald A. Smith, a Licensed Professional Land Surveyor, in the State of Mississippi, hereby state to the client only, that all parts of this survey and plat have been completed in accordance with the current requirements of the Standards of Practice for Surveying in the State of Mississippi to the best of my knowledge, information, and belief. Also, this survey and plat show the points of the compass and the dimensions of the following described premises property in the County of Jackson, State of Mississippi.

Pond 3

Commencing at a point being the Northeast corner of Section 17, Township 8 South, Range 5 West, Jackson, Mississippi; Thence South 00°41'41" East a distance of 243.52 feet to a point being the point of beginning of following described property; Thence South 01°37'27" East, 181.43 feet; Thence South 00°08'54" West, 200.00 feet; Thence West, 118.11 feet; Thence North 01°25'38" West, 191.42 feet; Thence North 03°34'55" East, 190.36 feet; Thence East, 106.36 feet to the Point of Beginning, All lying in and being part of the Northwest Quarter of Section 17 and the Northwest Quarter of Section 16, containing 1.03 acres more or less
Deed Reference Book 302, page 609

According to my survey this 11th day of October, 2007

Gerald A. Smith, P.L.S.
Mississippi License No. 02942

Note: This drawing does not reflect any title or easement research by me, other than what is visible on the ground or provided by the client's conveyance

REVISION NO.	DESCRIPTION	DATE	BY
REVISION NO.	DESCRIPTION	DATE	BY
REVISION NO.	DESCRIPTION	DATE	BY
REVISION NO.	DESCRIPTION	DATE	BY
REVISION NO.	DESCRIPTION	DATE	BY
REVISION NO.	DESCRIPTION	DATE	BY

SURVEY NOT VALID UNLESS SIGNED WITH ORIGINAL EMBOSSED SEAL

GERALD A. SMITH — LICENSED PROFESSIONAL LAND SURVEYOR — No. 02942 — STATE OF MISSISSIPPI

FIRST CHEMICAL CORP
PASCAGOULA, MS

BOUNDARY SURVEY

POND 3 CLOSURE

thompson ENGINEERING
3970 COTTAGE HILL RD. STE. 180 MOBILE, ALABAMA 36609
TEL: (251) 666-2442 FAX: (251) 666-6422

SCALE:	DRAWN BY:	APPROVED BY:	DATE:	JOB NO.:	DRAWING NO.:	FILE:
1" = 30'	C.A.S.	C.A.S.	OCTOBER 12, 2007	07-4024-1002	FIRSTCHEM\DUPONT.DWG	

ATTACHMENT I-3

CLOSURE COST ESTIMATE

First Chemical Corp.

Comments:

Activity	Units	Closure Cost
Incinerators/BIFs	1	$160,873.15
Tank Systems	1	$218,268.85
		$379,142.00
Additional Costs		$0.00
Total Estimated Cost		**$379,142.00**

Incinerators and BIFs Summary (IB_02-1)

Removal of Waste Residue (IB-03)	$321.89	
Decontamination of the Unit (IB-04)	$27,009.84	
Disassembly of Ancillary Piping (IB-05)	$698.25	
Demolition and Removal (IB-06)	$0.00	
Removal of Soil (IB-07)	$0.00	
Backfill and Grading (BF-01)	$0.00	
Decontamination (DC-01)	$27,009.84	
Sampling and Analysis (SA-02)	$6,674.22	
Monitoring Well Installation (MW-01)	$0.00	
Transportation (TR-01)	$3,843.00	
Treatment and Disposal (TD-01)	$15,798.36	
User Defined Cost (UD-01)	$29,154.56	
Subtotal of Closure Costs	$110,509.96	
Percentage of Engineering Expenses	10.0	%
Engineering Expenses	$11,051.00	
Certification of Closure (IB-08)	$12,500.00	
Subtotal	$134,060.96	
Percentage of Contingency Allowance	20.0	%
Contingency Allowance	$26,812.19	
Landfill Closure (Cover Installation) (CI-02)	$0.00	
TOTAL COST OF CLOSURE	$160,873.15	

Incinerators and BIFs Inventory (IB_01-1)

UNIT DESCRIPTION

Type of incinerator or BIF	Liquid	
Type of Air Pollution Control Device (APCD)	Baghouse	
Type of heat recovery system	water tube boiler	
Length of ancillary piping	100.0	ft

MAXIMUM VOLUME OF SCRUBBER LIQUID

Maximum Volume of Scrubber Liquid	0.0	gal

MAXIMUM VOLUME OF NONLIQUID WASTE

Volume of incinerator or BIF ash	0.0	yd3
Volume of baghouse/cyclone/ESP dust	1.0	yd3
Volume of Nonliquid Waste	1.0	yd3

SURFACE AREA OF INCINERATOR OR BIF

Surface area of combustion chamber(s)	360.0	ft2
Surface area of APCD	480.0	ft2
Surface area of heat recovery equipment	2,000.0	ft2
Surface area of exhaust gas duct	467.0	ft2
Surface area of stack	5,089.0	ft2
Surface Area of Incinerator or BIF	8,396.0	ft2

SURFACE AREA OF ANCILLARY PIPING AND CONTAINMENT AREAS

Surface area of ancillary piping	157.0	ft2
Surface area of containment areas	600.0	ft2
Surface area of other structures	0.0	ft2
Surface Area of Ancillary Piping and Containment Areas	757.0	ft2

VOLUME OF MATERIAL TO BE DEMOLISHED AND REMOVED

Volume of materials constituting the incineration system	0.0	ft3
Volume of ancillary piping materials	30.0	ft3
Volume of other miscellaneous materials (such as containment areas) to be removed	272.0	ft3
Volume of Materials to be Demolished and Removed	302.0	ft3
Volume of Materials to be Demolished and Removed in yd3	11.2	yd3

VOLUME OF CONTAMINATED SOIL TO BE REMOVED

Length	0.0	ft
Width	0.0	ft
Depth	0.0	ft

Facility: First Chemical Corp. **Unit:** Unit1 12/14/2015

Volume of Contaminated Soil to be Removed	0.0	ft3
Volume of Contaminated Soil to be Removed in yd3	0.0	yd3

Notes: Miscellaneous material removed is refractory from incinerator to be shipped to Emelle AL for disposal. See user defined sheet.

Incinerators and BIFs Rem. of Waste Residue (IB_03-1)

REMOVAL, TREATMENT, AND DISPOSAL OF SCRUBBER LIQUID		
Maximum volume of scrubber liquid	0.0	gal
Cost to remove, treat, and dispose of scrubber liquid per gallon	$1.16	per Gallon
Total Cost to Remove, Treat, and Dispose of Scrubber Liquid	$0.00	
REMOVAL, TREATMENT, AND DISPOSAL OF NONLIQUID WASTE RESIDUE		
Maximum volume of nonliquid waste	1.0	yd3
Maximum volume of nonliquid waste converted to tons	0.7	Tons
Volume Conversion Factor	0.6750	
Cost to remove, treat, and dispose of nonliquid waste per ton	$459.84	per Ton
Total Cost to Remove, Treat, and Dispose of Nonliquid Waste	$321.89	
TOTAL COST OF REMOVAL OF WASTE RESIDUE	$321.89	

Incinerators and BIFs Decontamination of the Unit (IB_04-1)

Surface area of unit to be cleaned	9,153.0	ft
Choose the appropriate level of PPE:	Protection Level C	
Labor and equipment cost per work hour	$118.05	per Work Hour
Work rate required to clean the unit	0.0250	Work hr per ft2
Number of hours required to clean the unit	228.8	Work hrs
Subtotal of labor and equipment cost to clean unit by steam cleaning	$27,009.84	
Rate	1.0	gals per ft2
Volume of decontamination fluid	9,153.0	gal
Decontamination fluid is contained in:	Bulk	
Number of drums required to contain decontamination fluid	0	Drums
Cost of one drum	$83.85	
Cost of drums needed to contain decontamination fluid	$0.00	
TOTAL COST OF DECONTAMINATION OF THE UNIT	$27,009.84	

Notes: RS Means crew C-29 adjusted to level C assuming 55% labor efficiency and 75% equipment productivity. Work rate based on epa guidance of 40 ft2 per hour for tank pressure washing. Used for secondary containment also.

Disassembly of Ancillary Piping (IB_05-1)

Length of ancillary piping to be disassembled	100.0	ft
Choose the appropriate level of PPE	Protection Level D	
Labor and equipment cost per work hour	$46.55	per Work Hour
Work rate required to disassemble one foot of ancillary piping	0.1500	Work hr per Ft
Number of hours required to disassemble ancillary piping	15.0	Work hrs
TOTAL COST OF DISASSEMBLY OF ANCILLARY PIPING	$698.25	

Incinerators and BIFs Demolition and Removal (IB_06-1)

Total volume of unit to be demolished	0.0	yd3
Choose the appropriate level of PPE	Protection Level D	
Labor and equipment cost per work hour	$79.96	per Work Hour
Work rate required to demolish and remove one ft3	0.0030	Work hr per yd3
Number of hours required to demolish and remove the unit	0.0	Work hrs
Subtotal of labor and equipment cost to demolish and remove the unit	$0.00	
Cost of mobilization and demobilization (flat rate)	$0.00	
TOTAL COST OF DEMOLITION AND REMOVAL	$0.00	

Incinerators and BIFs Certification of Closure (IB_08-1)

Number of units requiring certification of closure	1	Units
Cost of certification of closure per unit	$12,500.00	
TOTAL COST OF CERTIFICATION OF CLOSURE	$12,500.00	

Decontamination Summary (DC_01-1)

Decontamination of Unit by Steam Cleaning or Pressure Washing (DC-02)	$27,009.84
Decontamination of Unit by Sandblasting (DC-03)	$0.00
Decontamination of Heavy Equipment (DC-04)	$0.00
TOTAL COST OF DECONTAMINATION	$27,009.84

Decontamination by Steam Cleaning or Pressure Wash (DC_02-1)

Area of unit to be decontaminated	9,153.0	ft2
Choose the appropriate level of PPE	Protection Level C	
Labor and equipment cost per hour	$118.05	per Work Hour
Work rate to steam clean or pressure wash one ft2	0.0250	Work hr per ft2
Number of hours required to steam clean or pressure wash the unit	228.8	Work hrs
Subtotal of labor and equipment costs to decontaminate unit by steam cleaning or pressure washing	$27,009.84	
Ratio of decontamination fluid to area	1.0	gals per ft2
Volume of decontamination fluid generated	9,153.0	gal
Decontamination fluid container type:	Bulk	
Number of drums required to contain decontamination fluid for removal	0	Drums
Cost of one drum	$83.85	per Drum
Cost of drums needed to contain decontamination fluid	$0.00	
TOTAL COST OF DECONTAMINATION OF UNIT BY STEAM CLEANING OR PRESSURE WASHING	$27,009.84	

Decontamination of Heavy Equipment (DC_04-1)

Number of hours needed to decontaminate all heavy equipment	0.0	Work hrs
Cost of steam cleaner rental per hour	$8.72	per Hour
Subtotal of steam cleaner rental costs	$0.00	
Choose the appropriate level of PPE	Protection Level D	
Labor and equipment cost per hour	$68.45	per Work Hour
Subtotal of labor costs to decontaminate by steam cleaning	$0.00	
Ratio of decontamination fluid to hour	100.0	gals per hr
Volume of decontamination fluid generated	0.0	gal
Decontamination fluid container type:	Drums	
Number of drums required to contain decontamination fluid for removal	0	Drums
Cost of one drum	$83.85	per Drum
Cost of drums needed to contain decontamination fluid	$0.00	
Cost of construction of temporary decontamination area for heavy equipment.	$0.00	
Cost of demolition of temporary decontamination area for heavy equipment.	$0.00	
TOTAL COST OF DECONTAMINATION OF HEAVY EQUIPMENT	$0.00	

Sampling and Analysis Inventory (SA_01-1)

Number of Drilling and Subsurface Soil Samples (2.5-inch boring)	0	Samples
Number of Drilling and Subsurface Soil Samples (4-inch boring)	0	Samples
Number of Concrete Core Samples	2	Samples
Number of Wipe Sample Locations	0	Sample Location
Number of Surface Water and Liquid Sample Locations	10	Sample Location
Number of Soil, Sludge, and Sediment Soil Samples	0	Sample Location
Number of Groundwater Sample Locations	0	Sample Location
Number of Lysimeters to be Sampled	0	Lysimeters

Sampling and Analysis Summary (SA_02-1)

Drilling and Subsurface Soil Sample - 2.5-Inch-Diameter-Holes (SA-03)	$0.00
Drilling and Subsurface Soil Sample - 4-Inch-Diameter-Holes (SA-04)	$0.00
Concrete Core Sample (SA-05)	$1,524.32
Wipe Sample (SA-06)	$0.00
Surface Water and Liquid Sample (SA-07)	$5,149.90
Soil, Sludge, and Sediment Sample (SA-08)	$0.00
Groundwater Sample (SA-09)	$0.00
Soil-Pore Liquid Sample (SA-10)	$0.00
Analysis of Subsurface Soil Sample (SA-11)	$0.00
TOTAL SAMPLING AND ANALYSIS COST	$6,674.22

Concrete Core Samples (SA_05-1)

COLLECTION OF CORE SAMPLES

Number of corings to be drilled	2	Coring Samples
Choose the appropriate level of PPE	Protection Level D	
Labor and equipment cost per work hour	$76.03	per Work Hour
Work rate to drill each core sample to a 6-inch depth	1.0000	Work hrs per Sample
Number of hours required to drill 3-inch-diameter boring	2.0	Work hrs
Cost of Collection per Sampling Event	$152.06	per Event

ANALYSIS OF DRILLING SAMPLE

Cost of Analysis per Sampling Event	$610.10	per Event

SAMPLING EVENTS

Number of sampling events	2	Events per yr
TOTAL COST OF SAMPLING AND ANALYSIS OF CORE SAMPLES	$1,524.32	

Facility: First Chemical Corp. **Unit:** Unit1 12/14/2015

Concrete Core Samples (SA_05)
Cost of Analysis per Sampling Event

Method		Standard	Qty	Quick	Qty	Total
Targeted TCLP (metals, volatiles, semivolatiles only)	Both	$610.10	1	$1,220.20	0	$610.10

Surface Water and Liquid Samples (SA_07-1)

COLLECTION OF SURFACE WATER AND LIQUID SAMPLES		
Number of sampling locations	10	Sample Location
Choose the appropriate level of PPE	Protection Level D	
Labor and equipment cost per work hour	$91.88	per Work Hour
Work rate required to collect samples from one sampling location	0.5000	Work hrs per Sample
Number of hours required to collect all samples	5.0	Work hrs
Cost of Collection per Sampling Event	$459.40	per Event
ANALYSIS OF SURFACE WATER AND LIQUID SAMPLES		
Cost of Analysis per Sampling Event	$4,690.50	per Event
SAMPLING EVENTS		
Number of sampling events	1	Events
TOTAL COST OF SAMPLING AND ANALYSIS OF SURFACE WATER AND LIQUID SAMPLES	$5,149.90	

Facility: First Chemical Corp. **Unit:** Unit1 12/14/2015

Surface Water and Liquid Samples (SA_07)
Cost of Analysis per Sampling Event

Method		Standard	Qty	Quick	Qty	Total
Base neutral & acid extractable organics (SW 3510/SW 8270)	Liquid	$359.21	10	$718.42	0	$3,592.10
Metals, flame, per each (SW 7000s)	Both	$13.73	80	$27.46	0	$1,098.40

Treatment and Disposal Summary (TD_01-1)

Treatment and Disposal of Wastes (TD-02)	$253.00
Treatment and Disposal of Decontamination Fluids (TD-03)	$15,545.36
Total Cost of Treatment and Disposal	$15,798.36

Treatment and Disposal of Waste (TD_02-1)

SOLID WASTE TREATMENT AND DISPOSAL		
Solid Waste Type (Optional: Enter Name)	Bag House Dust	
Volume in yd3 of solid waste to be treated and disposed of	1.0	yd3
Treatment and disposal costs per yd3	$253.00	per yd3
Cost to Treat and Dispose of Solid Waste	$253.00	
LIQUID WASTE TREATMENT AND DISPOSAL		
Liquid Waste Type (Optional: Enter Name)	0	
Volume in gallons of liquid waste to be treated and disposed of	0.0	gal
Treatment and disposal costs per gallon	$1.67	per Gallon
Cost to Treat and Dispose of Liquid Waste	$0.00	
DRUMMED WASTE TREATMENT AND DISPOSAL		
Drummed Waste Type (Optional: Enter Name)	0	
Number of drums to be treated and disposed of	0	Drums
Treatment and disposal costs per drum	$0.00	per Drum
Cost to Treat and Dispose of Drummed Waste	$0.00	
TOTAL COST FOR TREATMENT AND DISPOSAL OF WASTE	$253.00	

Treatment and Disposal of Decon Fluid (TD_03-1)

Volume of decontamination fluid generated from closure activities

Volume of decontamination fluid from Primary Unit	9,153.0	gal
Volume of decontamination fluid generated by steam cleaning or pressure washing (DC-02)	9,153.0	gal
Volume of decontamination fluid from heavy equipment (DC-04)	0.0	gal
Total Volume of Decontamination Fluid	9,153.0	gal
Choose the appropriate level of PPE	Protection Level D	
Labor and equipment cost per hour	$77.41	per Work Hour
Work rate to pump decontamination fluid to a holding tank	0.0001	Work hr per gal
Number of hours required to pump decontamination fluid to a holding tank	0.9153	Work hrs
Subtotal of labor and equipment costs to pump decontamination fluid to a holding tank	$70.85	
Number of days required to rent a holding tank	1	Days
Holding tank rental fee (10,000 gal tank per day)	$189.00	per Day
Number of tanks required	1	Tanks
Subtotal of tank rental costs	$189.00	
Cost for treatment and disposal	$1.67	per Gallon
Treatment and disposal costs for bulk liquid	$15,285.51	
TOTAL COST TO TREAT AND DISPOSE OF DECONTAMINATION FLUID AS A BULK LIQUID	$15,545.36	

Notes: Waste disposal cost from CostPro average hazardous waste disposal sheet.

Transportation of Waste (TR_01-1)

TRANSPORTATION OF WASTE IN DRUMS

Number of drums of waste	0	Drums
Number of truckloads needed to transport waste in drums	0	Truckloads
Type of waste	Hazardous	
Number of miles	300.0	Mi
Cost per mile	$5.64	per Mile
Cost to transport one truckload of 55-gallon drums	$1,692.00	per Truckload
Cost to Transport Waste in Drums	$0.00	

TRANSPORTATION OF BULK LIQUID

Gallons of liquid waste	9,153.0	gal
Number of truckloads needed to transport bulk free liquid waste	2	Truckloads
Type of waste	Hazardous	
Number of miles	427.0	Mi
Cost per mile	$4.50	per Mile
Cost to transport one truckload of bulk liquids	$1,921.50	per Truckload
Cost to Transport Bulk Liquid Wastes	$3,843.00	

TRANSPORTATION OF BULK WASTE

Number of waste debris boxes	0	Containers
Number of truckloads needed to transport bulk waste	0	Truckloads
Type of waste	Hazardous	
Number of miles	300.0	Mi
Cost per mile	$5.64	per Mile
Cost to transport one truckload of bulk waste	$1,692.00	per Truckload
Cost to Transport Bulk Waste	$0.00	
TOTAL COST OF TRANSPORTATION OF WASTE	$3,843.00	

Notes: Used transportation cost of 4.50 per mile based on current EPA guidance.

User Defined Activity (UD_01-2)

NAME OF CLOSURE OR POST-CLOSURE ACTIVITY	Removal of Refractory	
Number of units of work to be performed	1,130	
Type of unit	Tons	
Appropriate level of PPE	Protection Level B	
Labor, material, and equipment cost per work hour	$395.45	
Work rate to perform one unit of activity	0.0340	Work hrs per Unit
Number of hours required to perform activity	38.4	Work hrs
Additional cost per unit	$0.00	per Unit
Cost to conduct activity	$15,185.28	

Other cost(s) associated with this activity

Description of other costs	Disposal of Refractory
Cost	$3,400.00
Description of other costs	Transportation to Emelle AL
Cost	$900.00
Description of other costs	0
Cost	$0.00
Description of other costs	0
Cost	$0.00
Description of other costs	0
Cost	$0.00
TOTAL COST OF USER DEFINED ACTIVITY	$19,485.28

Notes: crew of 2 common laborers 1 equipment operator 1 front end loader costs adjusted to level C labor productivity 55% equipment productivity 75%. Work rate based on RS Means rate for removal of brick and mortar flooring. Surface area of refractory removed = 1130 ft2 total volume 272 ft3 13.6 tons.

User Defined Activity (UD_01-1)

NAME OF CLOSURE OR POST-CLOSURE ACTIVITY	Unbuckle Incinerator components to Provide Access	
Number of units of work to be performed	1	
Type of unit	Tons	
Appropriate level of PPE	Protection Level B	
Labor, material, and equipment cost per work hour	$573.08	
Work rate to perform one unit of activity	16.0000	Work hrs per Unit
Number of hours required to perform activity	16.0	Work hrs
Additional cost per unit	$0.00	per Unit
Cost to conduct activity	$9,169.28	

Other cost(s) associated with this activity

Description of other costs	Mobilization
Cost	$500.00
Description of other costs	0
Cost	$0.00
Description of other costs	0
Cost	$0.00
Description of other costs	0
Cost	$0.00
Description of other costs	0
Cost	$0.00
TOTAL COST OF USER DEFINED ACTIVITY	$9,669.28

Notes: Disconnect and cap all lines to incinerator(i.e. natural gas waste feeds water etc.) Disassemble components of incinerator and set to the side connecting ductwork between components to allow access for removal and cleaning activities.Assume 25 ton crane and operator crew A-31 @ 264.34/hr. Assume 2 welders with cutting torches (96.52/hr each Crew E-25) and 2 laborers @ 57.85/hr each. Allow 2 work days to complete task. Crane will remain outside HWMU.

Tank Systems Summary (TS_02-1)

Removal of Waste (TS-03)	$2,815.20	
Tank System Purging (ignitable waste only) (TS-04)	$2,798.51	
Flushing the Tank and Piping (TS-05)	$87.98	
Excavation, Disassembly, and Loading (TS-06)	$0.00	
Demolition and Removal of Containment System (TS-07)	$0.00	
Removal of Soil (TS-08)	$0.00	
Backfill and Grading (BF-01)	$0.00	
Decontamination (DC-01)	$15,275.67	
Sampling and Analysis (SA-02)	$8,848.80	
Monitoring Well Installation (MW-01)	$0.00	
Transportation (TR-01)	$17,293.50	
Treatment and Disposal (TD-01)	$101,177.99	
User Defined Cost (UD-01)	$5,693.90	
Subtotal of Closure Costs	$153,991.55	
Percentage of Engineering Expenses	10.0	%
Engineering Expenses	$15,399.16	
Certification of Closure (TS-09)	$12,500.00	
Subtotal	$181,890.71	
Percentage of Contingency Allowance	20.0	%
Contingency Allowance	$36,378.14	
Landfill Closure (Cover Installation) (CI-02)	$0.00	
TOTAL COST OF CLOSURE	$218,268.85	

Tank Systems Inventory (TS_01-1)

UNIT DESCRIPTION AND MAXIMUM PERMITTED CAPACITY

Type of tank system	Aboveground	
Height or length of tank	0.0	ft
Diameter of tank	12.0	ft
Maximum permitted capacity of the tank	52,520.0	gal
Total length of ancillary piping	5,000.0	ft
Nominal diameter of ancillary piping	2.0	in
Maximum capacity of ancillary piping	816.0	gal
Maximum capacity of tank and ancillary piping	53,336.0	gal

SURFACE AREA OF TANK SYSTEM

Surface area of tank (interior and exterior)	3,452.0	ft2

VOLUME OF TANK SYSTEM TO BE REMOVED

Volume of Tank System to be Removed	7,130.0	ft3
Volume of Tank System to be Removed in yd3	264.1	yd3

SURFACE AREA OF SECONDARY CONTAINMENT SYSTEM PAD

Length	25.0	ft
Width	70.0	ft
Surface Area of Secondary Containment System Pad	1,750.0	ft2
Surface Area of Secondary Containment System Pad in yd2	194.4	yd2

VOLUME OF SECONDARY CONTAINMENT SYSTEM PAD

Thickness	0.5	ft
Volume of Secondary Containment Pad	32.4	yd3

SURFACE AREA OF SECONDARY CONTAINMENT SYSTEM BERM

Total Length	95.0	ft
Height	4.0	ft
Surface Area of Secondary Containment System Berm	380.0	ft2
Surface Area of Secondary Containment System Berm in yd2	42.2	yd2

VOLUME OF SECONDARY CONTAINMENT SYSTEM BERM

Thickness	0.5	ft
Volume of Secondary Containment System Berm	7.0	yd3

SURFACE AREA OF OTHER STRUCTURES IN SECONDARY CONTAINMENT SYSTEM

Surface Area of Other Structures	0.0	ft2
Surface Area of Other Structures in yd2	0.0	yd2

VOLUME OF OTHER STRUCTURES IN SECONDARY CONTAINMENT SYSTEM

Volume of Other Structures	0.0	yd3

VOLUME OF CONTAMINATED SOIL TO BE REMOVED

Length	0.0	ft
Width	0.0	ft
Depth	0.0	ft
Volume of Contaminated Soil to be Removed	0.0	ft3
Volume of Contaminated Soil to be Removed in yd3	0.0	yd3

Notes:

system of 5 tanks

Tank Systems Removal of Waste (TS_03-1)

Maximum volume of waste to be removed from the tank and ancillary piping	53,336.0	gal
Choose the appropriate level of PPE	Protection Level D	
Labor and equipment cost per work hour	$175.95	per Work Hour
Work rate required to remove waste from tank and ancillary piping	0.0003	Work hr per gal
Number of hours required to remove waste from tank and ancillary piping	16.0	Work hrs
TOTAL COST OF REMOVAL OF WASTE FROM TANK AND ANCILLARY PIPING	$2,815.20	

Tank Systems Purging (TS_04-1)

Maximum capacity of the tank system	52,520.0	gal
Amount of solid carbon dioxide (dry ice) needed per gal capacity	1.5	lb per 100 gal
Amount of dry ice needed to purge tank system	787.8	lb
Cost of dry ice	$2.64	per Pound
Cost of dry ice needed to purge tank system	$2,079.79	
Choose the appropriate level of PPE	Protection Level D	
Labor cost per work hour	$68.45	per Work Hour
Work rate required to purge tank	0.0002	Work hr per gal
Number of hours required to purge tank	10.5	Work hrs
Labor Cost to Purge Tank System	$718.72	
TOTAL COST OF TANK SYSTEM PURGING	$2,798.51	

Flushing the Tank and Piping (TS_05-1)

Maximum capacity of the tank and ancillary piping	850.0	gal
Number of times tank and ancillary piping are flushed	1	
Total volume of flushing solution	850.0	gal
Choose the appropriate level of PPE	Protection Level D	
Labor and equipment cost per work hour	$175.95	per Work Hour
Work rate required to flush tank and ancillary piping	0.0006	Work hr per gal
Number of hours required to flush tank and ancillary piping	0.5	Work hrs
Subtotal of labor and equipment cost to flush tank and ancillary piping	$87.98	
Flushing solution is contained in:	Bulk	
Number of drums required to contain flushing solution	0	Drums
Cost of one drum	$83.85	
Cost of drums needed to contain flushing solution	$0.00	
TOTAL COST TO FLUSH TANK AND ANCILLARY PIPING	$87.98	

Tank Systems Certification of Closure (TS_09-1)

Number of units requiring certification of closure	1	Units
Cost of certification of closure per unit	$12,500.00	
TOTAL COST OF CERTIFICATION OF CLOSURE	$12,500.00	

Decontamination Summary (DC_01-1)

Decontamination of Unit by Steam Cleaning or Pressure Washing (DC-02)	$15,275.67
Decontamination of Unit by Sandblasting (DC-03)	$0.00
Decontamination of Heavy Equipment (DC-04)	$0.00
TOTAL COST OF DECONTAMINATION	$15,275.67

Decontamination by Steam Cleaning or Pressure Wash (DC_02-1)

Area of unit to be decontaminated	5,176.0	ft2
Choose the appropriate level of PPE	Protection Level C	
Labor and equipment cost per hour	$118.05	per Work Hour
Work rate to steam clean or pressure wash one ft2	0.0250	Work hr per ft2
Number of hours required to steam clean or pressure wash the unit	129.4	Work hrs
Subtotal of labor and equipment costs to decontaminate unit by steam cleaning or pressure washing	$15,275.67	
Ratio of decontamination fluid to area	1.0	gals per ft2
Volume of decontamination fluid generated	5,176.0	gal
Decontamination fluid container type:	Bulk	
Number of drums required to contain decontamination fluid for removal	0	Drums
Cost of one drum	$83.85	per Drum
Cost of drums needed to contain decontamination fluid	$0.00	
TOTAL COST OF DECONTAMINATION OF UNIT BY STEAM CLEANING OR PRESSURE WASHING	$15,275.67	

Notes: RS Means crew C-29 adjusted to level C assuming 55% labor efficiency and 75% equipment productivity. Work rate based on epa guidance of 40 ft2 per hour for tank pressure washing used for secondary containment also.

Sampling and Analysis Inventory (SA_01-1)

Number of Drilling and Subsurface Soil Samples (2.5-inch boring)	0	Samples
Number of Drilling and Subsurface Soil Samples (4-inch boring)	0	Samples
Number of Concrete Core Samples	2	Samples
Number of Wipe Sample Locations	0	Sample Location
Number of Surface Water and Liquid Sample Locations	8	Sample Location
Number of Soil, Sludge, and Sediment Soil Samples	0	Sample Location
Number of Groundwater Sample Locations	0	Sample Location
Number of Lysimeters to be Sampled	0	Lysimeters

Sampling and Analysis Summary (SA_02-1)

Drilling and Subsurface Soil Sample - 2.5-Inch-Diameter-Holes (SA-03)	$0.00
Drilling and Subsurface Soil Sample - 4-Inch-Diameter-Holes (SA-04)	$0.00
Concrete Core Sample (SA-05)	$1,524.32
Wipe Sample (SA-06)	$0.00
Surface Water and Liquid Sample (SA-07)	$7,324.48
Soil, Sludge, and Sediment Sample (SA-08)	$0.00
Groundwater Sample (SA-09)	$0.00
Soil-Pore Liquid Sample (SA-10)	$0.00
Analysis of Subsurface Soil Sample (SA-11)	$0.00
TOTAL SAMPLING AND ANALYSIS COST	$8,848.80

Concrete Core Samples (SA_05-1)

COLLECTION OF CORE SAMPLES

Number of corings to be drilled	2	Coring Samples
Choose the appropriate level of PPE	Protection Level D	
Labor and equipment cost per work hour	$76.03	per Work Hour
Work rate to drill each core sample to a 6-inch depth	1.0000	Work hrs per Sample
Number of hours required to drill 3-inch-diameter boring	2.0	Work hrs
Cost of Collection per Sampling Event	$152.06	per Event

ANALYSIS OF DRILLING SAMPLE

Cost of Analysis per Sampling Event	$610.10	per Event

SAMPLING EVENTS

Number of sampling events	2	Events per yr
TOTAL COST OF SAMPLING AND ANALYSIS OF CORE SAMPLES	$1,524.32	

Facility: First Chemical Corp. **Unit:** Unit1 12/14/2015

Concrete Core Samples (SA_05)
Cost of Analysis per Sampling Event

Method		Standard	Qty	Quick	Qty	Total
Targeted TCLP (metals, volatiles, semivolatiles only)	Both	$610.10	1	$1,220.20	0	$610.10

Surface Water and Liquid Samples (SA_07-1)

COLLECTION OF SURFACE WATER AND LIQUID SAMPLES		
Number of sampling locations	8	Sample Location
Choose the appropriate level of PPE	Protection Level D	
Labor and equipment cost per work hour	$91.88	per Work Hour
Work rate required to collect samples from one sampling location	0.5000	Work hrs per Sample
Number of hours required to collect all samples	4.0	Work hrs
Cost of Collection per Sampling Event	$367.52	per Event
ANALYSIS OF SURFACE WATER AND LIQUID SAMPLES		
Cost of Analysis per Sampling Event	$548.04	per Event
SAMPLING EVENTS		
Number of sampling events	8	Events
TOTAL COST OF SAMPLING AND ANALYSIS OF SURFACE WATER AND LIQUID SAMPLES	$7,324.48	

Facility: First Chemical Corp. **Unit:** Unit1 12/14/2015

Surface Water and Liquid Samples (SA_07)
Cost of Analysis per Sampling Event

Method		Standard	Qty	Quick	Qty	Total
Base neutral & acid extractable organics (EPA 625)	Liquid	$359.21	1	$718.42	0	$359.21
Volatile organic analysis (EPA 624)	Liquid	$188.83	1	$377.66	0	$188.83

Treatment and Disposal Summary (TD_01-1)

Treatment and Disposal of Wastes (TD-02)	$89,071.12
Treatment and Disposal of Decontamination Fluids (TD-03)	$12,106.87
Total Cost of Treatment and Disposal	$101,177.99

Treatment and Disposal of Waste (TD_02-1)

SOLID WASTE TREATMENT AND DISPOSAL		
Solid Waste Type (Optional: Enter Name)	0	
Volume in yd3 of solid waste to be treated and disposed of	0.0	yd3
Treatment and disposal costs per yd3	$0.00	per yd3
Cost to Treat and Dispose of Solid Waste	$0.00	
LIQUID WASTE TREATMENT AND DISPOSAL		
Liquid Waste Type (Optional: Enter Name)	Inventory and Solvent flush	
Volume in gallons of liquid waste to be treated and disposed of	53,336.0	gal
Treatment and disposal costs per gallon	$1.67	per Gallon
Cost to Treat and Dispose of Liquid Waste	$89,071.12	
DRUMMED WASTE TREATMENT AND DISPOSAL		
Drummed Waste Type (Optional: Enter Name)	0	
Number of drums to be treated and disposed of	0	Drums
Treatment and disposal costs per drum	$0.00	per Drum
Cost to Treat and Dispose of Drummed Waste	$0.00	
TOTAL COST FOR TREATMENT AND DISPOSAL OF WASTE	$89,071.12	

Notes: High BTU low chlorine content waste fuel.

Treatment and Disposal of Decon Fluid (TD_03-1)

Volume of decontamination fluid generated from closure activities

Volume of decontamination fluid from Primary Unit	850.0	gal
Volume of decontamination fluid generated by steam cleaning or pressure washing (DC-02)	5,176.0	gal
Volume of decontamination fluid from heavy equipment (DC-04)	0.0	gal
Total Volume of Decontamination Fluid	6,026.0	gal
Choose the appropriate level of PPE	Protection Level D	
Labor and equipment cost per hour	$77.41	per Work Hour
Work rate to pump decontamination fluid to a holding tank	0.0001	Work hr per gal
Number of hours required to pump decontamination fluid to a holding tank	0.6026	Work hrs
Subtotal of labor and equipment costs to pump decontamination fluid to a holding tank	$46.65	
Number of days required to rent a holding tank	1	Days
Holding tank rental fee (10,000 gal tank per day)	$189.00	per Day
Number of tanks required	1	Tanks
Subtotal of tank rental costs	$189.00	
Cost for treatment and disposal	$1.97	per Gallon
Treatment and disposal costs for bulk liquid	$11,871.22	
TOTAL COST TO TREAT AND DISPOSE OF DECONTAMINATION FLUID AS A BULK LIQUID	$12,106.87	

Transportation of Waste (TR_01-1)

TRANSPORTATION OF WASTE IN DRUMS

Number of drums of waste	0	Drums
Number of truckloads needed to transport waste in drums	0	Truckloads
Type of waste	Hazardous	
Number of miles	300.0	Mi
Cost per mile	$4.50	per Mile
Cost to transport one truckload of 55-gallon drums	$1,350.00	per Truckload
Cost to Transport Waste in Drums	$0.00	

TRANSPORTATION OF BULK LIQUID

Gallons of liquid waste	59,396.0	gal
Number of truckloads needed to transport bulk free liquid waste	9	Truckloads
Type of waste	Hazardous	
Number of miles	427.0	Mi
Cost per mile	$4.50	per Mile
Cost to transport one truckload of bulk liquids	$1,921.50	per Truckload
Cost to Transport Bulk Liquid Wastes	$17,293.50	

TRANSPORTATION OF BULK WASTE

Number of waste debris boxes	0	Containers
Number of truckloads needed to transport bulk waste	0	Truckloads
Type of waste	Hazardous	
Number of miles	427.0	Mi
Cost per mile	$5.64	per Mile
Cost to transport one truckload of bulk waste	$2,408.28	per Truckload
Cost to Transport Bulk Waste	$0.00	
TOTAL COST OF TRANSPORTATION OF WASTE	$17,293.50	

Notes: Used current EPA guidance for transportation cost of 4.50 per loaded mile for bulk liquids.

User Defined Activity (UD_01-1)

NAME OF CLOSURE OR POST-CLOSURE ACTIVITY	Flush piping with solvent	
Number of units of work to be performed	1	
Type of unit	Tons	
Appropriate level of PPE	Protection Level B	
Labor, material, and equipment cost per work hour	$175.95	
Work rate to perform one unit of activity	2.0000	Work hrs per Unit
Number of hours required to perform activity	2.0	Work hrs
Additional cost per unit	$0.00	per Unit
Cost to conduct activity	$351.90	

Other cost(s) associated with this activity

Description of other costs	solvent cost
Cost	$2,000.00
Description of other costs	solvent disposal
Cost	$1,420.00
Description of other costs	Waste transport to Deer Park
Cost	$1,922.00
Description of other costs	0
Cost	$0.00
Description of other costs	0
Cost	$0.00
TOTAL COST OF USER DEFINED ACTIVITY	$5,693.90

Notes: 850 gallons of solvent @ 4.00 per gallon used to rinse piping. Solvent disposed of at 1.67/gal (CostPro average) transported to Deer Park TX at 4.5/mile.

ATTACHMENT I-4

POST-CLOSURE COST ESTIMATE

Pond 3 Post-Closure Cost Estimate
First Chemical Corporation, EPA I.D. No. MSD 033 417 031

Activity		Annual Cost	
1 . Pond 3 Cap maintenance (mowing, repairs of erosion or subsidence)		**$6,500**	
2. Groundwater recovery trench operation, maintenance, water treatment (water treatment at $.05/gal @ 1 gpm)		**$108,660**	
3. Semiannual Groundwater sampling, analysis and reporting (9 wells)		**$102,535**	
	Total	**$217,695**	
4. Total cost for post-closure period with 30 years remaining		**$6,530,850**	(2013 $)
2014 inflation adjustment @ 1.015		**$6,628,813**	
2015 inflation adjustment @ 1.015		**$6,728,245**	

Note: The annual costs for groundwater corrective action and monitoring shown above represent 50% of the actual projected costs. The remaining 50% is allocated to EPA HSWA corrective action, and a separate financial assurance mechanism under the HSWA permit.

ATTACHMENT I-5

FINANCIAL ASSURANCE DOCUMENTATION

CLOSURE, POST-CLOSURE, AND LIABILITY REQUIREMENTS

R I D E R

To be attached to and form part of Bond No. **SU1112860**

on behalf of **The Chemours Company FC, LLC** , as Principal

in favor of **Mississippi Department of Environmental Quality**

in the amount of **Two Million Nine Hundred Thirty Five Thousand Four Hundred Ninety Nine & 58/100**

($ 2,935,499.58)

Effective: **April 1, 2012**

NOW THEREFORE, it is hereby agreed and understood that the bond is amended to read as follows:

1) The aggregate penal sum of this bond
   From: $2,935,499.58
   To: $3,743,264.00
2) The aggregate penal sum of this bond is broken down as follows:
   Closure: $379,142.00 (of the tank system and incinerator)
   Post Closure: $3,364,122.00 (for Pond 3)

Effective: 01/28/2016

PROVIDED, HOWEVER, that all conditions of this bond remain unchanged.

Signed, Sealed and Dated this **28th** day of **January** , **2016** .

The Chemours Company FC, LLC

BY: _____

Sameer Ralhan, Treasurer
The Chemours Company

Arch Insurance Company

BY: _____

Cori Riddle, Attorney-in-Fact

AIC 0000158529

THIS POWER OF ATTORNEY IS NOT VALID UNLESS IT IS PRINTED ON BLUE BACKGROUND.

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated. Not valid for Mortgage, Note, Loan, Letter of Credit, Bank Deposit, Currency Rate, Interest Rate or Residential Value Guarantees.

POWER OF ATTORNEY

Know All Persons By These Presents:

That the Arch Insurance Company, a corporation organized and existing under the laws of the State of Missouri, having its principal administrative office in Jersey City, New Jersey (hereinafter referred to as the "Company") does hereby appoint:

Cori Riddle, Francis J. Curran, Marina A. Kenney and Sally Phillips of Philadelphia, PA (EACH)

its true and lawful Attorney(s)in-Fact, to make, execute, seal, and deliver from the date of issuance of this power for and on its behalf as surety, and as its act and deed:

Any and all bonds, undertakings, recognizances and other surety obligations, in the penal sum not exceeding Ninety Million Dollars ($90,000,000.00).

This authority does not permit the same obligation to be split into two or more bonds in order to bring each such bond within the dollar limit of authority as set forth herein.

The execution of such bonds, undertakings, recognizances and other surety obligations in pursuance of these presents shall be as binding upon the said Company as fully and amply to all intents and purposes, as if the same had been duly executed and acknowledged by its regularly elected officers at its principal administrative office in Jersey City, New Jersey.

This Power of Attorney is executed by authority of resolutions adopted by unanimous consent of the Board of Directors of the Company on September 15, 2011, true and accurate copies of which are hereinafter set forth and are hereby certified to by the undersigned Secretary as being in full force and effect:

"VOTED, That the Chairman of the Board, the President, or the Executive Vice President, or any Senior Vice President, of the Surety Business Division, or their appointees designated in writing and filed with the Secretary, or the Secretary shall have the power and authority to appoint agents and attorneys-in-fact, and to authorize them subject to the limitations set forth in their respective powers of attorney, to execute on behalf of the Company, and attach the seal of the Company thereto, bonds, undertakings, recognizances and other surety obligations obligatory in the nature thereof, and any such officers of the Company may appoint agents for acceptance of process."

This Power of Attorney is signed, sealed and certified by facsimile under and by authority of the following resolution adopted by the unanimous consent of the Board of Directors of the Company on September 15, 2011:

VOTED, That the signature of the Chairman of the Board, the President, or the Executive Vice President, or any Senior Vice President, of the Surety Business Division, or their appointees designated in writing and filed with the Secretary, and the signature of the Secretary, the seal of the Company, and certifications by the Secretary, may be affixed by facsimile on any power of attorney or bond executed pursuant to the resolution adopted by the Board of Directors on September 15, 2011, and any such power so executed, sealed and certified with respect to any bond or undertaking to which it is attached, shall continue to be valid and binding upon the Company.

In Testimony Whereof, the Company has caused this instrument to be signed and its corporate seal to be affixed by their authorized officers, this 22nd day of June, 2015.

Attested and Certified

Arch Insurance Company

Patrick K. Nails, Secretary

David M. Finkelstein, Executive Vice President

STATE OF PENNSYLVANIA SS

COUNTY OF PHILADELPHIA SS

I, Helen Szafran, a Notary Public, do hereby certify that Patrick K. Nails and David M. Finkelstein personally known to me to be the same persons whose names are respectively as Secretary and Executive Vice President of the Arch Insurance Company, a Corporation organized and existing under the laws of the State of Missouri, subscribed to the foregoing instrument, appeared before me this day in person and severally acknowledged that they being thereunto duly authorized signed, sealed with the corporate seal and delivered the said instrument as the free and voluntary act of said corporation and as their own free and voluntary acts for the uses and purposes therein set forth.

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
HELEN SZAFRAN, Notary Public
City of Philadelphia, Phila. County
My Commission Expires October 3, 2017

Helen Szafran, Notary Public
My commission expires 10/03/2017

CERTIFICATION

I, Patrick K. Nails, Secretary of the Arch Insurance Company, do hereby certify that the attached Power of Attorney dated June 22, 2015 on behalf of the person(s) as listed above is a true and correct copy and that the same has been in full force and effect since the date thereof and is in full force and effect on the date of this certificate; and I do further certify that the said David M. Finkelstein, who executed the Power of Attorney as Executive Vice President, was on the date of execution of the attached Power of Attorney the duly elected Executive Vice President of the Arch Insurance Company.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seal of the Arch Insurance Company on this 28th day of January, 2016.

Patrick K. Nails, Secretary

This Power of Attorney limits the acts of those named therein to the bonds and undertakings specifically named therein and they have no authority to bind the Company except in the manner and to the extent herein stated.

PLEASE SEND ALL CLAIM INQUIRIES RELATING TO THIS BOND TO THE FOLLOWING ADDRESS:

Arch Insurance – Surety Division
3 Parkway, Suite 1500
Philadelphia, PA 19102

ATTACHMENT III.1.

PROCESS INFORMATION

SECTION D

PROCESS INFORMATION

D-1 Container Design

not applicable

D-2 Tank Systems

D-2a Tank Systems Descriptions

FCC will utilize the storage capacity of 5 aboveground storage tanks for the storage of hazardous wastes. The hazardous waste storage tanks are above ground, covered and located within secondary containment. The tanks are located on raised concrete pads to facilitate the early detection of leaks, should one occur. Since the wastes contained in the tanks are ignitable, the tanks are nitrogen blanketed to prevent the accidental ignition of vapors. All tanks conform with NFPA buffer zone requirements for ignitable materials. The location of the tank systems is shown in Figure A-1.

D-2a(1) Dimensions and Capacity of Each Tank

Table D-1 presents the construction and operating information for each tank, including dimensions and capacity.

D-2a(2) Description of Feed Systems, Safety Cutoff, Bypass Systems, and Pressure Controls

The tanks are closed top tanks which are nitrogen blanketed with conservation vents and overfill prevention. Tank TK-1057 is vented to a scrubber for additional vapor emission control. The tanks are maintained at atmospheric pressure and temperatures sufficient to maintain an acceptable viscosity of the wastes and prevent formation of solids. Temperature limits have been imposed in previous permits, however, FCC requests that temperature limits not be imposed in the permit renewal, since there is no reason for such limits.

The fill level on each tank is maintained at the 90% full level to provide adequate freeboard. Should the actual level of the tank exceed the 90% level, an alarm will sound to bring attention to the condition and the flow will be shut off automatically by use of automatic solenoid valves.

K083 waste is delivered to the primary slop tank (TK-1058) from the process unit. From the primary slop tank, the waste is pumped to the decant tank (TK-1059). The organic fraction is then pumped to the waste feed tank (TK-1060) where it is accumulated prior to incineration. For operational flexibility, the #4 slop tank, TK-1403, may also be used to store K083 waste prior to feeding to the incinerator.

K104 waste is received from solvent recovery into the solvent recovery bottoms tank (TK-1057) where it is accumulated prior to incineration.

D001 and other characteristic wastes are received from the specialty chemical operations into the #4 slop tank (TK-1403). These wastes are staged in this tank prior to being incinerated. This tank may

also be used to store other approved wastes (K083, U220, D018, D036, F003, F004, or F005) prior to feeding to the incinerator.

(NOTE: Portable trailers may also be used, as needed, to feed FCC wastes directly to the incinerator. These trailers are constructed of materials compatible with the waste to be contained and, when used, the trailers are managed as <90 day containers.)

D-2a(3) Diagram of Piping, Instrumentation, and Process Flow

Figure D-1 is a process flow diagram of the hazardous waste storage tanks indicating piping arrangements, key instrumentation and flow control devices.

D-2a(4) Ignitable, Reactive, and Incompatible Wastes

The hazardous waste storage tanks are nitrogen blanketed to minimize the potential for ignition of tank vapors. Smoking is prohibited in the plant and is strictly enforced. No smoking signs are posted. Maintenance procedures involving "hot" work such as welding, are performed only after an extensive safety evaluation, including tests for the presence of ignitable vapors, and a special permit is issued in accordance with FCC's safety policies and directives. The tanks are properly grounded to avoid issues with static electricity.

Although K083 and K104 are not considered incompatible or reactive, they are managed separately because of operational considerations. Mixing of the two wastes could result in the formation of solids that would create material handling issues.

D-2b Existing Tank Systems

D-2b(1) Assessment of Existing Tank System's Integrity

Storage tanks TK-1059 and -1060 are existing tank systems because they were in-service prior to July 14, 1986. Secondary containment for these tanks has been provided and additional details regarding the design and operation of the secondary containment structures is presented in section D-2d. Since these tanks were equipped with secondary containment prior to July 14, 1986, no integrity assessment under MHWMR 264.191(a) was required.

D-2c New Tank Systems

D-2c(1) Assessment of New Tank System's Integrity

Tanks TK-1057, -1058 and -1403 are considered "new" tanks since they were placed in service after July 14, 1986. The structural integrity assessments for these tanks are located in Attachment D-1. Tank TK-1058 was replaced-in-kind in 2013. TK-1403 has been closed and removed and is being replaced with one of FCC's existing tanks which has a capacity of 14,000 gallons.

D-2c(2) Description of New Tank System Installation and Testing Plans & Procedures

Prior to placing any new tank into hazardous waste service, FCC will have an independent, qualified professional engineer inspect the tank system and ancillary equipment to ensure that the structural and mechanical integrity of the system is sufficient for the intended service. At a minimum, the inspection will look for:

- weld breaks
- punctures
- scrapes on protective coatings
- cracks
- corrosion
- other structural or mechanical maladies.

Additionally, any new tank and/or new ancillary equipment will be tightness tested prior to being placed in service. In the event that the inspection or test reveals deficiencies in the tank system, appropriate measures will be taken to implement repairs. Documentation of the inspection and tightness test, including any deficiencies noted and corrective actions taken to correct the deficiencies, will be documented in the facility's operating record.

D-2d Containment and Detection of Releases

All hazardous waste storage tanks are located within impervious dikes or secondary containment basins to facilitate the early detection of leaks and contain the leak, should one occur. Each tank rests upon an elevated concrete base. The concrete base contains grooves to allow fluid from a leak in the bottom of the tank to migrate to the perimeter of the base, thus allowing detection of a release from the bottom of the tank within 24 hours.

D-2d(1) Plans and Description of Design, Construction, & Operation of the Secondary Containment System

D-2d(1)(a) Tank Age Determination

The age of each tank system is shown in Table D-1. All tank systems have the required secondary containment.

D-2d(1)(b) Requirements for Secondary Containment and Leak Detection

All tanks in hazardous waste service are provided with secondary containment which is designed, constructed, and operated to prevent any migration of waste out of the system by the use of a containment system constructed of reinforced concrete in a water tight configuration. In the case of the combined containment basin for tanks TK-1059 and -1060, an epoxy coating has been applied to the interior surface to enhance the impermeability of the concrete. The concrete secondary containment systems are compatible with the wastes stored, and have sufficient strength and thickness to prevent failure due to pressure gradients, physical contact with the waste, climactic conditions, and the stress of daily operation, including stresses from nearby vehicular traffic. Figures D-2 through D-4 provide design and construction information on the secondary containment structures. The secondary containment systems are constructed on a base providing support for the secondary containment, resistance to pressure gradients, and capable of preventing failure due to settlement, compression, or uplift.

Each secondary containment system is equipped with a sump and manually-operated sump pump. Through visual inspection, the presence of any release of hazardous waste or accumulated liquid can be detected within 24 hours, and plant operators will remove any accumulated liquids/waste within

24 hours of discovery. Acccumulated rainwater is sent too the plant effluent treatment system. If a release of hazardous waste is observed, the sump is pumped out and managed as hazardous waste.

D-2d(1)(c) Requirements for External Liner

The secondary containment systems utilized at FCC are external liners. The containment structures are free of any cracks or gaps and are designed and built to contain the volume of the largest tank plus the volume of rain that would be expected from the 25-year, 24-hour storm event (10.8"). Local topography and design of the containment structures prevent surface water run-on from collecting inside the containment. The secondary containment systems are designed and constructed to surround the tanks completely, and through the use of reinforced concrete for the liner and perimeter dikes, are capable of preventing lateral as well as vertical migration of the waste.

Containment capacities are summarized as follows:

Tanks TK-1057 and -1058:

Tank capacity, gal.	9,400
Rainfall @ 10.8", gal.	1,696
	11,096
Basin capacity, gal.	11, 317
Excess capacity, gal.	121

Tanks TK-1059 and -1060 (combined basin):

Capacity of largest tank, gal.	13,250
Rainfall @ 10.8", gal.	3,632
	16,882
Basin capacity, gal.	17,171
Excess capacity, gal.	289

Tank TK-1402:

Capacity of tank, gal.	14,130
Rainfall @ 10.8", gal.	6,225
	20,355
Basin capacity, gal.	28,790
Excess capacity, gal.	8,435

D-2d(1)(d) Secondary Containment and Leak Detection Requirements for Ancillary Equipment

All equipment associated with the hazardous waste storage tanks (pumps, lines, valves, etc.) are constructed of materials compatible with the waste (i.e., stainless steel, carbon steel, etc.) and is located above ground. Equipment that has a potential for leaks (pumps, valves, etc.) is primarily located within the secondary containment structures with the tanks. Transfer lines are located in the overhead pipe racks and are constructed with welded joints to prevent leaks. The ancillary piping is inspected for leaks on a daily basis.

D-2d(1)(e) Containment Buildings used as Secondary Containment for Tanks

Not applicable. Containment buildings are not utilized.

D-2d(2) Requirements for Tank Systems Until Secondary Containment is Implemented

Not applicable. Secondary containment is in place at all units.

D-2d(3) Variance from Secondary Containment Requirements

Not applicable. No variances are being requested.

D-2e Controls and Practices to Prevent Spills and Overflows

The hazardous waste streams stored in each tank system have been evaluated to insure compatibility with the material stored in the tanks and the materials of construction of the tanks and ancillary equipment. If any new waste streams are produced for storage in the hazardous waste storage tanks, they will be carefully evaluated to avoid any potential charactedristics that could cause any part of the tank system to rupture, leak, corrode, or otherwise fail.

The fill level on each tank is maintained at the 90% full level to provide adequate freeboard. Should the actual level of the tank exceed the 90% level, an alarm will sound to bring attention to the condition and the flow will be shut off automatically by use of automatic solenoid valves. Check valves are utilized to prevent backflow through the tank system piping connections.

The components of the overfill system are included in the routine inspections of the tank systems. These inspections include visual and manual checks of the overfill protection systems, and where equipped, electronic controls utilize computer monitoring systems to check for proper operation of the components of the system, i.e., testing of the automatic shutoff instrumentation in the event of high liquid level in a tank.

FCC inspects the secondary containment daily for the presence of hazardous waste and to insure that no waste is or has leaked from the secondary containment system. The above ground portions of the tank system are inspected daily to detect observable corrosion or release of hazardous waste. The daily inspection also includes the pressure relief devices and temperature monitors on each tank to ensure that the tank system is being operated in accordance with its design.

FCC maintenance procedures for the tanks include periodic internal and external inspections for evidence of corrosion, and metal thickness evaluations to insure that the tanks continue to be adequate for service.

TABLE D-1
TANK INFORMATION

	TANK ID				
ITEM	**TK-1057**	**TK-1058**	**TK-1059**	**TK-1060**	**TK-1402**
MATERIAL OF CONSTRUCTION	316 SS	A-36 CS	304L SS	316 SS	304 SS
DESIGN STANDARD	API 650	API 650	unknown	unknown	API 650
VOLUME, gal	9,400	9,400	5,800	13,250	14,130
DIMENSIONS, (dxh) ft	10 x 16	10 x 16	8 x 11	11 x 19	10 X 24
SPECIFIC GRAVITY	1.00-1.04	1.00-1.07	1.00-1.07	1.00-1.07	0.8-1.2
WASTE	K104	K083	K083	K083	D001, D018, D036, F003, F005
OPERATING PRESSURE	AMBIENT	AMBIENT	AMBIENT	AMBIENT	AMBIENT
NORMAL OPERATING TEMPERATURE , °F	140-165	>80	>80	>80	>80
SHELL THICKNESS, IN.	3/16	3/16	1/4	3/16	1/4
BOTTOM THICKNESS, IN.	1/4	1/4	3/16 (heads)	1/4	1/4
NITROGEN BLANKET, Y/N	y	y	y	y	y
CONSTRUCTION/ REPLACEMENT DATE, yr	1997	2013	1984	1984	1997

D-3 Waste Piles

not applicable

D-4 Surface Impoundment

not applicable

D-5 Incinerator Design

First Chemical's liquid injection incinerator is subject to the newly promulgated Hazardous Waste Combustor Maximum Achievable Control Technology (HWC MACT) standards of Title 40, Code of Regulations, Part 63, Subpart EEE, and must comply with the standards for existing facilities. In the course of responding to comments received from the regulatory agencies,and from meetings held with the MDEQ, it has been agreed that the Trial Burn Plan would be converted into a HWC MACT Comprehensive Performance Test Plan. The HWC MACT Comprehensive Performance Test has been successfully completed. The HWC MACT regulations are equivalent to or are more stringent than the RCRA incinerator regulations. Therefore, compliance with the HWC MACT standards also ensures compliance with the RCRA performance standards. In accordane with 270.19e and 264.340(b), the part B incinerator information requirements are limited, however, the following process description is provided, along with Figures D-5 through D-9 for details on the incineration process and equipment:

> The incineration unit chosen by First Chemical is a two stage, horizontal combustion, Noxidizer unit, custom engineered and manufactured by the John Zink Company of Tulsa, Oklahoma. It is specially designed to achieve a destruction and removal efficiency of at least 99.99% for each designated principal organic hazardous constituent and, in addition, to limit formation of nitrogen oxides from nitrogen containing components in the waste feed.
>
> The Noxidizer system is brought to its operating temperature by burning auxiliary fuel, methane, and a High Intensity burner. Once the permitted operating temperature is reached, the waste liquid streams, atomized with high pressure steam, are introduced. The waste streams are K083-Distillation Bottoms from Aniline Production, K104-Residue of Wastewater from the Production of Nitrobenzene and any other wastes allowable under FCC's permit.. The burner and the reduction furnace are maintained in a reducing state by a combustion controller which modulates the amount of combustion air to the burner. Some recycled flue gas is used to keep the burner temperature down. The burner is of the High Intensity type and takes a high pressure drop on the incoming combustion air stream. This creates considerable turbulence in the burner, which gives good mixing, which in turn results in a short and stable burner flame. The reducing atmosphere in the reduction furnace keeps the nitrogen in the waste from being oxidized to nitrogen oxide. An hourly rolling average temperature of 2250 degrees Fahrenheit (a range of 2245 to 2250 degrees Fahrenheit) and a residence time of about two seconds are achieved in the reduction furnace. Recycled flue gas is used to control the temperature in the furnace.
>
> The flue gases from the Reduction Furnace, which contain a combustibles (carbon monoxide and hydrogen) level of about 13 percent, are quenched by injecting recycled flue gas into the Quench section. The flue gases, going through a high velocity venture section (the quench bustle), mix with the cool recycled flue gas injected through multiple high velocity pipes, effectively reducing the flue gas temperature (a range of 2000 to 2100 degrees F).

The gases next pass through another venture section where reoxidation air is injected into the flue gas stream through a number of injection pipes. The incoming air oxidizes the combustibles in the flue gases raising the hourly rolling average temperature to 1750 degrees Fahrenheit (a range of 1740 to 1750 degrees Fahrenheit). A residence time of about one second is provided to complete conversion of carbon monoxide and hydrogen and any residual hydrocarbons.

The flue gases next go through a water tube boiler and an economizer producing 20,500 lb/hr of 300 psig steam, and are cooled to 500-600 degrees Fahrenheit. Some portion of the flue gases is recycled back to the combustion chambers with the rest being vented to the atmosphere through a stack with tip elevation 180 feet above ground level.

The incinerator will handle a normal range of 400-830 lb/hr of Stream 1 (K083 waste) and 400-830 lb/hr of Stream 2 (K104 waste) separately. The unit will handle a range of 300-863 lb/hr of each waste when fed concurrently. The system standards at a total waste feed rate of 1664 lb/hr. Under this condition, the total heat release is about 32 million Btu/hr., which includes about 0.3 million Btu/hr. as supplementary fuel from continuous pilot operation.

Natural gas will be used whenever the heat content of wastes and/or reduced feed rates are insufficient to maintain combustion at the specified operation temperatures. Auxiliary fuel will also maintain a continuous pilot flame to insure instantaneous reignition of wastes should the combustion flame be momentarily snuffed. Auxiliary fuel will also be burned during a startup to bring chambers up to a required operating temperature before waste feed is introduced.

Separate centrifugal blowers will deliver combustion air to each stage of the incinerator, and provide the pressure to transport products of combustion through the unit and stack.

The primary blower is sized to deliver 2600 scfm maximum and will be driven by a 30 hp. TEFC motor; the secondary (re-oxidation) blower is sized to delivery 2200 scfm maximum and will be driven by a 15 hp. TEFC motor. The flue gas recycle blower is sized to deliver 7300 scfm maximum and will be driven by a 75 hp TEFC motor.

A range of waste feed rates will be established consistent with operational characteristics of the incinerator and fluctuations in heat content and inventory of waste material. Combustion temperatures are controlled principally by regulation of quench gas and fuel gas rates. Other factors related to safe operation and performance standards are presence of flame, availability of combustion air, stack gas velocity, and carbon monoxide and oxygen levels in the stack gas.

The baghouse modules are located at the exit of the incinerator. It is designed to filter particulates from the flue gas prior to discharge to the atmosphere. The particle size distribution is around 0.5 microns with almost all particles less than 1 micron.

The capacity of the bag filters is designed for 14000 ACFM at 350 F. The modules will operate in the parallel with the valving capability to isolate the modules.

The filter bags are an Aramid felt with a Teflon membrane designed to remove particulates. The maximum operating temperature of the baghouse is 372 F, therefore, a system has been provided to cool the flue gas that varies in the range of 350 F to 600 F before it enters the bag filter. A dilution air damper will cool the flue gas to the desired operating temperature of 350 - 372 F. Dilution air flow is controlled automatically on the temperature control with a dilution air damper to achieve the desired temperature at the filter housing inlet.

An induced draft fan is provided to maintain a constant pressure at the exit of the incinerator and maintain system stability as pressure drop increases across the bag filters. The draft fan is driven with a variable speed drive motor that will automatically maintain a set pressure on the incinerator outlet.

The modules are designed to be cleaned on line with a pulse jet of compressed air on the clean side of the bags. The compression shock wave expands the bags dislodging particulate build-up on the outside of the bags. The solids are removed from the modules via a rotary airlock to a container.

D-6 Landfills

Former Pond #3 is undergoing post-closure with groundwater corrective action. Due to the residual groundwater contamination, the surface impoundment was closed as a landfill. Refer to Section E for additional information.

D-7 Land Treatment

not applicable

D-8 Miscellaneous Units

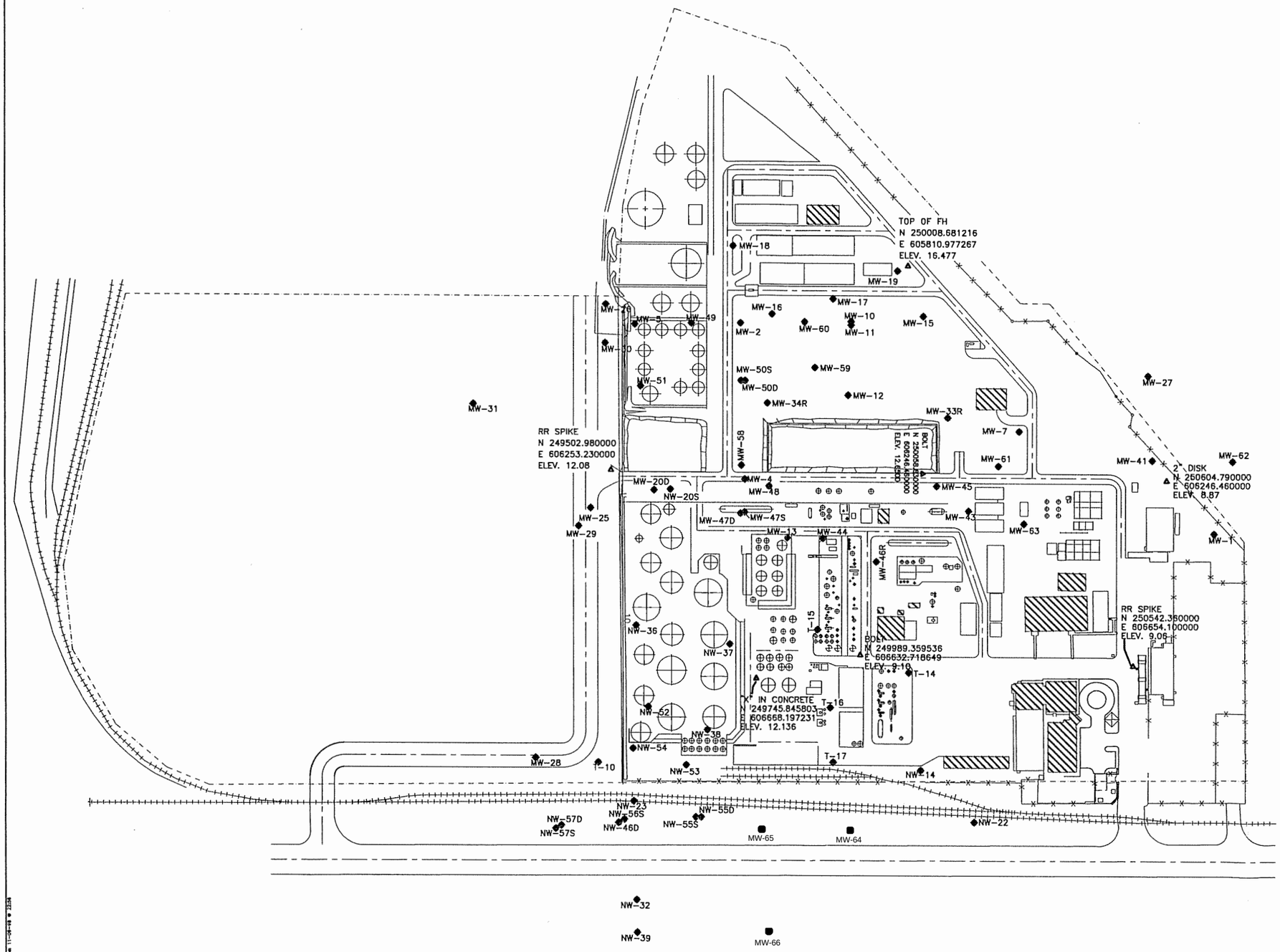
not applicable

D-9 Boilers and Industrial Furnaces

not applicable

ATTACHMENT IV.1.

MONITORING WELL LOCATION



WELL #	NORTH*	EAST*	ELEV. (MLW)
MW-1	250702.8371	606368.7597	10.97
MW-2	249736.7746	605955.6168	14.05
MW-4	249747.5057	606270.2297	13.97
MW-5	249496.4673	605939.6490	15.63
NW-7	250366.9829	606090.8953	14.76
NW-10	249947.0305	605939.1805	13.84
NW-11	249948.2955	605947.0608	13.9
NW-12	249963.4934	606097.8252	16.2
NW-13	249864.0630	606396.4832	9.74
NW-14	250083.2380	606881.0759	9.09
NW-15	250138.1706	605954.2703	14.02
NW-16	249813.3332	605940.7474	14.19
NW-17	249936.3757	605882.5558	12.4
NW-18	249713.0200	605794.6100	12.99
NW-19	250075.6423	605830.3305	15.23
NW-20D	249561.8839	606291.7371	10.29
NW-20S	249579.7328	606288.4294	9.36
NW-22	250172.9381	606968.7314	7.88
NW-23	249527.9300	606974.2100	6.75
NW-25	249434.4400	606301.7100	14.35
NW-26	249450.1886	605948.1844	13.11
NW-27	250506.6644	606086.5873	12.56
NW-28	249290.7000	606885.3000	12.81
NW-29	249409.9375	606302.9955	13.2
NW-30	249415.8662	605993.4096	12.75
NW-31	249223.8500	605263.2300	11.34
NW-32	249541.8415	607089.6655	6.77
NW-33R	250155.1200	606150.0402	15.4
NW-34R	249804.7369	606146.9975	14.26
NW-36	249510.5376	606589.9760	10.09
NW-37	249727.9531	606620.3787	11.89
NW-38	249671.1754	606802.1365	12.12
NW-39	249540.5504	607120.3258	6.93
NW-41	250601.9894	606221.8847	8.6
NW-42	250294.5830	606003.3856	15.48
NW-43	250220.3352	606319.5907	10.09
NW-44	249920.0846	606402.0760	8.98
NW-45	250141.3030	606280.5494	9.75
NW-46R	250038.9129	606454.7735	8.69
NW-47D	249750.9666	606336.8796	10.08
NW-47S	249759.5764	606335.9681	9.22
NW-48	249810.2049	606282.2636	9.69
NW-49	249624.9150	605947.8409	14.23
NW-50D	249729.2705	606070.7650	14.29
NW-50S	249735.2700	606071.0910	14.04
NW-51	249519.7658	606093.7217	12.32
NW-52	249538.1947	606765.7287	9.82
NW-53	249617.1712	606893.9847	7.81
NW-54	249507.2379	606859.4887	9.35
NW-55D	249663.0872	607000.7613	6.4
NW-55S	249657.6875	607001.1088	6.22
NW-560	249501.0592	607000.2651	6.69
NW-56S	249505.7035	606999.0581	6.48
NW-57D	249362.6968	607001.5472	5.97
NW-57S	249357.5838	607001.3847	6.22
NW-58	249742.2540	606229.5639	14.71
NW-59	249875.1829	606038.3744	15.94
NW-60	249870.0007	605941.2462	14.05
NW-61	250309.1284	606222.3453	14.47
NW-62	250705.5510	606256.5094	14.37
NW-63	250352.8363	606355.7533	10.44
T-10	249419.2878	606870.7289	13.06
T-14	250094.2249	606674.7477	12.08
T-15	249901.4480	606588.6062	9.89
T-16	249929.6121	606757.8704	10.95
T-17	249943.7477	606871.6034	10.04
TOP OF SHEETPILE WALL	249540.6869	607118.5861	5.25

REV	DESCRIPTION	BY	CHK	APPD	DATE

First Chemical Corporation
A ChemFirst Company
Pascagoula Mississippi

ENVIRONMENTAL
GROUNDWATER MONITORING WELLS
PART B PERMIT

Figure E-2

DESIGNED	DATE		
DRAWN GCP	DATE 11/24/98		
CHECKED	DATE		
APPROVED	DATE	JOB No.	DRAWING No. 10008022 REV 0
APPROVED	DATE	SCALE 1" = 100'	

ATTACHMENT IV.2.

CORRECTIVE ACTION PLAN

Corrective Action Plan

This document describes the purpose and design for the Groundwater Recovery Trench (GRT) implemented corrective measure at the First Chemical Corporation (FCC) facility (Site) located in Pascagoula, Jackson County, Mississippi. The GRT was installed along the eastern FCC property boundary in November 2006 and first began operation in March 2007. The goal of operating the GRT is to contain affected groundwater at the site perimeter while capturing and recovering affected groundwater that has migrated off-site.

The corrective action objective is to prevent offsite migration of, and unacceptable exposure to, groundwater containing actionable concentrations of site-related constituents of concern (COCs). The strategy is to contain existing on-site affected groundwater, mitigate potential on-going releases, and implement Institutional Controls to prevent unacceptable human health exposure to the affected groundwater.

1.0 BACKGROUND

Groundwater assessment at the Site began with the installation of groundwater monitoring wells in mid-1982 around a former wastewater treatment pond (Pond 3) that had released COCs to the environment. Additional assessment of site media (soil, groundwater, sediment, surface water, air) occurred in 1985 and was documented in the "Remedial Investigation Report" (Golder and Associates, June 1987). The initial regulatory requirement for corrective action was detailed in the Site's initial Resource Conservation and Recovery Act (RCRA) Hazardous Waste Management Permit, issued by the Mississippi Department of Environmental Quality (MDEQ) in 1989. The Permit described a groundwater corrective measure implemented in 1986 that consisted of vacuum-extraction well-points installed around Pond 3. The system, named the Source Isolation System (SIS) #1, recovered affected groundwater that was pumped to the Site's wastewater treatment plant for treatment and discharge to the Mississippi Gulf Coast Regional Wastewater Authority pursuant to a MDEQ pre-treatment permit. A second system of vacuum-extraction well-points, SIS #2, was added in 2002 to address affected groundwater in the vicinity of a COC release to groundwater at the southeast tank farm.

These two corrective action systems continued operation until August 2005, when Hurricane Katrina damaged the associated piping and instrumentation. At that time, FCC decided to evaluate alternative groundwater recovery systems due to maintenance issues related to inorganic precipitation and poor vacuum recovery of the SIS's.

Completion in 2005 of the EPA Corrective Action 750 Environmental Indicator (migration of groundwater under control) documented that site-related COCs are present in groundwater and that the affected groundwater has been delineated on a sitewide basis. Migration from the site perimeter to a ditch along Highway 611 was noted in the CA 750 evaluation, and the groundwater discharge to surface water was determined to be acceptable.

2.0 REMEDY SELECTION

This section reviews the justification for selecting the GRT to meet the corrective action objective stated above. The GRT was determined, through review of the hydrogeology

and computer modeling, to be a more efficient and dependable groundwater extraction system than the previous SIS systems.

2.1 Hydrogeologic Background and Groundwater Modeling

The near surface hydrogeologic system consists of two distinct fine-grained water-bearing formations: the Upper Sand and the Lower Sand-Silt. These units are separated by a 5 to 10-foot thick clay aquitard encountered approximately 12 to 15 feet below grade. Recharge to the subsurface is from rainfall, and discharge is to local surface water features, such as the Highway 611 Ditch (located immediately east of the Site on the opposite side of Highway 611). Site-related COCs have only been detected in the Upper Sand, which extends to a depth between 12 and 15 feet. The Upper Sand consists of fine-grained sand to sandy silt. Groundwater is typically first encountered within five feet of ground surface and the aquifer is presumed to be unconfined because there is no surface confining clay.

Because the Upper Sand is very fine grained, thin (less than ten feet of saturated thickness) and the groundwater is under unconfined conditions, the GRT was chosen as the remedy that would best achieve the corrective action objective because it would be able to intercept the entire aquifer thickness over an extended length. In general, a GRT consists of perforated piping at the bottom of a trench backfilled with permeable media. When groundwater is removed from a sump connected to the piping, groundwater flow is induced toward the collection piping that results in a relatively even drawdown in the water table that extends the length of the trench. Under steady-state conditions (i.e., conditions achieved after a period of time when flow conditions and hydraulic heads have stabilized), the GRT capture zone will extend off-site, reversing the groundwater hydraulic gradient, thereby capturing and recovering off-site affected groundwater.

The location of the GRT along the eastern hydraulically downgradient property boundary was selected after groundwater modeling was performed that indicated the property boundary trench alignment would best meet the corrective action objective. The model assumed that Pond 3 was backfilled and closed, and no longer contributed water to the aquifer through infiltration. The GRT was modeled as a drain located at the bottom of the Upper Sand, and the model indicated a recovery rate of 2.0 gallons per minute (GPM) at steady-state conditions. The attached figure shows the computer model generated output, showing the zone of groundwater capture is larger than the area of affected groundwater.

3.0 GROUNDWATER RECOVERY AND TREATMENT OPERATIONS

The GRT design was originally summarized in Attachment IV.2 of the 2006-revised Permit. The trench was to be placed just inside the FCC eastern property boundary between two rail spurs. The design called for placement of a collection pipe in a granular backfill near the base of a trench that extended through the Upper Sand and “keyed” into the top of the underlying clay aquitard (approximately 12 to 15 feet below grade). A compacted clay layer was to be placed near the ground surface to limit direct surface water infiltration into the trench. Recovered groundwater was to be pumped to the existing site wastewater treatment system.

3.1 Trench Construction

The GRT was constructed using the DeWind one-pass trenching technology. The specialty trenching unit (trencher) excavates, places backfill, and installs the collection pipe in a single pass.

Excavation started at the southern end of the trench alignment and proceeded northward. The width of the excavation was approximately 1.5 feet. A 6-inch HDPE groundwater collection pipe with a 0.010-inch slotted screen section was installed approximately 18 inches off the bottom of the trench.

A design-specified silty-sand was used to backfill the excavation to the ground surface. The trench depth was monitored throughout construction to assure proper keying into the underlying clay. Backfill settlement was monitored visually at the surface and additional backfill was added as necessary.

Two installation deviations from design occurred due to site conditions:

1. Excessive sloughing of surrounding soil was observed during initial entry of trenching equipment. Sloughing occurred because the near surface soil lacked cohesion. An adjustment was made by entering the ground at a steeper angle of entry to limit sloughing and potential damage to the nearby rail. This change did not affect pipe integrity or the pipe screen, but limited the depth to which a submersible pump could be inserted into the pipe.
2. The trench termination point was approximately 75 feet shorter than originally designed because the trencher access was limited at the north end by surface feature obstructions. Prior to allowing for this change, a computer model simulation confirmed that the shorter trench would still be expected to capture the northernmost limits of affected groundwater.

Once the trenching operations were complete, two feet of the backfill for the excavation were removed and replaced with compacted clayey soil which was then covered with gravel. The clay layer was placed to limit direct surface water infiltration into the GRT. Excavated soil was screened and tested, and was either used as backfill during closure of Pond 3 (if non-hazardous), or was properly disposed of as hazardous waste.

Initially, an electric submersible pump was placed within the collection pipe to a depth of approximately 6 feet below grade. However, due to the steeper angle of the pipe, the submersible pump could not be located deep enough in the pipe to produce full dewatering of the GRT. The submersible pump, therefore, was replaced with an above-ground centrifugal pump in November 2007. Level switches are installed in the trench that maintain groundwater drawdown near the bottom of the trench. Piping connects the pump to above-grade conveyance piping and recovered groundwater is conveyed through piping to the existing on-site wastewater treatment plant. A total of 1,600 feet of 1.5-inch diameter stainless steel pipe was installed from the southern end of the GRT, along existing pipe racks, to an existing plant sump tank. Clean out ports are positioned along the GRT alignment, as are necessary valves and sample points.

Electrical and control systems were installed to power the pump and monitor/control operation. Controls include a pump control panel, pressure transducers, and a flow meter. The control equipment is integrated into Site controls and monitoring systems, allowing for electronic data collection and remote observation/control.

3.2 Maintenance

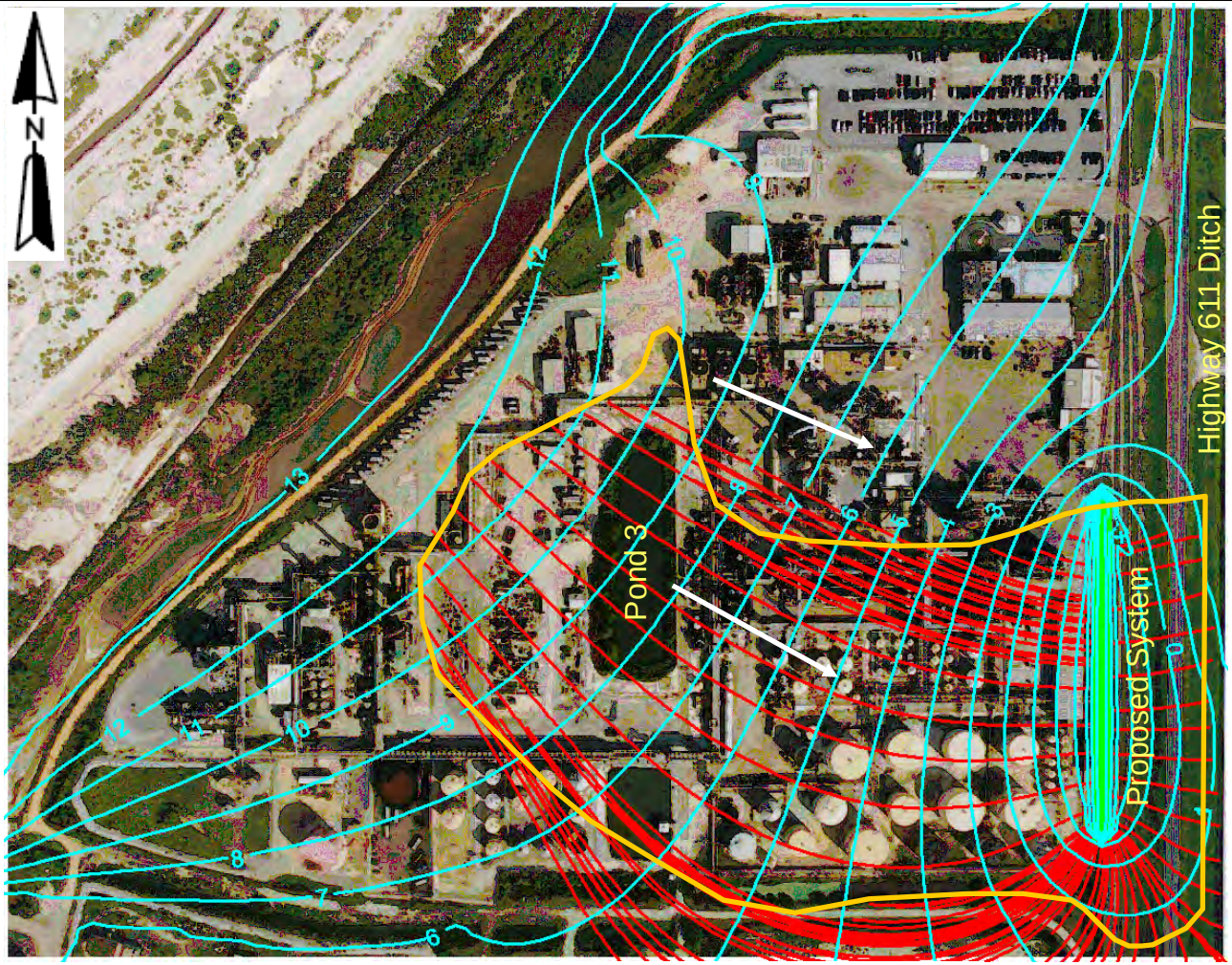
Maintenance issues associated with GRT can result in reduction of flow or system shutdown. Reduction of flow can occur due to siltation, inorganic mineral precipitation or biological growth that can lead to plugging of the filter pack or collection pipe. Clean out ports allow for flushing of the collection pipe to remove siltation or addition of chemical treatment if mineral precipitation or biological fouling occurs. System shutdown can be caused by pump failure, power outages, or a deliberate shut down for routine preventative maintenance. All maintenance issues will be reported in the routine reports.

4.0 MONITORING AND REPORTING PROGRAM

The specifics of the groundwater monitoring program, such as the wells to be sampled and the frequency of sampling, are specified in the Permit. The "Groundwater Compliance Monitoring Sampling and Analysis Plan" (dated August 2013), which is included as an attachment to the Permit, outlines the sampling protocol to be used at the Site. The sampling plan includes figures showing the locations of all monitoring wells, and tables which list available construction data for the monitoring wells, the purpose of the well (e.g., compliance, effectiveness, boundary control), and sampling frequency for COCs.

Groundwater monitoring and reporting occurs twice a year and is designed to monitor potential changes in COC concentrations, determine the location of affected groundwater, assess groundwater flow rates and direction, and evaluate the effectiveness of the corrective action (i.e., the GRT). Groundwater monitoring wells are also located off-site so that capture and recovery of off-site affected groundwater can be evaluated. Surface water samples are collected from the Highway 611 ditch to confirm that there are no unacceptable concentrations of site-related COCs discharging to the ditch.

Data collected during GRT operation includes hydraulic head in the trench, instantaneous recovery rate, and volume recovered. This data is recorded at a frequency (typically once per minute) that allows the operational effectiveness of the GRT to be determined (i.e., up-time versus down-time, recovery rate).



Scale in Feet

0 500 1000

Notes

1. Pale blue lines are lines of equal hydraulic head.
2. Contour interval is 1 foot.
3. Elevations are referenced to feet mean low water (which equals negative 0.72 feet mean sea level)
4. Bright green line is location of recovery trench pumping at two gallons per minute (steady-state).
5. White arrows show groundwater flow direction.
6. Orange line shows approximate limit of nitrobenzene in Upper Sand (largest plume).
7. Red lines are pathlines showing groundwater flow direction assuming trench operation is continuous. Red lines indicate capture zone is larger than plume boundary; therefore, plume is captured.

PARSONS

Parsons – Environment & Infrastructure
2200 West Loop South, Suite 200
Houston, Texas 77027

TITLE:
Upper Sand Groundwater Capture with Operating Recovery Trench
Computer Model Projection
First Chemical Corp., Pascagoula, MS

DWN: RLL	DES.:	Project No.: **507622**
CHKD: RLL	APPD: RLL	
DATE: 08/23/13	REV.:	FIGURE NO.: **1**

ATTACHMENT IV.3.

SAMPLING AND ANALYSIS PLAN

PARSONS

GROUNDWATER COMPLIANCE MONITORING SAMPLING AND ANALYSIS PLAN

FIRST CHEMICAL CORPORATION
PASCAGOULA, MISSISSIPPI
STATE/EPA ID NO. MSD033417031

Prepared for:

First Chemical Corporation
1001 Industrial Road
Pascagoula, Mississippi 39581

Prepared by:

PARSONS
2200 West Loop South, Suite 200
Houston, Texas 77027

Date: September 15, 2003 (URS Corporation)
Revision 1: April 2006 (URS Corporation)
Revision 2: August 2013

Parsons PN 447745

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PROFESSIONAL SIGNATURES AND SEALS

Registered Professional Geologist

Registered Professional Geologist	License number	Expiration date
Robert L. Liddle	0083	12-31-13

Signature

Date 8/14/2013

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DOCUMENT: Groundwater Compliance Monitoring Sampling and Analysis Plan, First Chemical Corporation, Pascagoula, Mississippi

Seals, as applicable:

CERTIFICATION:

This report presents sampling and analysis plan for groundwater corrective action at the First Chemical Corporation facility located in Pascagoula, Mississippi (EPA ID MSD 033417031). This Revision No. 2 to the sampling and analysis plan supersedes Revision No. 1 to the Compliance Monitoring Sampling and Analysis Plan dated April 2006. This plan fulfills the requirements of Module IV.H of Mississippi Hazardous Waste Management Permit No. MSD033417031 (scheduled for renewal February 28, 2014). This plan has been prepared in accordance with current standards of professional practice; no other warranty is expressed or implied.

L. Webb Jackson
Project Manager

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APPENDICES

1.0 INTRODUCTION

This document outlines the sampling protocol to be used by First Chemical Corporation (FCC) for the sampling of its compliance program monitoring wells at the Pascagoula, Mississippi site. These procedures have been developed by adapting the recommended procedures found in the United States Environmental Protection Agency (EPA) documents, RCRA Groundwater Monitoring: Technical Guidance Document (EPA 1992), the Science and Ecosystem Support Division, Field Branches Quality System and Technical Procedures (EPA 2013), and Groundwater Sampling Guidelines for Superfund and RCRA Project Managers (EPA 2002) to site specific issues related to the FCC Pascagoula site.

This document provides guidance for FCC's groundwater monitoring program to be performed in compliance with the requirements of FCC's Mississippi Hazardous Waste Management Permit No. MSD 033 417 031 (Permit), renewed in 2014.

The specifics of the monitoring program, such as the wells to be sampled and the frequency of sampling, are specified in the Permit under Module IV. Figure 1 is a site map of the facility while Figures 2 and 3 show locations for all site-monitoring wells. Table 1 lists all available construction data for site monitoring wells.

Tables 2 and 3 summarize the Permit-required monitoring program that will be followed. Table 2 lists the wells and divides them into "Compliance", "Corrective Action Effectiveness", and "Boundary Control" monitoring wells as specified in the Permit.

Sampling frequency is listed for the three-parameter lists specified in the Permit. Table 3 displays the full list of "groundwater protection parameters" specified in the Permit. Constituents that are underlined and in bold on Table 3 are analyzed on a semi-annual basis for all monitoring wells on Table 1. The remaining constituents are analyzed on a biennial basis for the "Boundary Control" wells. Two wells (MW-20S and MW-55S) are sampled biennially on alternate years for Appendix IX parameters as noted on Table 2.

1.1 Hydrogeology and the Monitoring Well Network

The near surface hydrogeologic system at Pascagoula consists of three distinct fine-grained transmissive formations: the Upper Sand, the Lower Sand/Silt, and the Deep Sand. These units are separated by two clay aquitards: the Upper Clay and the Lower Clay. Recharge to these units is from rainfall and discharge is likely to local surface water features such as the numerous ditches and bayous surrounding the site. The Pascagoula site constituents of potential concern (COPCs) have been detected in the Upper Sand, but no COPCs have been detected in the two lower transmissive zones.

The Upper Sand is 12 – 20 feet thick and extends from the ground surface down to the top of the Upper Clay. It is an unconfined aquifer with low hydraulic conductivity. Site groundwater contaminant plumes are found in this unit and the majority of monitoring wells are completed in this unit. Locations of wells completed in the Upper Sand are shown in Figure 2.

The Lower Sand/Silt is 25 – 35 feet thick, exhibits greater variability in grain size, and is hydraulically confined. Groundwater elevations in this unit are higher than those in the Upper Sand, and in some cases, higher than ground surface. This indicates that an upward vertical gradient exists between the Lower Sand/Silt and the Upper Sand. No groundwater contaminants have been detected in the lower sand/silt indicating that the

Upper Clay and the vertical upward gradient serve as effective barriers to downward migration of contaminants from the Upper Sand. Wells monitoring the Lower Sand/Silt are shown in Figure 3.

1.2 Potentiometric Surface Monitoring

Groundwater elevation data will be collected to meet the following objectives:

1. Gather sufficient data to prepare semi-annual potentiometric surface maps for each monitored zone;
2. Support assessment of groundwater flow rate and direction;
3. Collect data needed to support current and future remedial system evaluation efforts.

Groundwater elevation data will be measured on a semi-annual basis. The groundwater potentiometric surface data collection procedures are outlined in Section 2.4. Wells to be monitored are listed on the Site-Wide Groundwater Elevations form in Appendix A.

1.3 Groundwater Monitoring

Groundwater monitoring will occur twice a year (ideally during the first and third quarters) and will include the wells specified in Permit Condition IV. Procedures for well purging and sampling are detailed in Section 2.0, while analytical methods and detection limits are discussed in Section 3.0.

All sampling activities should proceed from the least contaminated wells to the most contaminated wells. Prior to purging and sampling at a well, observations should be made as to the condition of the well (additional detail in Section 2.3) and recorded on the Groundwater Sampling Sheet (see Appendix A).

Purging and sampling procedures are discussed in Section 2.6 for two different methods of sample collection: low-flow purging and conventional three-well-volume purge techniques. Low-flow purging is the default method for sample collection, with conventional purge as a backup methodology.

The sampling program outlined in the Permit and this document shall be carried out in a safe manner as detailed in the current Health and Safety Plan (HASP) for the Monitoring and Reporting Program (Parsons 2013). This HASP is current as of January 2013 and will be reviewed and updated periodically to reflect changes in procedures or additional knowledge about specific constituents that may be gained during future investigation activities.

2.0 SAMPLE COLLECTION PROCEDURES

This section provides a general overview of the step-by-step procedures for given activities with the specific details contained in the guidelines in Appendix B. Field forms for the various activities are contained in Appendix A.

2.1 Health and Safety

Health and safety procedures are specified in the HASP. The current HASP is entitled Health and Safety Program for the Monitoring and Reporting Program and is dated January 2013. This HASP is to be reviewed by all field personnel participating in the sampling effort. The HASP will be updated as warranted to reflect changed conditions at the site.

2.2 Sample Responsibilities

Samplers must calibrate instruments used during field activities and follow the guidelines in Appendix B while performing field activities. Guidelines for calibrating instruments are contained in Guideline B-6 (Use of Water Quality Meter), Guideline B-7 (Use Water Level Meter), and Guideline B-8 (Use of Photoionization Detector).

2.3 Wellhead Inspection

Each well will be inspected and its condition noted on a Groundwater Sampling Sheet contained in Appendix A. Items that will be inspected include:

- Total well depth
- Presence of a datum mark at each well
- Well locked and if the lock is in working condition
- Condition of outer protective casing
- Condition of visible well casing
- Clarity of well label
- Missing caps or plugs
- Presence of water between protective casing and well
- Water ponding around the well
- Condition of cement pad
- Any needed repairs

2.4 Groundwater Level Measurement

Site-wide groundwater levels will be measured prior to sampling. Sufficient time will be allowed for the water level to stabilize after the well cap is removed. Measurements should be taken from the reference point on the top of the well casing (usually a mark on the north side of the casing) to an accuracy of 0.01 feet (refer to Guideline B-7 in Appendix B). The condition of the well should be noted in the field logbook as well as the time the depth was recorded. The specific procedures to be followed are in Guideline B-7. Depth to water and the date and time will be recorded on the water level measurement data sheet included in Appendix A or in the field logbook.

The water level meter should be decontaminated between each well. Field personnel should make every effort to ensure that only the tip encounters the water in the well and ensure that the tape does not contact the walls of the well. As the probe is withdrawn from the well, it should be wiped down with a moist paper towel. After removal from the well, the water level meter and tape should be washed and rinsed as detailed in the decontamination procedures in Section 2.9 and Guideline B-9 (Sampling Equipment Decontaminating).

2.5 Total Well Depth Measurement

Total depth in each well at the site should be measured annually. Total depth will be determined by lowering a water level meter or weighted measuring tape to the bottom of the well and measuring the distance from the marked measuring point to the total depth of the well. If possible, field personnel should note if a “hard” bottom or “soft” bottom is encountered, with a soft bottom potentially indicating sediment accumulation in the well. The measuring tape or water level probe should be decontaminated between wells, using the method outlined in Guideline B-9 in Appendix B. Total well depth should be recorded in the field logbook.

2.6 Purging

Conventional and low-flow purging methods can be used in collecting groundwater samples at the site. Low-flow purging is the desired method and is to be the default method at each well. It is desirable that the same method be used at the same well over time, but if there are mitigating circumstances, conventional purge methods may be utilized in the manner specified in this section.

2.6.1 Low-Flow Technique

Guideline B-2 (Appendix B) details the low-flow purging technique. The following is a brief summary of the details in the guideline. Using the low flow technique with a peristaltic pump, attach sufficient polyethylene tubing to the pump and lower to a midscreen level. The recommended position for the intake is at the mid-point of the screen. Connect the pump discharge to the flow through cell of the water quality meter. Begin purging the well. Wells should be purged at or below their recovery rate, ideally 0.2 to 0.5 liter per minute. Maintain a steady flow rate while maintaining a drawdown of less than 0.33 feet. Measure depth to water at 3 to 5 minute intervals during purging. If drawdown is greater than 0.33 feet, lower the flow rate (0.33 feet is a goal to help guide with the flow rate adjustment). If the water draws down to the top of the screened interval, turn the pump off and allow for recovery.

Monitor and record the water quality indicator parameters (pH, specific conductance, and temperature) every three to five minutes as specified in Guideline B-6 Use of Water Quality Meter. Record these values in the Groundwater Sampling Sheet.

Continue purging the well until the measured parameters stabilize (see Guidelines B-1 and B-2 for stabilization criteria). Once the criteria have been successfully met, indicating that the water quality indicator parameters have stabilized, then sample collection can take place. If stabilization is not occurring and the procedure has been strictly followed, then sample collection can take place after 15 minutes. The specific information on what took place during purging must be recorded in the field logbook and on the Groundwater Sampling Sheet.

Disconnect the pump's tubing from the flow-through cell so that the samples are collected from the pump's discharge tubing. Collect samples following Guideline B-3, Groundwater Sample Withdrawal (in Appendix B).

Maintain the same discharge rate or reduce slightly for sampling in order to minimize disturbance of the water column. The pump rate during sampling should produce a smooth, constant (laminar) flow, and should not produce turbulence during the filling of bottles.

Before locking the monitoring well, measure and record the depth-to-water and record it on the Groundwater Sampling Sheet.

2.6.2 Conventional Technique

Purging may also be accomplished by evacuating three casing volumes before sampling as described in the most recent revisions of the RCRA Groundwater Monitoring: Draft Technical Guidance (EPA 1992) (see Guideline B-1 in Appendix B).

Prior to insertion of pump, measure the depth to water. Record information on depth to groundwater in the field logbook and/or on the Groundwater Sampling Sheet. Measure the depth to water a second time to confirm initial measurement; measurement should agree within 0.01 feet or re-measure. Take a total depth reading, if required, and record information on depth to groundwater on the Groundwater Sampling Sheet. Reel the water level tape to just above the water level reading and leave the water level indicator probe in the monitoring well.

Use the depth to water and the total depth of the monitoring well to calculate the volume of water in the well (i.e., one casing volume) using the formula on the Groundwater Sampling Sheet and record the information on the Groundwater Sampling Sheet.

Attach polyethylene tubing to the submersible pump and lower the pump and tubing into the monitoring well until the location of the pump intake is set at approximately two feet above the top of the screen. Record pump placement on the Groundwater Sampling Sheet.

Connect the discharge line from the submersible pump to the water quality meter flow-through cell. The discharge line from the flow-through cell must be directed to a container to contain the purge water during the purging and sampling of the monitoring well.

Begin purging the well. The well-purging rate should not be great enough to produce excessive turbulence in the well and/or a drawdown of greater than five feet, normally two to four gallons per minute. For wells that can be pumped to dryness with the sampling equipment being used, the well should be evacuated to just above the well screen interval and allowed to recover prior to sample withdrawal.

Note: It is important not to completely de-water the zone being sampled, as this may allow air into the zone, which could result in negative bias in organic and metal constituents. If the water level is lowered to the pump level before three volumes have been removed, the water level should be allowed to recover for 15 minutes, and then pumping can begin at a lower flow rate. If the pump again lowers the water level to below the pump intake, the pump should be turned off and the water level allowed to recover for a longer period of time. This will continue until a minimum of three well volumes are removed prior to taking the groundwater sample.

Periodically check the water level and record it on the Groundwater Sampling Sheet (Appendix A). Water levels should be monitored frequently during purging to help determine an appropriate purging rate. Record water levels after every ½ well volume.

Monitor and record the water quality indicator parameters (pH, specific conductance, and temperature) after every ½ well volume following guidelines outlined in Use of Water Quality Meter (Guideline B-6). Record these values on the Groundwater Sampling Sheet. Continue purging the well until three well volumes have been removed and record a final set of water-quality-indicator parameters, including depth to water.

Disconnect the pump's tubing from the flow-through cell so that the samples are collected from the pump's discharge tubing. Collect samples following the Groundwater Sample Withdrawal (Guideline B-3).

Reduce the pumping rate for sampling (0.2 to 0.5 liter per minute) in order to minimize disturbance of the water column. The pump rate during sampling should produce a smooth, constant (laminar) flow, and should not produce turbulence during the filling of bottles. The pump should be decontaminated between sampling locations and at the end of the day (Guideline B-9).

2.7 Field Measurements

Measurements of pH, conductivity, and temperature at each well should be electronically measured in the field during purging and recorded on the Groundwater Sampling Sheet contained in Appendix A. Field procedures for instrument use, calibration, and quality control in determining the parameters of pH, specific conductance, and temperature should be according to the equipment manufacturer's specifications (refer to Guideline B-6 in Appendix B). These data will be input into an electronic database, and hard copies will be placed in the project files.

2.8 Collecting Groundwater Samples

Guideline B-3 contains detailed guidance on collecting groundwater samples, while a summary is given below. In a given day, groundwater sampling should progress from the wells expected (or known) to contain the least contamination to the wells containing the most contamination. This will minimize the possibility of cross-contamination from inadequate decontamination. If samples are collected using dedicated or disposable equipment, then no particular order would have to be followed.

Samples collected for volatile organic analytes (VOA) will consist of at least two 40 milliliter (ml) preserved vials that will be filled completely such that no head space (bubbles or air pocket) is present. Samples collected for all other analyses including metals and inorganic constituents will be filled to ninety percent. Groundwater samples at each well will be collected in order of decreasing volatility (VOCs, semi-volatile organic analytes [SVOCs], and then inorganics). All groundwater samples for inorganics analysis are field filtered and should be collected last.

After filling, the bottles should be immediately sealed and stored on wet ice in the designated shuttle for transport to the laboratory. Collection time and volume of the sample should be recorded on the Chain of Custody (COC) Form, which should be supplied by the analytical laboratory.

2.9 Decontamination

When dedicated purging and/or sampling equipment is not used or the dedicated equipment is stored outside the well, the equipment should be decontaminated by following Guideline B-9, Sampling Equipment Decontamination (see Appendix B). The Guideline states that decontamination should follow a 3-step process:

- Wash with non-phosphate detergent
- Rinse twice with deionized or distilled water
- Allow equipment to air dry

Oily or hard to remove materials should be removed with a solvent such as isopropanol or methanol and allowed to air dry before decontaminating. When site-wide water levels are being taken, the portion of the water level meter probe that came into contact with contaminated groundwater should be sprayed down with distilled water between each well and then fully decontaminated at the end of each day. Any water used during decontamination should be contained and disposed of in a manner specified by facility personnel.

Specific equipment requiring decontamination at the site include:

- Submersible pump (decontaminate between each well)
- Flow-through cell (decontaminate between each well)
- Weight for end of polyethylene tubing if not using dedicated tubing (decontaminate between each use)

The peristaltic pump and disposable tubing do not require decontamination.

2.10 Field Quality Control Samples

Field quality control samples will be collected to assess the quality of the sampling and analysis effort. These samples include duplicates, equipment blanks, trip blanks, and matrix spike/matrix spike duplicate samples. The rationale for these samples and additional information is given in Section 3.2.

2.11 Sample Handling and Shipping

Sample handling, packing, and shipping guidelines are contained in Guideline B-4 in Appendix B. The text in this section is an abbreviated overview of Guideline B-4.

- Prior to packing for shipping, the sample shuttle should be lined with bubble wrap and a large plastic bag.
- After taking samples in accordance with Groundwater Sample Withdrawal (see Guideline B-3 in Appendix B), place the sample containers in shipping foam or in bubble wrap and then in zip-lock bags. Ensure the sample container labels have dates, times, and initials of sample collector following Guideline B-3 in Appendix B.
- Tape closed the opening of the plastic bag containing the samples so that melted ice will not leak into the bag.

- Obtain a Chain of Custody (COC) form and fill out all appropriate areas following Guideline B-5, Guideline for Completing Chain of Custody Forms in Appendix B. Retain one copy of the completed COC form and place the other two copies in a waterproof bag and place the bag inside the shuttle with the samples going to the laboratory
- Close the lid of the shuttle and secure it with strapping tape
- Place a custody seal, with all appropriate areas filled out on the opening side(s) of the shuttle and secure with clear tape
- Notify the appropriate analytical laboratory that samples are being sent to their laboratory mailing address

2.12 Shuttles

The daily sampling sequence should be supplied to a DuPont off-site lab service coordinator for ordering sample shuttles a minimum of 4 weeks prior to the sampling event. These sample shuttles (padded and insulated) should contain the appropriate number and size of sample containers with the required preservatives for the intended analysis for each monitoring site. COC documents should accompany each shuttle. Upon receipt of each shuttle, contents should be verified, and COC documents signed by the receiver.

2.13 Sample Labels

Sample labels should be affixed to each sample bottle. These labels should be durable and water resistant so they remain legible when wet. Once the sample labels are filled in with the sampling time, date and samplers initials, the label should be taped (clear packing tape) over to prevent it coming off while in transit. Each label shall contain the following information:

- Sample identification
- Initials of collector
- Site location and well identification
- Time and date of sample collection
- Analysis required
- Preservative

2.14 Chain of Custody

Tracing sample possession will be accomplished by using the COC record (see example COC form in Guideline B-5 Appendix B). A COC entry should be recorded for every sample and a COC record should accompany every sample shipment to the laboratory. At a minimum the COC record should contain the following information for each sample:

- Sample number and identification of sampling point
- Date and time of collection
- Sample type
- Number, type, and volume of sample container(s)
- Sample preservative
- Analysis requested

- Name, address, and phone number of collector or contact
- Name, address, and phone number of laboratory and laboratory contact
- Signature, dates, and times of persons in possession
- Any necessary remarks or special instructions

The COC should accompany the samples at all times: in transit from lab to the site, while on site, and in transit from site to the lab for analysis.

2.15 Field Documentation

In addition to use of the COC to record identification of collected samples, the Groundwater Sampling Sheet and field logbook will be used to document the following:

- Well identification
- Well depth (use annual well depth verification information so that total depth of well does not need to be measured during each event)
- Static water level depth
- Well yield and recovery rate during purging
- Well purging procedure and equipment
- Time well purged
- Sample collection method and equipment
- Date and time of sample collection
- Type of sample bottle used and sample identification
- Field observations of sampling event
- Name of collector
- Weather conditions including approximate air temperature

2.16 Waste Disposal

All water that is collected during decontamination procedures, well purging, and sampling will be placed in the plant wastewater treatment system.

Material used in samples that may be contaminated (personal protective equipment [PPE], tubing, filters, etc.) should be placed in waste receptacles specified by facility personnel, except for PPE known to have contacted 4-aminodipheny (4-ADP). 4-ADP contaminated PPE will be placed in special designated hazardous waste containers that will be identified during the site safety briefing.

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3.0 ANALYTICAL PROGRAM

3.1 Analytical Methods

Analytical methods used will be capable of achieving the quantitation limits or health-based standards contained in the Permit and the data quality requirements specified by the approved method (assuming no laboratory dilution of the sample is required to bring the concentration within the calibration range of the instrument). The Permit (Condition IV.B.1) specifies that benzene, toluene, aniline, and nitrobenzene be analyzed for on a semi-annual basis at all wells in the compliance monitoring program (see Table 2). In addition, at boundary control wells, groundwater protection parameters listed in Table 3 must be analyzed for on a biennial (every 2 years) basis. Monitoring wells MW-20S and MW-55S will be sampled on a biennial basis in alternating years for a site-specific Appendix IX list including:

- Volatiles
- Semi-volatiles
- Inorganics

Analytical methods used to quantify the analytes are specified in Table 3 along with the hold times. The Appendix IX list in Appendix C is supplied by the laboratory and is a comprehensive list of Appendix IX constituents that includes the site-specific constituents identified previously.

3.1.1 Detection Limits

Concentration limits for monitored constituents are specified in the Permit and are shown in Table 3. These concentration limits are generally the Method Detection Limit (MDL) as shown on Table 3.

3.2 Quality Control Procedures

Quality Assurance/Quality Control (QA/QC) Procedures should be in compliance with the most recent editions of SW-846 and the RCRA Groundwater Monitoring Draft Technical Guidance (EPA 1992). As part of the QC program, QC samples will be collected and prepared to provide control over the collection of environmental measurements and subsequent review, interpretation, and validation of generated analytical data. Four types of QC samples will be prepared or collected: 1) trip (i.e., travel) blanks 2) equipment (i.e., equipment rinsate) blanks; 3) duplicate (i.e., replicate) samples, and 4) matrix spike/matrix spike duplicates. The four types of QC samples are discussed in more detail below.

3.2.1 Trip Blanks

Trip blanks will be used during sampling activities of volatile organic constituents. The primary purpose of this type of blank will be to detect outside sources of contamination that might influence concentrations reported in actual samples, both quantitatively and qualitatively. Trip blanks will serve as a mechanism of control on sample bottle preparation and blank water quality as well as sample handling. Trip blanks will be prepared by the analytical laboratory as part of the shuttle preparation effort, shipped with the sample shuttle to the site, and remain with the shuttle at all times (including during field sampling). Each trip blank will be labeled and sealed at the

laboratory. The trip blank will travel to the site with empty sample bottles and back from the site with collected samples in an effort to simulate sample handling conditions. Contaminated trip blanks may indicate inadequate bottle cleaning or blank water of questionable quality. Possible sources of contamination include:

- Laboratory reagent water
- Sample containers
- Cross-contamination in shipping
- Ambient air or contact with analytical instrumentation during preparation and analysis at the laboratory
- Laboratory reagents used in analytical procedures

Trip blanks will consist of a set of sample bottles filled at the laboratory with laboratory-demonstrated analyte-free water. Trip blanks will be handled, transported, and analyzed in the same manner as the samples acquired that day, except the sample containers themselves will not be opened in the field.

Other guidelines for the use and integrity of trip blanks include:

- The clock governing holding times for the trip blank will begin at the time the associated samples are collected
- One trip blank will be included with each sample shuttle containing samples to be analyzed for volatile organics only

3.2.2 Equipment Blanks

Equipment blanks will be collected during sampling. These blanks will provide an additional check on possible sources of contamination beyond those indicated by trip blanks. Equipment blanks will serve a similar purpose as trip blanks and also will be used to indicate potential contamination from ambient air or sampling equipment used to collect and transfer samples. Sampling utilizing dedicated tubing and/or pumps does not require equipment blanks to be collected.

Equipment blanks will be collected in laboratory supplied sample containers. The equipment blank water is the same laboratory-demonstrated analyte-free water as the trip blanks and will be provided by the laboratory. Equipment blanks will be handled, transported, and analyzed in the same manner as the samples acquired that day. Analyte-free water will be rinsed over decontaminated sampling equipment and placed in the empty sample container for analysis. Equipment blanks will be collected from the submersible pump used in the three well-volume sampling. The sample will be collected by pumping laboratory-supplied water through the pump intake and collecting the sample from the pump discharge.

The rationale for collecting equipment rinsate samples at the suspected most impacted area is to simulate a worst-case scenario regarding sampling equipment cross contamination and ambient air contributions to sample contamination. Other guidelines for the use and integrity of equipment blanks include:

- The clock governing holding times for the equipment blank will begin at the time of sample collection.

- Equipment blanks will be collected and analyzed at a rate of one in 20 (minimum of one per day) for aqueous samples, with the one in 20 ratio applicable for three-well volume wells only. Equipment blanks will be analyzed for the same parameters for which the environmental samples collected that day are analyzed.

3.2.3 Field Duplicate Samples

Collecting duplicate samples allows evaluation of the laboratory performance by comparing the analytical results of two samples from the same location. Field duplicates will be collected for aqueous samples at a rate of one per 20 samples. The wells for which duplicates will be selected are chosen randomly prior to going into the field.

Duplicates of aqueous samples will be obtained by alternately filling sample containers from the sampling device for each parameter. VOC sample containers will be filled from the same aqueous sample retrieval and will be the first set of containers filled. If sample bottles are filled directly, then the sample container for each set of parameters will be alternately filled. Blind duplicates will not be collected; rather the duplicate sample will be labeled with the well name where the primary sample was collected, with an additional qualifier added for the duplicate sample.

3.2.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

A Matrix Spike (MS) is a duplicate sample of a primary investigatory sample to which the laboratory adds a spike containing analytes at known concentrations prior to extraction/analysis of the sample to assess the effect of sample matrix on the extraction and analysis methodology. The Matrix Spike Duplicate (MSD) is another duplicate sample of the primary investigatory sample that is similarly spiked. The MS/MSDs are prepared by taking two separate aliquots of a single homogenized sample and spiking with known concentrations of target analyte compounds prior to any extraction or digestion process.

The MS/MSDs are subjected to the entire analytical procedure in order to indicate both accuracy and precision of the method for the matrix by measuring the percent recovery and RPD (relative percent differences) of the two spiked samples. The sample selected for MS/MSD analysis may be from the location from which the field duplicate is obtained and will be indicated on the Chain of Custody form. Additional sample volumes will be collected to perform these analyses if required. MS/MSDs will be collected at a rate of one per 20 samples and are chosen randomly.

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4.0 REPORTING REQUIREMENTS

Groundwater monitoring results will be entered in the DuPont Corporate Environmental Database for data management purposes. The results of groundwater sampling activities will be summarized as part of the semi-annual effectiveness evaluation of the FCC corrective action system. This report is required to be transmitted to the Mississippi Department of Environmental Quality in accordance with Permit requirements. Currently, reports are submitted in March and September.

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5.0 REFERENCES

EPA. September 1986. RCRA Ground-water Monitoring Technical Enforcement Guidance Document.

EPA. November 1986. Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition and Revisions, SW-846, Chapter 11.

EPA. November 1992. RCRA Ground-water Monitoring: Draft Technical Guidance.

EPA. May 2002. Groundwater Sampling Guidelines for Superfund and RCRA Project Managers, Groundwater Forum Issue Paper.

EPA. July 29, 2013. US-EPA, Region 4, Science and Ecosystem Support Division, Field Branches Quality System and Technical Procedures. On-line: http://www.epa.gov/region4/sesd/fbqstp/index.html

Parsons. January 2013. Health and Safety Plan (HASP) for the Monitoring and Reporting Program.

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FIGURES

N

MISSISSIPPI

FIRST CHEMICAL CORPORATION FACILITY

FIRST CHEMICAL CORPORATION FACILITY

MISSISSIPPI SOUND

REGISTERED PROFESSIONAL GEOLOGIST
MS 0083
ROBERT L. LIDDLE

0 1,900 3,800 7,600 Feet

Path: F:\GIS\Pascagoula\Project_Figures\REPORT SAP REVISION (2013)\FIGURE 1 SITE LOC MAP.mxd

PARSONS
Parsons Environment & Infrastructure

2200 West Loop South
Suite 200
Houston, Texas 77027

Title:

Site Location Map
Groundwater Compliance Monitoring
Sampling and Analysis Plan
First Chemical Corporation, Pascagoula, MS
Permit No. MSD033417031

Drawn/Approved: RAH/	File Project Number: 447745.02000
Date: 8/13/2013	Figure Number: 1
Revised:	
File Name: FIGURE 1 SITE LOC MAP	

PARSONS

Parsons Environment & Infrastructure

2200 West Loop South
Suite 200
Houston, Texas 77027

Title:

Facility Map
Groundwater Compliance Monitoring
Sampling and Analysis Plan
First Chemical Corporation, Pascagoula, MS
Permit No. MSD033417031

Drawn/Approved: RAH/	File Project Number: 447745.02000
Date: 8/15/2013	Figure Number: 2
Revised:	
File Name: FIGURE 2 FACILITY MAP	

Path: F:\GIS\Pascagoula\Project_Figures\REPORT SAP REVISION (2013)\FIGURE 2 FACILITY MAP.mxd

N

REGISTERED PROFESSIONAL GEOLOGIST
MS 0083
ROBERT L. LIDDLE

SW-01
MW-62
MW-01
MW-41
MW-27
MW-07
MW-63
MW-61
MW-42R
MW-43
MW-22
MW-15
MW-45
MW-19
T-14
MW-14
MW-46R
GROUNDWATER RECOVERY TRENCH
PZT-01
FORMER POND 3 (NOW CAPPED)
MW-10
MW-11
T-17
MW-64
MW-17
MW-44
T-15
PZT-02
MW-60
MW-13
MW-16
MW-59
MW-48
MW-66
MW-65
MW-02
MW-50D
MW-50S
MW-04
MW-47S
SW-04
MW-58R
MW-37
MW-67
MW-38
MW-55S
MW-55D
MW-49
MW-68
MW-53
MW-20S
MW-20D
PZT-03
MW-70
MW-51
MW-52
MW-32
MW-39
MW-69
MW-05
MW-36
MW-54
MW-56D
T-16
MW-26
MW-56S
SW-05
MW-25
MW-30
MW-29
T-10
MW-71
MW-57S
MW-57D
MW-28
MW-31R
MW-74
MW-72
MW-73
SW-09

0 75 150 300 Feet

LEGEND

- Compliance Plan Monitoring Well Location
- Corrective Action Monitoring Well Location
- Boundary Control Monitoring Well Location
- Other Monitoring Well Location
- Temporary Well Location
- Surface Water Location

Path: F:\GIS\Pascagoula\Project_Figures\REPORT SAP REVISION (2013)\FIGURE 3 UPPER SAND WELL LOC MAP.mxd

PARSONS
Parsons Environment & Infrastructure

2200 West Loop South
Suite 200
Houston, Texas 77027

Title:

Upper Sand Well Location Map
Groundwater Compliance Monitoring
Sampling and Analysis Plan
First Chemical Corporation, Pascagoula, MS
Permit No. MSD033417031

Drawn/Approved: RAH/	File Project Number: 447745.02000
Date: 8/12/2013	Figure Number: 3
Revised:	
File Name: FIGURE 3 UPPER SAND WELL LOC MAP	

N

REGISTERED PROFESSIONAL GEOLOGIST
MS
0083
ROBERT L. LIDDLE

MW-10

FORMER POND 3
(NOW CAPPED)

MW-50D

MW-47D

MW-20D

GROUNDWATER
RECOVERY TRENCH

MW-55D

MW-56D

MW-57D

0 75 150 300
Feet

LEGEND

- Compliance Plan Monitoring Well Location
- Corrective Action Monitoring Well Location
- Boundary Control Monitoring Well Location
- Other Monitoring Well Location
- Temporary Well Location

Path: F:\GIS\Pascagoula\Project_Figures\REPORT SAP REVISION (2013)\FIGURE 4 LOWER SAND SILT WELL LOC MAP.mxd

PARSONS
Parsons Environment & Infrastructure

2200 West Loop South
Suite 200
Houston, Texas 77027

Title:

Lower Sand/Silt Well Location Map
Groundwater Compliance Monitoring
Sampling and Analysis Plan
First Chemical Corporation, Pascagoula, MS
Permit No. MSD033417031

Drawn/Approved: RAH/	File Project Number: 447745.02000
Date: 8/12/2013	Figure Number: 4
Revised:	
File Name: FIGURE 4 LOWER SAND SILT WELL LOC MAP	

TABLES

Table 1
Well Completion Summary
Groundwater Compliance Monitoring Sampling and Analysis Plan
First Chemical Corp., Pascagoula, Mississippi

Site	Installation Date	Status	MP Elevation (feet MSL)	Total Depth (feet bgs)	Screen Length (feet)	Screen Interval (feet bgs)	Casing Diameter (inches)	Casing Type	Unit Screened
MW-01	06/01/82	Active	10.62	20	5	12 - 17	4.00	Sch. 40 PVC	Upper Sand
MW-02	06/01/82	Active	13.77	16	5	11 - 16	4.00	Sch. 40 PVC	Upper Sand
MW-03	06/02/82	P&A	14.37	17	5	9 - 14	4.00	Sch. 40 PVC	Upper Sand
MW-04	06/02/82	Active	13.80	16	5	8 - 13	4.00	Sch. 40 PVC	Upper Sand
MW-05	06/01/82	Active	15.49	20	5	12 - 17	4.00	Sch. 40 PVC	Upper Sand
MW-06	06/02/82	P&A	9.67	18	5	8 - 13	4.00	Sch. 40 PVC	Upper Sand
MW-07	06/01/82	Active	14.47	18	5	11 - 16	4.00	Sch. 40 PVC	Upper Sand
MW-08	06/02/82	P&A	---	52	5	45-50	---	Sch. 40 PVC	Lower Sand/Silt
MW-09	06/02/82	P&A	13.84	20	5	10 - 15	4.00	Sch. 40 PVC	Upper Sand
MW-10	08/03/84	Active	13.47	66	10	49 - 59	4.00	Sch. 40 PVC	Lower Sand/Silt
MW-11	07/31/84	Active	13.63	15.5	10	5 - 15	4.00	Sch. 40 PVC	Upper Sand
MW-12	07/31/84	P&A 6/11/2007	16.20	15.5	10	5 - 15	4.00	Sch. 40 PVC	Upper Sand
MW-13	08/02/84	Active	10.42	12.5	10	2 - 12	4.00	Sch. 40 PVC	Upper Sand
MW-14	07/31/84	Active	6.84	12.5	10	2 - 12	4.00	Sch. 40 PVC	Upper Sand
MW-15	12/16/85	Active	13.72	15.5	11	4.5-15.5	4.00	Sch. 40 PVC	Upper Sand
MW-16	12/16/85	Active	13.99	16	11	4.5-15.5	4.00	Sch. 40 PVC	Upper Sand
MW-17	12/17/85	Active	14.89	14.5	10	4.5-14.5	4.00	Sch. 40 PVC	Upper Sand
MW-18	04/02/86	P&A	15.21	14	10	2.5 - 12.5	4.00	Sch. 40 PVC	Upper Sand
MW-19	04/02/86	Active	14.96	12	10	2 - 12	4.00	Sch. 40 PVC	Upper Sand
MW-20S	04/01/86	Active	12.02	13.5	8	4.5-12.5	4.00	Sch. 40 PVC	Upper Sand
MW-20D	04/01/86	Active	12.77	57	10	47 - 57	4.00	Sch. 40 PVC	Lower Sand/Silt
MW-21S	04/01/86	P&A	11.63	12.5	10	2.5 - 12.5	4.00	Sch. 40 PVC	Upper Sand
MW-21D	04/01/86	P&A	14.47	56.5	10	46.5 - 56.5	4.00	Sch. 40 PVC	Lower Sand/Silt
MW-22	06/13/86	Active	7.67	12.5	10	2.5 - 12.5	4.00	Sch. 40 PVC	Upper Sand
MW-23	06/12/86	P&A	6.48	11	10	1 - 11	4.00	Sch. 40 PVC	Upper Sand
MW-24	06/10/86	P&A	10.84	12.5	10	2.5 - 12.5	4.00	Sch. 40 PVC	Upper Sand
MW-25	06/11/86	Active	14.15	15.5	10	5.5 - 15.5	4.00	Sch. 40 PVC	Upper Sand
MW-26	06/11/86	Active	13.08	15.5	10	5.5 - 15.5	4.00	Sch. 40 PVC	Upper Sand
MW-27	06/11/86	Active	12.10	12.5	10	2.5 - 12.5	4.00	Sch. 40 PVC	Upper Sand
MW-28	06/13/86	Active	12.55	14	10	4 - 14	4.00	Sch. 40 PVC	Upper Sand
MW-29	06/30/86	Active	13.99	15.5	10	5.5 - 15.5	4.00	Sch. 40 PVC	Upper Sand
MW-30	06/30/86	Active	13.79	15.5	10	5.5 - 15.5	4.00	Sch. 40 PVC	Upper Sand
MW-31	07/02/86	P&A	8.05	11	10	1 - 11	4.00	Sch. 40 PVC	Upper Sand
MW-31R	07/15/01	Active	12.31	15.5	9	4-13	4.00	Sch. 40 PVC	Upper Sand
MW-32	07/02/86	Active	6.88	9.5	5	4.5 - 9.5	4.00	Sch. 40 PVC	Upper Sand
MW-33	07/09/86	P&A	16.20	16.5	10	6.5-16.5	4.00	Sch. 40 PVC	Upper Sand
MW-33R	08/23/88	P&A 6/11/2007	15.40	18	5	13-18	2.00	Stainless Steel	Upper Sand
MW-34	07/09/86	P&A	14.97	16.5	10	6.5 - 16.5	4.00	Sch. 40 PVC	Upper Sand
MW-34R	08/22/88	P&A 6/11/2007	14.72	18	5	13-18	2.00	Stainless Steel	Upper Sand
MW-35	07/10/86	P&A	12.47	16.5	10	6.5 - 16.5	4.00	Sch. 40 PVC	Upper Sand
MW-36	07/18/86	Active	10.26	11	10	1 - 11	4.00	Sch. 40 PVC	Upper Sand
MW-37	07/28/86	Active	11.71	11	5	6 - 11	4.00	Sch. 40 PVC	Upper Sand
MW-38	07/28/86	Active	12.15	12.5	5	7.5 - 12.5	4.00	Sch. 40 PVC	Upper Sand
MW-39	07/29/86	Active	6.98	10	5	5 - 10	2.00	Sch. 40 PVC	Upper Sand
MW-40	---	P&A	---	---	---	---	---	---	Upper Sand
MW-41	03/02/87	Active	8.95	15	5.3	6.8 - 12.1	2.00	Stainless Steel	Upper Sand
MW-42	03/02/87	P&A	12.04	17.5	5	10.2 - 15.2	2.00	Stainless Steel	Upper Sand
MW-42R	07/15/01	Active		17.5	10	5-15	2.00	Stainless Steel	Upper Sand
MW-43	03/06/87	Active	9.89	15.2	11.9	3.3 - 15.2	2.00	Stainless Steel	Upper Sand
MW-44	03/16/87	Active	9.15	12.8	9	3.7 - 12.7	2.00	Stainless Steel	Upper Sand
MW-45	03/12/87	Active	9.37	15	10	4 - 14	2.00	Stainless Steel	Upper Sand
MW-46	03/16/87	P&A	10.34	12.7	9	3.7 - 12.7	2.00	Stainless Steel	Upper Sand

Table 1
Well Completion Summary
Groundwater Compliance Monitoring Sampling and Analysis Plan
First Chemical Corp., Pascagoula, Mississippi

Site	Installation Date	Status	MP Elevation (feet MSL)	Total Depth (feet bgs)	Screen Length (feet)	Screen Interval (feet bgs)	Casing Diameter (inches)	Casing Type	Unit Screened
MW-46R	---	Active	8.67	12.7	9	3.7 - 12.7	2.00	Stainless Steel	Upper Sand
MW-47S	03/05/87	Active	9.33	15	10.3	3.6 - 13.9	2.00	Stainless Steel	Upper Sand
MW-47D	03/24/87	Active	10.13	39	4.8	31.2 - 36	2.00	Stainless Steel	Lower Sand/Silt
MW-48	03/13/87	Active	12.17	16.8	11.5	5.3 - 16.8	2.00	Stainless Steel	Upper Sand
MW-49	03/04/87	Active	13.76	18.5	10	7.4 - 17.4	2.00	Stainless Steel	Upper Sand
MW-50S	03/12/87	Active	13.74	18.7	13.2	5.5 - 18.7	2.00	Stainless Steel	Upper Sand
MW-50D	03/04/87	Active	14.04	37.3	5.4	30.6 - 36	2.00	Stainless Steel	Lower Sand/Silt
MW-51	03/13/87	Active	15.01	15.2	10.1	4.6 - 14.7	2.00	Stainless Steel	Upper Sand
MW-52	03/17/87	Active	9.96	17	11.9	4.5 - 16.4	2.00	Stainless Steel	Upper Sand
MW-53	03/18/87	Active	7.88	12.3	7.7	3.8 - 11.5	2.00	Stainless Steel	Upper Sand
MW-54	03/17/87	Active	9.43	12.7	7.6	4.1 - 11.7	2.00	Stainless Steel	Upper Sand
MW-55S	03/06/87	Active	6.36	14	10	3.7 - 13.7	2.00	Stainless Steel	Upper Sand
MW-55D	03/25/87	Active	6.49	37	4.8	30.2 - 35	2.00	Stainless Steel	Lower Sand/Silt
MW-56S	03/11/87	Active	6.63	12.3	8.6	3.3 - 11.9	2.00	Stainless Steel	Upper Sand
MW-56D	03/26/87	Active	6.83	39	6.4	33.2 - 38.6	2.00	Stainless Steel	Lower Sand/Silt
MW-57S	03/11/87	Active	6.37	10.8	6.1	4.7 - 10.8	2.00	Stainless Steel	Upper Sand
MW-57D	03/27/87	Active	6.13	42.7	5	33.6 - 38.6	2.00	Stainless Steel	Lower Sand/Silt
MW-58	03/19/87	P&A	14.64	20.5	13.9	5.6 - 19.5	2.00	Stainless Steel	Upper Sand
MW-58R	07/15/01	Active	15.05	20	10	8 - 18	2.00	Stainless Steel	Upper Sand
MW-59	03/19/87	Active	15.76	19	13	5.5 - 18.5	2.00	Stainless Steel	Upper Sand
MW-60	03/20/87	Active	13.72	20.5	13.5	3.7 - 17.2	2.00	Stainless Steel	Upper Sand
MW-61	03/20/87	Active	13.75	20.5	12.2	4.5 - 16.7	2.00	Stainless Steel	Upper Sand
MW-62	12/01/94	Active	13.92	17	5	11 - 16	2.00	Stainless Steel	Upper Sand
MW-63	---	Active	10.69	14.4	---	---	2.00	Stainless Steel	Upper Sand
MW-64	01/18/07	Active	6.24	12	5	7 - 12	2.00	Stainless Steel	Upper Sand
MW-65	01/18/07	Active	6.26	12	5	7 - 12	2.00	Stainless Steel	Upper Sand
MW-66	01/18/07	Active	5.51	12	5	7 - 12	2.00	Stainless Steel	Upper Sand
MW-67	10/18/11	Active	14.38	20	10	10 - 20	2.00	Sch. 40 PVC	Upper Sand
MW-68	10/18/11	Active	13.51	14	10	4 - 14	2.00	Sch. 40 PVC	Upper Sand
MW-69	10/19/11	Active	13.91	17	10	7 - 17	2.00	Sch. 40 PVC	Upper Sand
MW-70	10/19/11	Active	13.12	14	10	4 - 14	2.00	Sch. 40 PVC	Upper Sand
MW-71	06/18/13	Active	9.67	15	10	5 - 15	2.00	Sch. 40 PVC	Upper Sand
MW-72	06/19/13	Active	7.65	15	10	5 - 15	2.00	Sch. 40 PVC	Upper Sand
MW-73	06/18/13	Active	7.32	15	10	5 - 15	2.00	Sch. 40 PVC	Upper Sand
MW-74	06/19/13	Active	8.89	15	10	5 - 15	2.00	Sch. 40 PVC	Upper Sand
PZT-01	12/18/07	Active	6.28	8	5	3 - 8	2.00	Stainless Steel	Upper Sand
PZT-02	12/18/07	Active	6.27	8	5	3 - 8	2.00	Stainless Steel	Upper Sand
PZT-03	12/18/07	Active	7.22	8	5	3 - 8	2.00	Stainless Steel	Upper Sand
T-01	---	Inactive	---	---	---	---	2.00	Stainless Steel	Upper Sand
T-02	---	Inactive	---	---	---	---	2.00	Stainless Steel	Upper Sand
T-03	---	Inactive	---	---	---	---	2.00	Stainless Steel	Upper Sand
T-04	---	Inactive	---	---	---	---	2.00	Stainless Steel	Upper Sand
T-05	---	Inactive	---	---	---	---	2.00	Stainless Steel	Upper Sand
T-06	---	Inactive	---	---	---	---	2.00	Stainless Steel	Upper Sand
T-07	---	Inactive	---	---	---	---	2.00	Stainless Steel	Upper Sand
T-08	---	Inactive	---	---	---	---	2.00	Stainless Steel	Upper Sand
T-09	---	Inactive	---	---	---	---	2.00	Stainless Steel	Upper Sand
T-10	---	Active	13.00	15.95	---	---	2.00	Stainless Steel	Upper Sand
T-11	---	Inactive	---	---	---	---	2.00	Stainless Steel	Upper Sand
T-12	---	Inactive	---	---	---	---	2.00	Stainless Steel	Upper Sand
T-13	---	Inactive	---	---	---	---	2.00	Stainless Steel	Upper Sand
T-14	11/18/88	Active	8.59	14.25	5	9.25-14.25	2.00	Stainless Steel	Upper Sand

Table 1
Well Completion Summary
Groundwater Compliance Monitoring Sampling and Analysis Plan
First Chemical Corp., Pascagoula, Mississippi

Site	Installation Date	Status	MP Elevation (feet MSL)	Total Depth (feet bgs)	Screen Length (feet)	Screen Interval (feet bgs)	Casing Diameter (inches)	Casing Type	Unit Screened
T-15	11/17/88	Active	10.18	12.83	5	7.83-12.83	2.00	Stainless Steel	Upper Sand
T-16	11/17/88	Active	14.06	15	5	8.13-13.13	2.00	Stainless Steel	Upper Sand
T-17	11/16/88	Active	10.28	13	5	8-13	2.00	Stainless Steel	Upper Sand

MSL = Mean Sea Level

bgs = below ground surface

MP = measuring point

P&A = plugged and abandoned

Table 2
Groundwater Monitoring Program
Groundwater Compliance Monitoring Sampling and Analysis Plan
First Chemical Corp., Pascagoula, Mississippi

	Well ID	Frequency of Sampling for Underlined Groundwater Protection Parameters (Permit Condition IV.C.1)	Frequency of Sampling for all Groundwater Protection Parameters (Permit Condition IV.C.1)	40 CFR Part 264 Appendix IX Parameters
Compliance Wells	MW-48	Semi-annually	-	-
Corrective Action Effectiveness Monitoring Wells	MW-20S	Semi-annually	-	Biennially[1]
	MW-41	Semi-annually	-	-
	MW-55S	Semi-annually	-	Biennially[2]
	MW-57S	Semi-annually	-	-
	MW-60	Semi-annually	-	-
	MW-61	Semi-annually	-	-
	MW-62	Semi-annually	-	-
	MW-64	Semi-annually	-	-
	MW-65	Semi-annually	-	-
			-	-
Boundary Control Monitoring Wells	MW-01	Semi-annually	Biennially[1]	-
	MW-14	Semi-annually	Biennially[1]	-
	MW-19	Semi-annually	Biennially[1]	-
	MW-22	Semi-annually	Biennially[1]	-
	MW-26	Semi-annually	Biennially[1]	-
	MW-27	Semi-annually	Biennially[1]	-
	MW-28	Semi-annually	Biennially[1]	-
	MW-29	Semi-annually	Biennially[1]	-
	MW-39	Semi-annually	Biennially[1]	-
	MW-63	Semi-annually	Biennially[1]	-
	MW-66	Semi-annually	Biennially[1]	-
				-

This list of wells is specified in Permit No. MSD 033 417 031, re-issued February 2014.
Semi-annually: Samples collected during months of Jan-Jun and Jul-Dec
Biennially[1]: every odd numbered year
Biennially[2]: every even numbered year
Note that the underlined parameters are benzene, toluene, aniline, and nitrobenzene.

Table 3

Groundwater Analytical Program

Groundwater Compliance Monitoring Sampling and Analysis Plan
First Chemical Corp., Pascagoula, Mississippi

Constituents of Potential Concern	Concentration Limits (mg/L)	Analytical Method (SW-846)	Maximum Hold Time
VOCs			
Benzene[2]	0.005	8260B	14 days (preserved)
Toluene[2]	1	8260B	14 days (preserved)
Carbon disulfide	MDL	8260B	14 days (preserved)
SVOCs			
Aniline[2]	MDL	8270C	7 days; 40 days (extracted)
Nitrobenzene[2]	MDL	8270C	7 days; 40 days (extracted)
2,4-Dinitrotoluene	MDL	8270C	7 days; 40 days (extracted)
2,6-Dinitrotoluene	MDL	8270C	7 days; 40 days (extracted)
2,4-Dinitrophenol	MDL	8270C	7 days; 40 days (extracted)
2-Nitrophenol	MDL	8270C	7 days; 40 days (extracted)
3-Nitroaniline	MDL	8270C	7 days; 40 days (extracted)
4-Aminobiphenyl	MDL	8270C	7 days; 40 days (extracted)
4-Nitrophenol	MDL	8270C	7 days; 40 days (extracted)
4,6-Dinitro-o-cresol	MDL	8270C	7 days; 40 days (extracted)
5-Nitro-ortho-toluidine	MDL	8270C	7 days; 40 days (extracted)
Naphthalene	MDL	8270C	7 days; 40 days (extracted)
N-nitrosodiphenylamine + Diphenylamine[3]	MDL	8270C	7 days; 40 days (extracted)
o-Cresol	MDL	8270C	7 days; 40 days (extracted)
o-Toluidine	MDL	8270C	7 days; 40 days (extracted)
Phenol	MDL	8270C	7 days; 40 days (extracted)
m- & p-Cresol	MDL	8270C	7 days; 40 days (extracted)
m-Dinitrobenzene	MDL	8270C	7 days; 40 days (extracted)
Total phenols[1]	NA	NA	7 days; 40 days (extracted)
INORGANICS			
Antimony	0.006	6020A	6 months (preserved)
Arsenic	MDL	6010B	6 months (preserved)
Barium	0.00062	6010B	6 months (preserved)
Beryllium	0.004	6010B	6 months (preserved)
Cadmium	0.005	6010B	6 months (preserved)
Chromium	0.1	6010B	6 months (preserved)
Cobalt	0.0021	6010B	6 months (preserved)
Cyanide	0.2	9012A	6 months (preserved)
Nickel	0.00559	6010B	6 months (preserved)
PESTICIDES AND HERBICIDES			
2,4-Dichlorophenoxyacetic acid	MDL	8151A	7 days; 40 days (extracted)
Aldrin	MDL	8081A	7 days; 40 days (extracted)
Delta-BHC	MDL	8081A	7 days; 40 days (extracted)
Endosulfan I	MDL	8081A	7 days; 40 days (extracted)
Heptachlor	MDL	8081A	7 days; 40 days (extracted)
Lindane	MDL	8081A	7 days; 40 days (extracted)

mg/L = milligrams per liter
MDL = method detection limit; NA = not applicable
Constituents of potential concern are listed as hazardous constituents in the permit, and are specified in Permit No. MSD 033 417 031 .
[1]Total phenols are reported as the summation of the phenols contained in the list of hazardous constituents.
[2]Constituents underlined and in bold are analyzed semi-annually in all Table 1 wells.
The remaining constituents are analyzed in "boundary control monitoring wells" on a biennial basis.
3-Nitrolaniline, 4-aminobiphenyl, 5-nitro-ortho-toluidine, naphthalene, barium, cobalt, nickel, and the 10 pesticides/herbicides were added to the list based on detections in MW-20S in 2005.
[3]Method 8270C reports all N-nitrosodiphenylamine and diphenylamine as N-nitrosodiphenylamine.
Site process knowledge indicates only Diphenylamine was manufactured at the site.

APPENDIX A
FIELD FORMS

Site-Wide Groundwater Elevations

Well Number	Time	Depth to Water (feet)	Comments
MW-01			
MW-02			
MW-04			
MW-05			
MW-07			
MW-11			
MW-13			
MW-14			
MW-15			
MW-16			
MW-17			
MW-19			
MW-20S			
MW-22			
MW-25			
MW-26			
MW-27			
MW-28			
MW-29			
MW-30			
MW-31R			
MW-32			
MW-36			
MW-37			
MW-38			
MW-39			
MW-41			
MW-42R			
MW-43			
MW-44			
MW-45			
MW-46R			
MW-47S			
MW-48			
MW-49			
MW-50S			
MW-51			
MW-52			
MW-53			
MW-54			
MW-55S			
MW-56S			
MW-57S			
MW-58R			
MW-59			
MW-60			
MW-61			
MW-62			
MW-63			
MW-64			
MW-65			

Site-Wide Groundwater Elevations

Well Number	Time	Depth to Water (feet)	Comments
MW-66			
PZT-01			
PZT-02			
PZT-03			
T-10			
T-14			
T-15			
T-16			
T-17			
MW-10			
MW-20D			
MW-47D			
MW-50D			
MW-55D			
MW-56D			
MW-57D			

GROUNDWATER SAMPLING SHEET

Project No:	**Task No:**	**Project Name:**	**Date:** / /
Site Location:	**Sampler(s):**		
Well ID:	**(1)Depth to Water (ft):**	**DTW After Purge (ft):**	
Screen Interval (ft):	**(2)Total Well Depth (ft):**	**Measurements Referenced to:** TOC	
Pump Placement (ft):	**Well Diameter (inch):**	**OVM (ppm) =**	

CALCULATIONS: Values for 1 and 2 from above.

Length of the water column: _____ (2) ft - _____ (1) ft = _____ (3) ft

Estimated Purge Volume (EPV): _____ (3) ft X _____ gal/lin. ft. X 3 Casing Volumes = _____ Gallons

( ) Low-Flow/Micro Purging
( ) Purge at least 3 well volumes

Volume of Schedule 40 PVC Pipe

Well Diameter (inches).	gal/linear ft.
1.00	0.041
2.00	0.163
3.00	0.367
4.00	0.653
5.00	1.023
6.00	1.469

Purging Equipment:
( ) Disposable Bailer
( ) Electric Submergible Pump
( ) Peristaltic Pump

Sampling Equipment:
( ) Disposable Bailer
( ) Dedicated Tubing
( ) Other:_____

Type of Water Quality Kit Used:
( ) YSI-6920
( ) YSI 6820
( ) (Other - specify)

Time (24 hrs)	Water Level (ft)	Turbidity (NTUs)	DO (mg/l)	pH (units)	Spec.Cond. (uS/cm)	ORP (mv)	Temp. (^{0}C or ^{0}F)	Color	Odor
(3 - 5 min)	--	(+ 10%)	(+ 0.3)	(+ 0.1)	(+ 3%)	(+ 10mV)			

Gallons Purged: **Purge Rate** (Low Flow:<0.2 to 0.5 L/min, then increase slowly noting not to create a drawdown > 0.33 ft.)

Sampling Time: **Sample Rate** (Low Flow:<0.2 to 0.5 L/min, a rate which produces a smooth, constant (laminar) flow rate.)

Notes: _____

APPENDIX B
GROUNDWATER SAMPLING GUIDELINES

1.0 INTRODUCTION

1.1 Purpose

The purpose of this guideline is to provide instruction for conventional purging of a groundwater well prior to collecting samples for chemical analysis. Potential hazards are addressed in the Health and Safety Plan (HASP).

2.0 PROCEDURES

This procedure must be carried out in the following manner:

1. Be aware of safety. Don appropriate personal protective equipment (PPE), as prescribed by the Health and Safety Plan (HASP) for the project.
2. Locate the desired monitoring well using a current site map. Note the following information in the field notebook or sampling data sheets: date, time, job site location, well identification number, ambient weather conditions, name of sampling personnel, purge method and equipment, and any other field observations such as well box condition, standing water, etc.
3. Remove well box cover, lock, and well cap
4. Note whether there is an odor associated with the groundwater and record it on the field log.
5. If the well is known not to contain light non-aqueous phase liquid (LNAPL), take the depth-to-water measurement in the well using an electronic water level meter. Otherwise, use an interface probe to measure the LNAPL thickness and depth to water. Record all measurements in the field log.
6. Using the electronic water level meter or the interface probe, lower the probe end of the meter or probe until it touches the bottom of the well.
7. Holding the measuring tape near the measuring reference point, alternately raise and lower the probe to get an accurate feel of the bottom of the well. Record this measurement in the field log.
8. Calculate the total volume of standing water within the well casing.
9. Calculate the volume of water to be purged (e.g., three well volumes).
10. If a bailer is to be used, attach a sufficient length of new rope to the bailer.
11. If a centrifugal, peristaltic, or bladder pump is to be used, attach sufficient hose to the pump and lower it into the well.
12. Begin purging the well. The well should be purged at a rate low enough to prevent water from cascading down the sides of the well, if at all possible.
13. When no sediment is visible in the purging water, connect the water quality meter(s).
14. Measure the temperature, specific conductivity, and pH of the water withdrawn from the well. Record these values in the field log. Repeat the measurements at regular intervals. If the project-specific Sampling and Analysis Plan requires measurement of additional parameters (e.g., dissolved oxygen, redox potential, turbidity) measure and record these values in the field log.

15. Continue purging the well until the measured parameters stabilize, to within 10 percent for at least two consecutive measurements taken three to five minutes apart. If the measured parameters do not stabilize, five well volumes should be removed. At this point, the well is ready for sampling (see Guideline No. 1203).
16. If a well is purged to dryness or is purged such that full recovery exceeds two hours, the well should be sampled as soon as sufficient volume of water for sample collection has entered the well. If after 24 hours a sufficient volume of water cannot be recovered, a sample should not be collected and the deficiency should be noted in the field log.
17. Decontaminate all equipment before proceeding to the next well (also at the end of the day). Guideline No. 7201 lists procedures for sampling and measuring equipment decontamination.
18. Store any contaminated liquid, PPE, or disposable equipment in properly labeled containers for future disposal.

2.1 Special Considerations/Requirements/Equipment

Personnel implementing this guideline must ensure that the following are in place:

- ❑ Pump and Accessories
- ❑ Bailer (stainless steel, *Teflon*®, or disposable) and rope
- ❑ Electronic Water Level Meter or Interface Probe
- ❑ Water Quality Meter(s) (e.g., specific conductance, pH, temperature)
- ❑ Groundwater Field Logbook/Field Notebook

3.0 REFERENCES

The following sources were used in developing this guideline:

- ❑ EPA. RCRA Ground-Water Monitoring: Draft Technical Guidance. November 1992.
- ❑ EPA. SESD Operating Procedure – Groundwater Sampling. SESDPROC-301-R3. March 6, 2013.

1.0 INTRODUCTION

1.1 Purpose

The purpose of this guideline is to provide guidance for purging a groundwater monitoring well using low-flow techniques prior to collecting samples for chemical analysis. Potential hazards are addressed in the Health and Safety Plan (HASP).

2.0 PROCEDURE

2.1 Methodology

This procedure must be carried out in the following manner:

1. Be aware of safety. Don appropriate personal protective equipment (PPE), as prescribed by the Health and Safety Plan (HASP) for the project.
2. Locate the desired monitoring well using a current site map. Note the following information in the field notebook and/or sampling data sheets: date, time, job site location, well identification number, ambient weather conditions, name of sampling personnel, purge method and equipment, and any other field observations such as well box condition, standing water, etc.
3. Remove well box cover, lock, and well cap.
4. Note whether there is an odor associated with the groundwater and record it on the field log.
5. If the well is known not to contain light non-aqueous phase liquid (LNAPL), take the depth-to-water measurement in the well using an electronic water level meter. Otherwise, use an interface probe to measure the LNAPL thickness and depth to water. Record all measurements in the field log.
6. Attach sufficient hose to the pump (centrifugal, peristaltic, or bladder) and lower it into the well. The pump should be set at the middle of the screened interval if the well screen is completely covered by groundwater, or at the middle of the portion of the well screen that is covered by groundwater.
7. Begin purging the well. The well should be purged at or below its recovery rate, ideally less than 0.2 to 0.3 L/min. The wells should not be purged at a rate high enough to allow formation water to cascade down the sides of the screen.
8. Connect the water quality meter(s) to the hose. Measure the temperature, specific conductivity, and pH of the water withdrawn from the well. Record these values in the field log. Repeat the measurements at regular intervals. If the project-specific Sampling and Analysis Plan requires measurement of additional parameters (e.g., dissolved oxygen, redox potential, turbidity) measure and record these values in the field log.
9. Continue purging the well until the measured parameters stabilize, to within 10 percent for at least two consecutive measurements taken three to five minutes apart. At this point, the well is ready for sampling (see Guideline No. 1203).

10. Decontaminate all equipment before proceeding to the next well (also at the end of the day). Guideline No. 7201 lists procedures for sampling and measuring equipment decontamination.
11. Store any contaminated liquid, PPE, or disposable equipment in properly labeled containers for future disposal.

2.2 Special Considerations/Requirements/Equipment

Personnel implementing this guideline should ensure that the following are in place:

- ❑ Pump and Accessories
- ❑ Water Quality Meter(s) (e.g., specific conductance, pH, temperature)
- ❑ Electronic Water Level Meter or Interface Probe
- ❑ Groundwater Field Logbook/Field Notebook

3.0 REFERENCES

The following sources were used in developing this guideline:

- ❑ EPA. RCRA Ground-Water Monitoring: Draft Technical Guidance. November 1992.
- ❑ EPA. SESD Operating Procedure – Groundwater Sampling. SESDPROC-301-R3. March 6, 2013.

1.0 INTRODUCTION

1.1 Purpose

The purpose of this guideline is to provide guidance for the collection of groundwater samples for chemical analysis. Potential hazards are addressed in the Health and Safety Plan (HASP).

2.0 PROCEDURE

This procedure must be carried out in the following manner:

1. Be aware of safety. Don appropriate personal protective equipment (PPE), as prescribed by the Health and Safety Plan (HASP) for the project.
2. Be certain that measured groundwater parameters have stabilized.
3. The choice of sampling containers, preservation, and holding times should be based on consideration of the desired analytes.
4. The more volatile samples should be collected first. For example, volatile organic analysis (VOA) bottles and total organic halides (TOX) should be filled first, followed by semi-volatile organics, inorganics, and metals.
5. Care must be taken to prevent the sample container rim or cap from contacting any potentially contaminated surface such as fingers, rope, bailer, or pump tubing.
6. When pouring from a bailer or using a sample pump, direct a slow, steady stream of water into the sample container, trying to minimize the aeration of the sample.
7. For sample containers with septums, fill the sample container to the top of the container so that a meniscus is formed. Allow any air bubbles to rise to the surface. Carefully and quickly screw the cap onto the container and finger tighten.
8. Invert the sample and tap it gently, looking for any air bubbles. If the sample contains air bubbles, discard the sample and repeat the sampling process with a new sampling container.
9. Other liquid sample containers should be 90 percent full.
10. If applicable, obtain a duplicate sample from the same well following the same procedures.
11. Affix the appropriate sample container label on all containers. Make sure that each sample is assigned a unique name that matches the name on the chain-of-custody form.
12. Place all samples on ice in an ice chest.
13. Decontaminate all nondisposable sampling equipment prior to moving to another well (and at the end of the day) following procedures in Guideline No. 7201.
14. See Guideline 8002 for post-sampling procedures concerning packaging and shipping of groundwater samples.

2.1 QA/QC

Appropriate trip blanks, field blanks, and duplicates will be utilized to determine the accuracy and precision of the field task, sampling, and laboratory analysis.

2.2 Special Considerations/Requirements/Equipment

Personnel implementing this guideline must ensure that the following are in place:

- ❑ Appropriate Sample Containers and Preservatives
- ❑ Sampling Pump and Accessories (peristaltic, downhole, etc.)
- ❑ Bailer (stainless steel, *Teflon*®, or disposable) and rope
- ❑ Chain-of-Custody Forms
- ❑ Ice and Sample Shuttle (e.g., cooler)
- ❑ Sample Container Labels
- ❑ Waterproof Pen

3.0 REFERENCES

The following sources were used in developing this guideline:

- ❑ Driscoll, Fletcher G., Ph.D., "Groundwater and Wells," Second Edition, Johnson Division, St. Paul, Minnesota, 1986.
- ❑ EPA. RCRA Ground-Water Monitoring: Draft Technical Guidance. November 1992.
- ❑ EPA. SESD Operating Procedure – Groundwater Sampling. SESDPROC-301-R3. March 6, 2013.

1.0 INTRODUCTION

1.1 Purpose

The purpose of this guideline is to provide guidance for packaging and shipping of liquid samples for delivery to a licensed laboratory for analytical testing. Potential hazards are addressed in the Health and Safety Plan (HASP).

2.0 PROCEDURE

This procedure must be carried out in the following manner:

1. Be aware of safety. Don appropriate personal protective equipment (PPE), as prescribed by the Health and Safety Plan (HASP) for the project.
2. Place the environmental sample containers in shipping foam or in bubble wrap and chill on ice prior to transport to the laboratory.
3. Line the ice chest with a large plastic bag and place the sample containers in the plastic bag. Fill the bag with ice or a comparable substitute to maintain a constant temperature of 4°C. Seal the bag. Place packing material in the ice chest to fill all voids.
4. Obtain a chain-of-custody and fill out all appropriate areas including analytical lab address, type of analysis, number and type of samples, turnaround time, etc.
5. Notify the appropriate analytical laboratory of the samples and request a pick up.
6. The generator is to sign the chain of custody as the "Relinquisher"; the laboratory representative is to sign as the "Receiver." Give one copy of the chain-of-custody to the laboratory representative and retain one copy for the future report; a third copy is for the job file.
7. Seal the lid of the ice chest with a custody seal, sign, and give the ice chest containing the samples to the laboratory representative.
8. If the ice chest is to be shipped to the analytical laboratory rather than picked up by a representative of the laboratory, retain one copy of the completed chain-of-custody and place the other two copies in a waterproof bag and place the bag inside the ice chest. The chain-of-custody should list only those samples contained in the particular ice chest.
9. Seal the ice chest with a custody seal and secure the ice chest with strapping tape.

2.1 Special Considerations/Requirements/Equipment

Personnel implementing this guideline must ensure that the following are in place:

- ❑ Chain-of-Custody Forms
- ❑ Custody Seal
- ❑ Environmental Samples
- ❑ Ice and Sample Shuttle (e.g., cooler)
- ❑ Large Heavy Gauge Plastic Bag

- Sample Container Labels
- Tape (e.g., strapping, box, etc.)
- Cushioning Materials (such as *Styrofoam*® or Bubble Wrap)
- Waterproof Pen

3.0 REFERENCES

The following sources were used in developing this guideline:

- EPA. RCRA Ground-Water Monitoring: Draft Technical Guidance. November 1992.
- EPA. SESD Operating Procedure – Packing, Marking, Labeling and Shipping of Environmental and Waste Samples. SESDPROC-209-R2. April 20, 2011.

PARSONS

GUIDELINE B-5: GUIDELINE FOR COMPLETING CHAIN-OF-CUSTODY FORMS

Prepared by:

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Houston, Texas 77027

Date: September 15, 2003 (URS Corporation)
Revision 1 : April 2006 (URS Corporation)
Revision 2 : August 2013

TABLE OF CONTENTS

FIGURES

APPENDICES

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1.0 PURPOSE

The purpose of this guideline (developed from previous guidelines; EPA 2008) is to establish a proper chain-of-custody (COC) standard for tracking samples from the field to the laboratory. A proper COC is necessary if there is any possibility that the analytical data or conclusions based upon the analytical data will be used in litigation (SW846, Chapter 9, Section 9.2.2.7). The persons entering information on the COC are responsible for ensuring the document can withstand scrutiny during litigation.

2.0 GENERAL INFORMATION

The COC is a legal document/record that must include: facility name, facility address, phone numbers (primary contact and laboratory), sample identification, preservation, dates and times of collection of samples, possession, analyses, and laboratory performing the analyses.

3.0 PROCEDURES

3.1 Chain-of-Custody (COC)

The policy is to use either Option A or Option B as stated below.

3.1.1 Option A (Pre-printed COC originated by Laboratory Personnel)

If the regulatory agency requires initiation of the COC at the laboratory, use Option A. See Figures 1 and 1A for examples of COC Option A.

Laboratory Personnel do the following:

- Originate the pre-printed COC by relinquishing the bottles with a signature. The pre-printed COC contains the following information: header information (e.g., facility name, facility address, facility supervisor, project name), event code, date code, location code, sample depth (top), sample type, volume, preservative (if applicable), quantity, bottle type, method and/or analyte.
- If the sample IDs are known at the time of bottle preparation, pre-print the event code, date code, and location code on the COC.
- If the sample IDs are not known at the time of bottle preparation, leave the sample ID blank.

Field Personnel do the following:

- If a sample is pre-printed on the COC but will never be collected:
  1. Cross out the sample on the COC.
  2. Date and initial next to the cross-out and give reason on the COC (e.g., well is dry).
- If an extra sample is collected that was not pre-printed on the laboratory relinquished COC, add this sample to a blank COC not the COC that was relinquished by Laboratory Personnel.

- If all of the samples listed on the laboratory relinquished COC cannot be collected in one day, use derived COC (see Section 5). (A way to avoid using derived COC is to have one well or boring location per COC).
- If a sample is moved from one cooler to another:
    1. Add the comment “Moved to COC Y” (where Y is the unique COC number located on the top right-hand of the COC) in the date and time field on COC X next to the sample being moved.
    2. Add the sample to COC Y.
    3. Add the comment “moved sample from COC X” (where X is the unique COC number located on the top right-hand of the COC) in the margin of the COC Y next to the sample that was moved.

3.1.2 Option B (Pre-printed / Blank COC Originated in the Field)

- Laboratory Personnel issue forms along with the bottles to be used as chains-of-custody. These forms can be pre-printed or left blank.
- Field Personnel do the following:
    1. Collect the samples, write the sample ID according to the naming convention as described in Appendix A, if not already present, on the COC.
    2. Write the date and time of sample collection on the COC.
    3. Enter the remaining information on the COC [i.e., sample type, volume, preservative (if applicable), quantity, bottle type, method and/or analyte (if not already pre-printed on the COC)].
    4. Once the samples are ready to be shipped to the laboratory and all of the aforementioned information has been entered for the samples collected, relinquish the samples to the laboratory with his/her signature, date, and time (see Figure 2 and 2A for examples of Option B).

4.0 SIGNATURES

4.1 Option A

If Laboratory Personnel initiate the COC:

1. Laboratory Personnel relinquish the bottles with a signature.
2. Project Manager designates Field Personnel.
3. Field Personnel receive the cooler(s) from the courier (e.g., Laboratory, overnight courier). At this time, Field Personnel sign the shipping paperwork. OR, if someone other than Field Personnel is designated by Project Manager to receive the bottles from Courier, that person signs the shipping paperwork upon receipt of the coolers.
4. Field Personnel:
    - Check contents of cooler against COC
    - Sign the COC in the “Received By” box

- Relinquish the samples to the laboratory once they have finished sampling. (Note: If more than one person is in the field sampling, the person receiving the bottles/samples must also relinquish the bottles/samples

5. Laboratory personnel:
   - Cross out the unused “Received By/Relinquished By” boxes prior to signing
   - Sign the COC upon receipt of the samples
6. Field Personnel file and keep the shippers (e.g., Federal Express) bill of lading **to** and **from** the site (if possible).

4.2 Option B

If Laboratory Personnel did not initiate the COC:

1. Field Personnel sign the COC upon completion of sampling in the Relinquished By box.
2. Laboratory Personnel sign the COC upon receipt of the samples and cross-out the unused “Received By/Relinquished By” boxes.
3. Field Personnel file and keep the shippers (e.g., Federal Express) bill of lading **from** the site (if possible).

5.0 DERIVED COCS

(Necessary to complete the record of custody when using COC Option A and all of the samples on the pre-printed COC cannot be collected on a single day).

- If the COC was originated by Laboratory Personnel with a relinquished signature and all of the samples listed on the COC cannot be collected and sent in one shipment, Field Personnel must use the Derived COCs. (One way to avoid the Derived COC is to list one well or boring location per COC).
- Field Personnel must write the sample IDs of the samples that were collected that day and are to be shipped to the laboratory on the Derived COC. It is important that Field Personnel:
  1. Transcribe all of the information pertaining to the sample (e.g., correct sample ID, parameters, preservative, etc.) on the Derived COC.
  2. Reference the Derived COC# on the Original COC in the “Date and Time” boxes of the sample that was transcribed onto the Derived COC.
  3. If the Derived COC doesn’t have a number, Field Personnel must assign a number. The assigned number may be the original COC number followed by a–1.
- The original COC remains in the field until all the samples listed on the COC have been collected.
- Field Personnel send the original COC with the last shipment of samples listed on the original COC (see Figure 3 and 3A for examples of “Derived COC”).

6.0 CROSS OUTS ON COC

- If corrections are made to the COC while in the field, Field Personnel must date and initial next to the item that was crossed out.
- If corrections are to be made to the COC after it has left the field, Analytical Data Quality Management (ADQM) personnel:
  1. Document the error (i.e., via e-mail).
  2. Send the e-mail to the person requesting the correction (if other than ADQM personnel) for verification.
- Once the requestor has reviewed the documentation, he/she sends an e-mail verifying the correction back to ADQM personnel.
- ADQM keeps the original with the file and sends a copy to Laboratory Personnel (and to the project manager if requested).

7.0 LOCATION OF COC WITH RESPECT TO COOLER

Laboratory Personnel:

1. Print the COC on carbon paper so that all parties handling the samples can maintain a copy in their files.
2. Place the original COC or form (which will become a COC once a signature has been added) inside the cooler when shipped to the field.

Field Personnel:

1. Place the original COC and laboratory copy in the cooler containing the samples listed on that COC.
2. Keep one carbon copy of the COC for their files.

8.0 BOTTLE LABELS

Field Personnel must make sure that the bottle label contains the full sample ID (see Appendix A), the preservative added, the number of bottles, the analyses, and whether or not the sample is filtered. The information on the bottle label must match the information on the COC.

9.0 DATE / TIME OF SAMPLE COLLECTION

Field Personnel must:

1. Write the date on COC as MM/DD/YY (e.g., 08/31/99).
2. Write the time on COC in 24 hour or military time (e.g. 1330). The time of collection is recorded as the time the sample was initially taken. A separate time of collection is not required for each parameter (e.g., time for volatiles, time for semivolatiles, etc.). The date and time of collection of the matrix spike and matrix spike duplicate samples are the same date and time as the original sample.

10.0 CUSTODY SEALS

- Laboratory Personnel include custody seals with each cooler shipment.
- Field Personnel:
  1. Pack the samples on ice in the cooler.
  2. Once the cooler is ready for shipment, tape the custody seals to the broad side of the cooler lid opposite the hinges in such a way that the seals will be broken if the cooler is opened.
  3. Sign and date the custody seals prior to shipment to Laboratory Personnel. If Field Personnel break the seals of the cooler prior to shipment (e.g., to re-ice the samples), Field Personnel must attach another set of seals to the cooler with the Field Personnel's signature and the date.
  4. If specified in the project Quality Assurance Project Plan (QAPP), attach custody seals to the bottles. Place the seal over the cap of the bottle and down both sides in such a way that, if the cap is unscrewed, the seal will be broken (see Appendix B for example custody seal).

11.0 COOLER NUMBERS

ADQM personnel instruct the laboratories to write cooler numbers on coolers and associated COC containing samples to be analyzed for volatiles (e.g., label attached with cooler number or cooler number written directly on cooler).

12.0 SPECIAL REQUESTS / CONCERNS

Field Personnel use comment section of COC for special requests/concerns such as analyze within 7 days, high photo-ionization detector (PID) reading, etc.

13.0 STEP-BY-STEP INSTRUCTIONS

All personnel can follow the step-by-step instructions on how to complete a COC (see Appendix C).

14.0 REFERENCES

EPA. December 2008. Chain of Custody Procedures for Samples and Data. http://www.epa.gov/air/oaqps/eog/coc/

GUIDELINE B-5 FIGURES

Figure 1 ← **Example of laboratory originated COC sent to the field**

Lancaster Laboratories

2425 New Holland Pike PO Box 12425 Lancaster, PA 17605-2425 **No. 123**

Job Number: 7035-504116-772000

Facility Name: DuPont Cape Fear	**Telephone Number:** 910-371-4409	**Method of Shipping:** Fed Ex	**Shipping Instructions:** Priority Overnight		
Facility Address: State Road 1426, Leland, NC 28451	**Comments:**				
Facility Supervisor: Bill Jones					
Process Producing Sample: Indicator GW					
Employee(s) Sampling:					
Other Employee(s) Handling:					

Sample Description	Date	Time	Sample Type	Bottle Volume (ml)	Preservative	Quantity	Bottle Type	8260B									
CAP-G-MW-30			WW	40	HCL	2	V	X									
		Laboratory relinquishes the bottles by signing and dating here															

Bottles Relinquished by Bob Adams	**Date/ Time** 03/22/01	10:00	**Bottles Received by**		**Date/ Time**		**Condition of samples upon arrival:**
Bottles Relinquished by	**Date/ Time**		**Bottles Received by**		**Date/ Time**		**Signature:**
Bottles Relinquished by	**Date/ Time**		**Bottles Received by**		**Date/ Time**		**Date:**
Bottles Relinquished by	**Date/ Time**		**Bottles Received by**		**Date/ Time**		**Temp of Samples on Arrival: _____C**

Figure 1A ← **Example of laboratory originated COC after completed in the field**

Lancaster Laboratories

2425 New Holland Pike PO Box 12425 Lancaster, PA 17605-2425 **No. 123**

Job Number: 7035-504116-772000

Facility Name: DuPont Cape Fear	**Telephone Number:** 910-371-4409	**Method of Shipping:** Fed Ex	**Shipping Instructions:** Priority Overnight
Facility Address: State Road 1426, Leland, NC 28451	**Comments:**		
Facility Supervisor: Bill Jones			
Process Producing Sample: Indicator GW			
Employee(s) Sampling: Joe Sample			
Other Employee(s) Handling: Dave White			

Sample Description	Date	Time	Sample Type	Bottle Volume (ml)	Preservative	Quantity	Bottle Type	8260B									
CAP-G-MW-30	03/22/01	1200	WW	40	HCL	2	V	X									

Laboratory personnel will accept receipt of the samples by signing and dating here.

Person who received the bottles must also relinquish the bottles by signing here

Laboratory relinquishes the bottles by signing and dating here. The point of contact receives the bottles by signing and dating here.

Bottles Relinquished by	Bob Adams	**Date/ Time** 03/21/01	10:00	**Bottles Received by**	Joe Smith	**Date/ Time** 03/22/01	900	**Condition of samples upon arrival:** Good
Bottles Relinquished by	Joe Smith	**Date/ Time** 03/22/01	1600	**Bottles Received by**	- ---------	**Date/ Time** -------	------	**Signature:** Bob Adams
Bottles Relinquished by	----------	**Date/ Time** ---------	---------	**Bottles Received by**	----------	**Date/ Time** ---------	-------	**Date:** 03/23/01
Bottles Relinquished by	---------- -	**Date/ Time** ---------	---------	**Bottles Received by**	Bob Adams	**Date/ Time** 03/23/01	930	**Temp of Samples on Arrival: __2_C**

Figure 2 ← Example of COC to be originated in the field

Lancaster Laboratories

2425 New Holland Pike PO Box 12425 Lancaster, PA 17605-2425 **No. 124**

Job Number:																		
Facility Name: DuPont Cape Fear		**Telephone Number:** 910-371-4409				**Method of Shipping:**						**Shipping Instructions:**						
Facility Address: State Road 1426, Leland, NC 28451		**Comments:**																
Facility Supervisor: Bill Jones																		
Process Producing Sample: Indicator GW																		
Employee(s) Sampling:																		
Other Employee(s) Handling:																		
Sample Description	**Date**	**Time**	**Sample Type**	**Bottle Volume (ml)**	**Preservative**	**Quantity**	**Bottle Type**	8260B										
CAP-G-MW-30			WW	40	HCL	2	V	X										
Bottles Relinquished by		**Date/ Time**			**Bottles Received by**				**Date/ Time**		**Condition of samples upon arrival:**							
Bottles Relinquished by		**Date/ Time**			**Bottles Received by**				**Date/ Time**		**Signature:**							
Bottles Relinquished by		**Date/ Time**			**Bottles Received by**				**Date/ Time**		**Date:**							
Bottles Relinquished by		**Date/ Time**			**Bottles Received by**				**Date/ Time**		**Temp of Samples on Arrival: _____C**							

Figure 2A ← Example of COC to be originated in the field once completed in the field

Lancaster Laboratories

2425 New Holland Pike PO Box 12425 Lancaster, PA 17605-2425

No. 124

Job Number: 7035-504116-772000

Facility Name:	DuPont Cape Fear	**Telephone Number:**	910-371-4409	**Method of Shipping:**	Federal Express
Facility Address:	State Road 1426, Leland, NC 28451	**Comments:**		**Shipping Instructions:**	Priority Overnight
Facility Supervisor:	Bill Jones				
Process Producing Sample:	Indicator GW				
Employee(s) Sampling:	Bob Adams				
Other Employee(s) Handling:	Dave White				

Sample Description	Date	Time	Sample Type	Bottle Volume (ml)	Preservative	Quantity	Bottle Type	8260B									
CAP-G-MW-30	03/22/01	1030	WW	40	HCL	2	V	X									

Field Personnel initiates the COC upon relinquishment of the samples by signing and dating here.

Laboratory personnel will accept receipt of the samples by signing and dating here.

Bottles Relinquished by	Bob Adams	**Date/ Time**	03/22/01	15:00	**Bottles Received by**	- ---------	**Date/ Time**	- ---------	- ------	**Condition of samples upon arrival:**	Good
Bottles Relinquished by	- ---------	**Date/ Time**	- ---------	- ---------	**Bottles Received by**	- ---------	**Date/ Time**	- ---------	- ------	**Signature:**	Joe Smith
Bottles Relinquished by	- ---------	**Date/ Time**	- ---------	- ---------	**Bottles Received by**	- ---------	**Date/ Time**	- ---------	- ------	**Date:**	03/23/01
Bottles Relinquished by	- ---------	**Date/ Time**	- ---------	- ---------	**Bottles Received by**	Joe Smith	**Date/ Time**	03/23/01	900	**Temp of Samples on Arrival: 3C**	

Figure 3

ORIGINAL COC ← Original COC

Lancaster Laboratories

2425 New Holland Pike PO Box 12425 Lancaster, PA 17605-2425

No. 123

Job Number: 7035-504116-772000

Facility Name: DuPont Cape Fea	**Telephone Number:** 910-371-4409	**Method of Shipping:** Fed Ex	**Shipping Instructions:** Priority Overnight
Facility Address: State Road 1426, Leland, NC 28451	**Comments:**		
Facility Supervisor: Bill Jones			
Process Producing Sample: Indicator GW			
Employee(s) Sampling: Bob Adams			
Other Employee(s) Handling:			

Sample Description	Date	Time	Sample Type	Bottle Volume (ml)	Preservative	Quantity	Bottle Type	8260B									
CAP-G-MW-30	See COC 123-1		WW	40	HCL	2	V	X		Copy all of the information wrt CAP-G-MW-30 onto derived COC							
CAP-G-MW-28			WW	40	HCL	2	V	X									
CAP-G-MW-28D			WW	40	HCL	2	V	X									
CAP-G-MW-29			WW	40	HCL	2	V	X									

Bottles Relinquished by	Joe Smith	**Date/ Time** 03/22/01	9:00	**Bottles Received by**		**Date/ Time**		**Condition of samples upon arrival:**
Bottles Relinquished by		**Date/ Time**		**Bottles Received by**		**Date/ Time**		**Signature:**
Bottles Relinquished by		**Date/ Time**		**Bottles Received by**		**Date/ Time**		**Date:**
Bottles Relinquished by		**Date/ Time**		**Bottles Received by**		**Date/ Time**		**Temp of Samples on Arrival: ______C**

Figure 3

DERIVED COC FROM ORIGINAL COC ← Derived COC

Lancaster Laboratories

2425 New Holland Pike PO Box 12425 Lancaster, PA 17605-2425

No. 123-1

Job Number: 7035-504116-772000

Facility Name: DuPont Cape Fea	**Telephone Number:** 910-371-4409	**Method of Shipping:** Fed Ex	**Shipping Instructions:** Priority Overnight															
Facility Address: State Road 1426, Leland, NC 28451	**Comments:**																	
Facility Supervisor: Bill Jones																		
Process Producing Sample: Indicator GW																		
Employee(s) Sampling: Bob Adams																		
Other Employee(s) Handling: Dave White																		

Number of derived COC to tie it back to the original COC.

Sample Description	Date	Time	Sample Type	Bottle Volume (ml)	Preservative	Quantity	Bottle Type	8260B										
CAP-G-MW-30	03/23/01	1000	WW	40	HCL	2	V	X										

Add all information wrt CAP-G-MW-30 from original COC.

Laboratory personnel will accept the samples by signing and dating here.

Field Personnel must relinquish the samples by signing and dating here.

Bottles Relinquished by	Bob Adams	**Date/ Time**	03/23/01	15:00	**Bottles Received by**			- ---------	**Date/ Time**	- ---------	- ---------	**Condition of samples upon arrival:**						Good
Bottles Relinquished by	- ---------	**Date/ Time**	- ---------	- ---------	**Bottles Received by**			- ---------	**Date/ Time**	- ---------	- ---------	**Signature:**			Joe Smith			
Bottles Relinquished by	- ---------	**Date/ Time**	- ---------	- ---------	**Bottles Received by**			- ---------	**Date/ Time**	- ---------	- ---------	**Date:**			03/24/01			
Bottles Relinquished by	- ---------	**Date/ Time**	- ---------	- ---------	**Bottles Received by**			Joe Smith	**Date/ Time**	03/24/01	930	**Temp of Samples on Arrival: 3 C**						

Figure 4
COC Exception Report Form

Job Name: _____ Site: _____
Form Initiated By/Date: _____ Date Samples Collected: _____
Responsible Party: _____

Nonconformance (check appropriate box):

Category I: Sample Collection

- ☐ 1. Sample Containers Broken in Field
- ☐ 2. Requested Measurements Not Performed
- ☐ 3. Sample Not Collected
- ☐ 4. Sample ID Incorrect

*Explanation*_____
_____

Category II: Sample Receiving

- ☐ 5. Holding Time Exceeded By_____
- ☐ 6. Test added by Client After Login (*specify*)
- ☐ 7. Sample Received Broken/Leaking
- ☐ 8. Sample Received in Improper Container
- ☐ 9. No Sample ID on Container
- ☐ 10. Sample ID Does Not Match Paperwork
- ☐ 11. Volatile Sample Received With Headspace
- ☐ 12. COC Not Completed
- ☐ 13. Sample Temperature Exceeds 4°C

Category III: Other

- ☐ 14. _____
- ☐ 15. _____

CORRECTIVE ACTION _____

Root Cause:

_____
_____
_____*Initials/Date*: _____

Corrective Action:

_____
_____
_____*Initials/Date*: _____

Action to Prevent Recurrence:

_____
_____
_____*Initials/Date:* _____

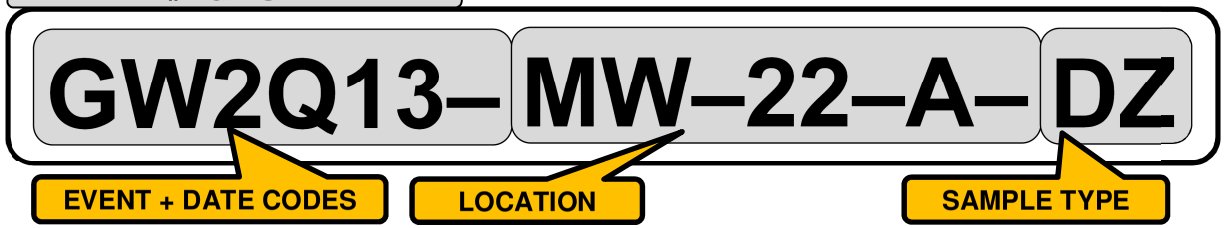
Manager Review:

Date Manager Aware of Problem: _____Manager's Initials: _____
Manager's Comments: _____
_____
_____
_____

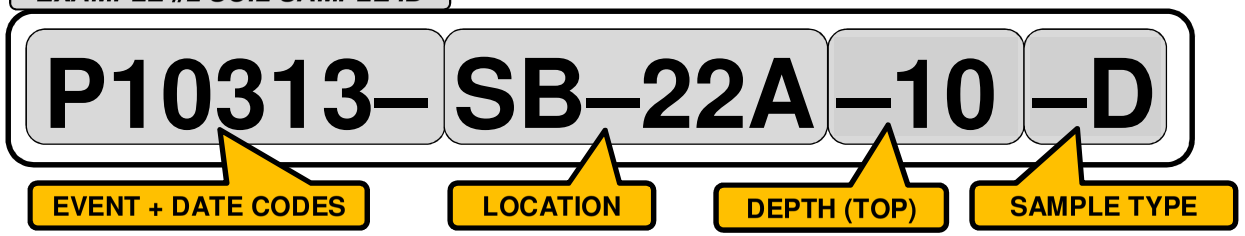
GUIDELINE B-5: APPENDIX A
SAMPLE IDENTIFIER CODING

DuPont Sample Numbering Scheme for Locus EIM™– EXAMPLES

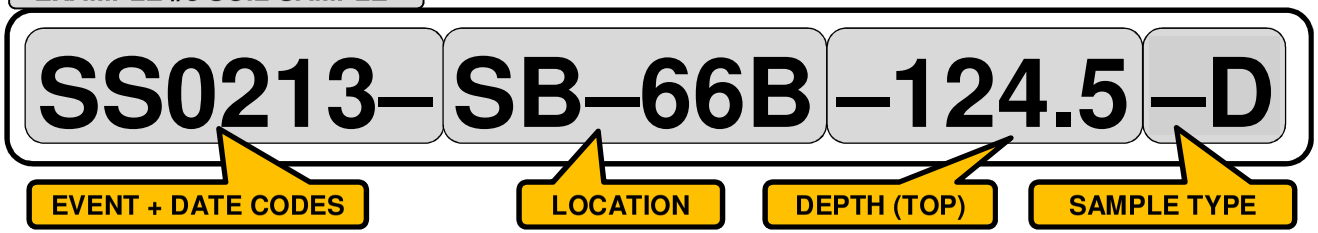
EXAMPLE #1 GW SAMPLE ID



EXAMPLE #2 SOIL SAMPLE ID



EXAMPLE #3 SOIL SAMPLE



EXAMPLE #4 TRIP BLANK

EXAMPLE #5 EQUIPMENT BLANK

EXAMPLE #6 FIELD BLANK

EVENT CODE (2 CHARS)	
CODE	***DESCRIPTION***
AA	AMBIENT AIR SAMPLING
. . .	. . .
GW	GW MONITORING PROJECT SAMPLING
. . .	. . .
P1	PHASE 1 INVESTIGATION SAMPLING
. . .	. . .
SS	SOIL SAMPLING
. . .	. . .
WT	WETLANDS SAMPLING
NOTE	**NOT ALL EVENT CODES ARE SHOWN**

DATE CODE (4 CHARS)	
CODE	***DESCRIPTION***
ANYY	ANNUAL EVENT
1HYY	1ST HALF
2HYY	2ND HALF
1QYY	1ST QUARTER
2QYY	2ND QUARTER
3QYY	3RD QUARTER
4QYY	4TH QUARTER
MMYY	MM=MONTH AND YY=YEAR

SAMPLE TYPE CODE	
CODE	***DESCRIPTION***
A	ACRYLINE/ACRYLONITRIL SAMPLE
C	COMPOSITE SAMPLE
D	DUPLICATE SAMPLE
Z	DIZZOLVED SAMPLE

DEPTH FORMAT

THE DEPTH PORTION OF THE SAMPLE IDENTIFIER INDICATES THE *TOP* DEPTH OF THE SAMPLE IN FEET.

1 DECIMAL DIGIT FOR DEPTHS ARE PERMITTED, I.E. “12.5” INDICATES A TOP DEPTH OF 12.5 FEET.

BLANK HANDLING

BLANK SAMPLES WILL BE IDENTIFIED WITH THE FOLLOWING SYSTEM:

TB-MMDDYY-X

WHERE **MMDDYY** ARE THE 2 DIGIT MONTH, DAY AND YEAR FOR THIS TRIP BLANK AND **X** IS A NUMBER STARTING WITH -2, -3, -4 ETC., USED TO IDENTIFY MULTIPLE TRIP BLANKS FROM THE SAME DAY. THE SUFFIX MAY BE ELIMINATED FOR SINGLE TRIP BLANK DAYS. THIS SYSTEM CAN ALSO BE USED SIMILARLY FOR EQUIPMENT BLANKS (EB) AND FIELD BLANKS (FB).

GUIDELINE B-5: APPENDIX B
EXAMPLE CUSTODY SEAL

APPENDIX B

Lancaster Laboratories
Where quality is a science.

029529
CUSTODY SEAL
2425 New Holland Pike, Lancasater, PA 17601-5994 (717) 656-2300

DATE:_____
SIGNATURE:_____

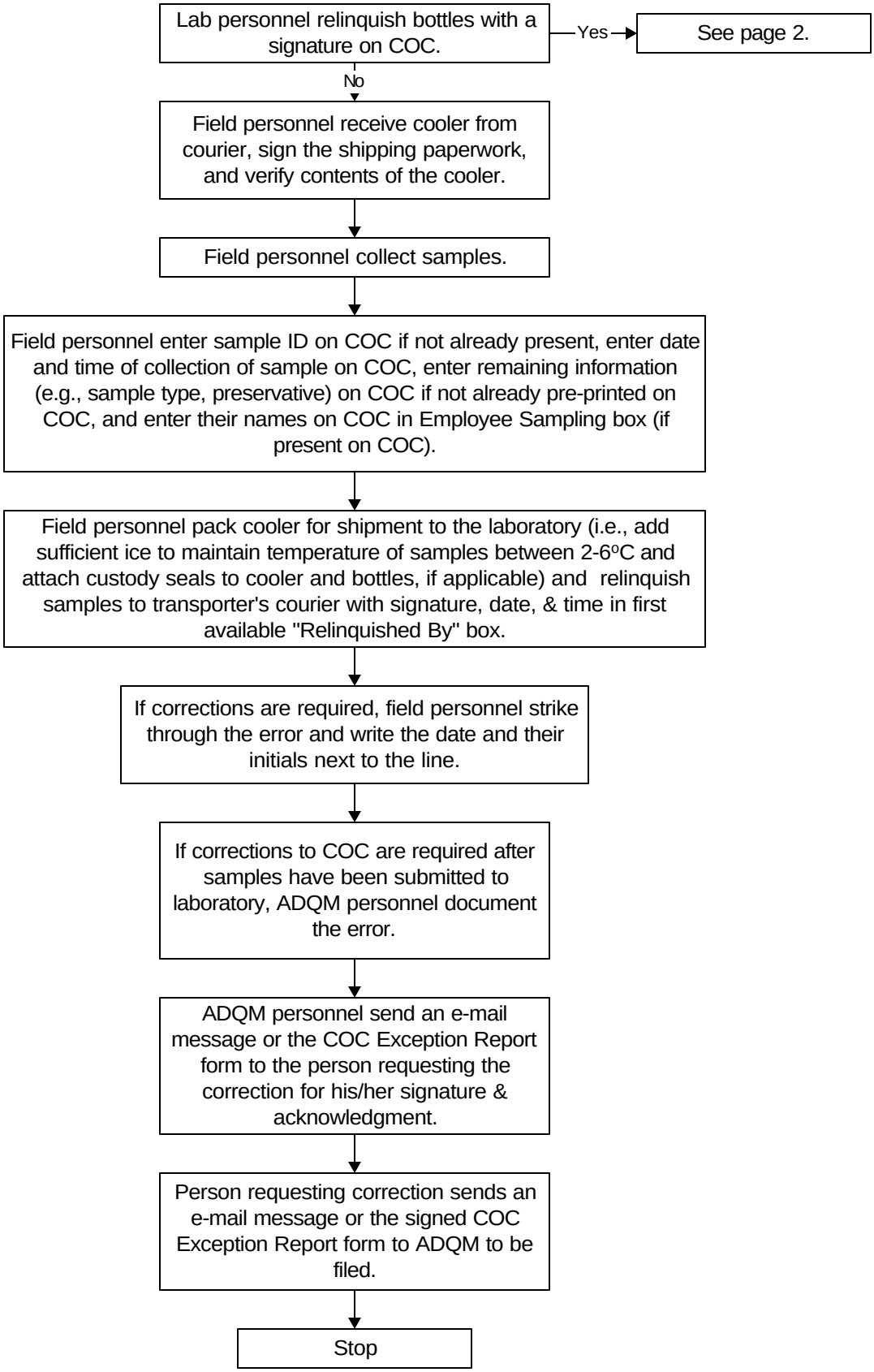
Custody Seal
DATE
SIGNATURE

Quanterra

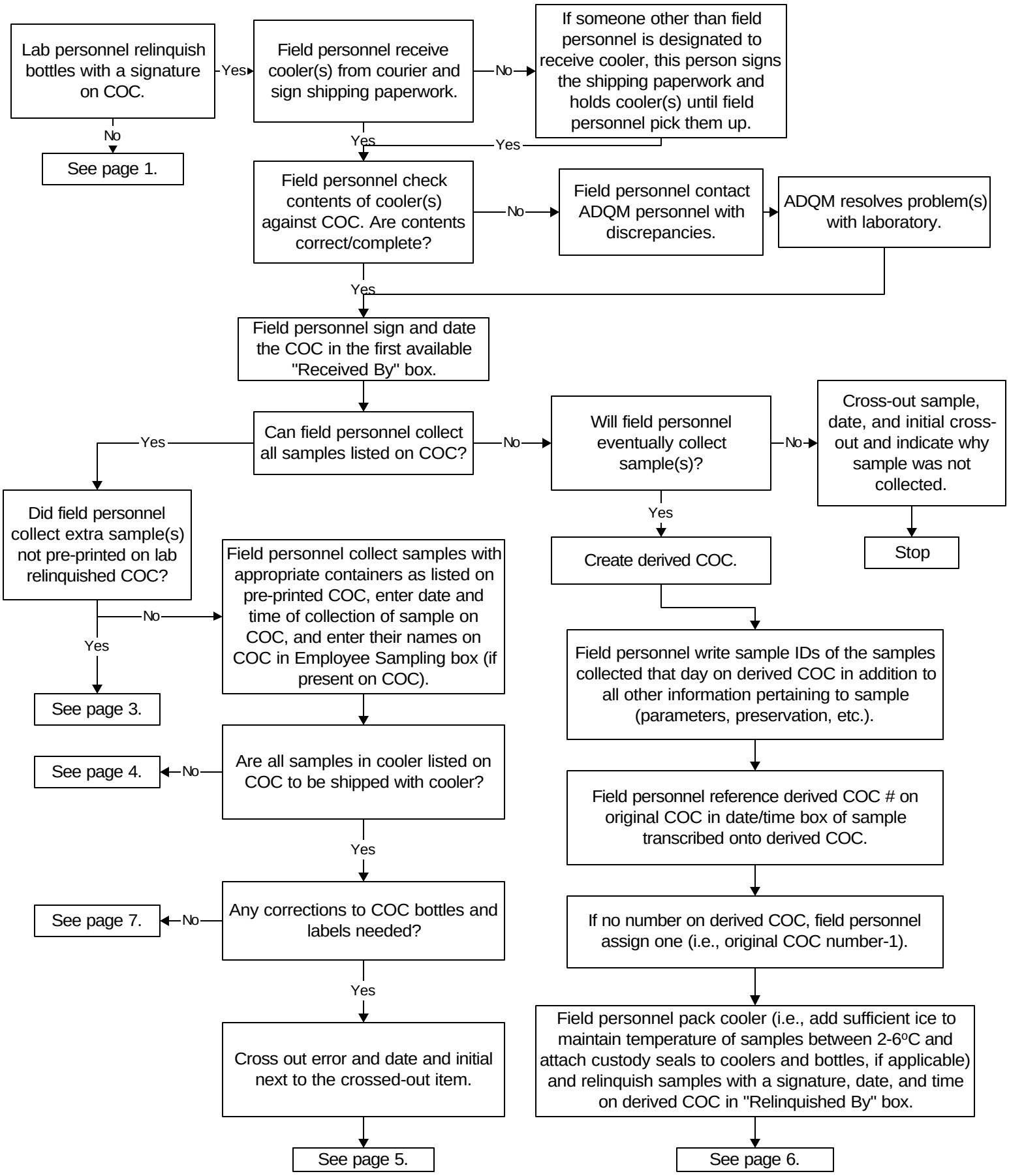
Nº 086949

GUIDELINE B-5: APPENDIX C
STEP-BY-STEP INSTRUCTIONS ON HOW TO COMPLETE A CHAIN-OF-CUSTODY

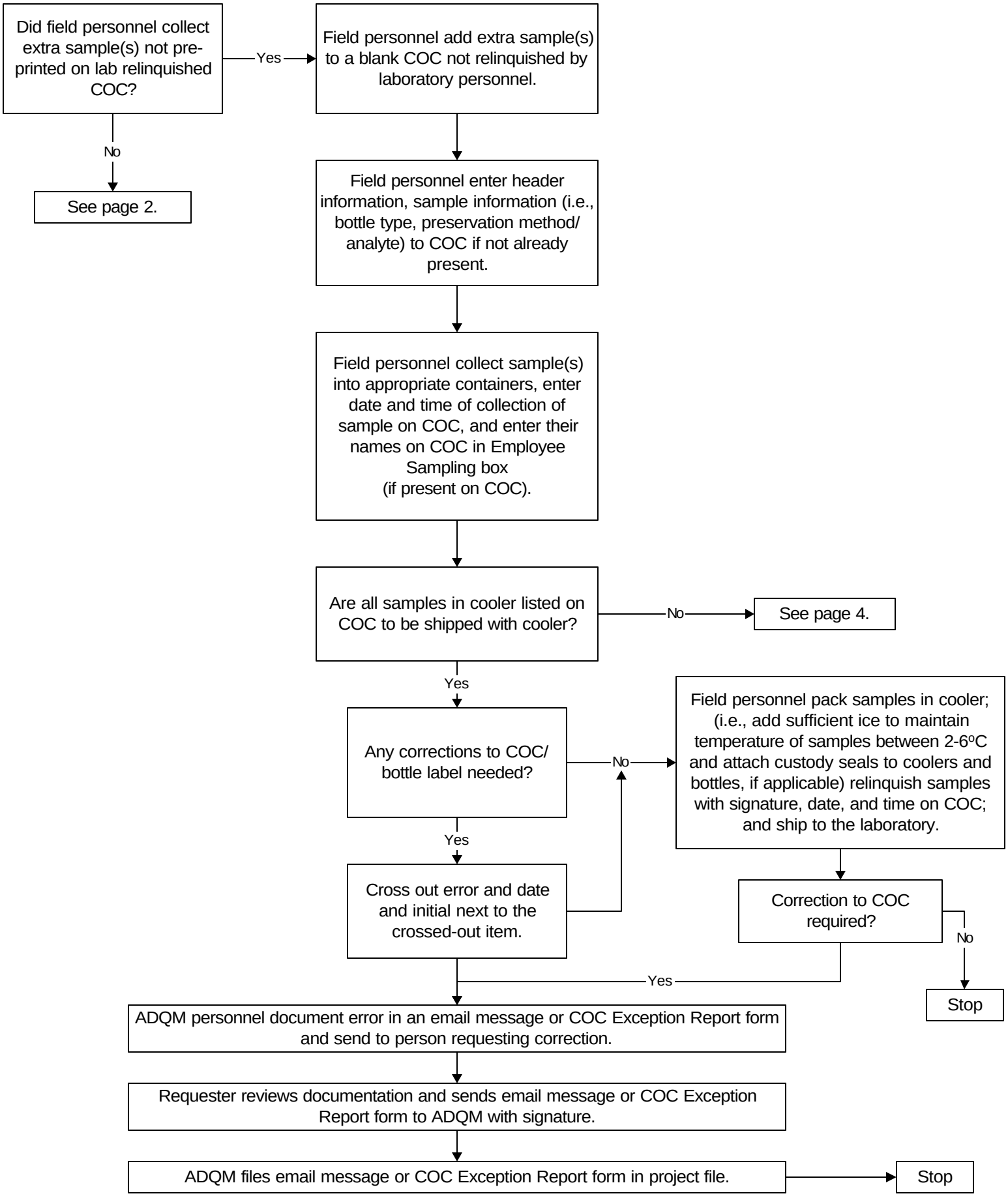
Appendix C
Chain of Custody Flow Diagram



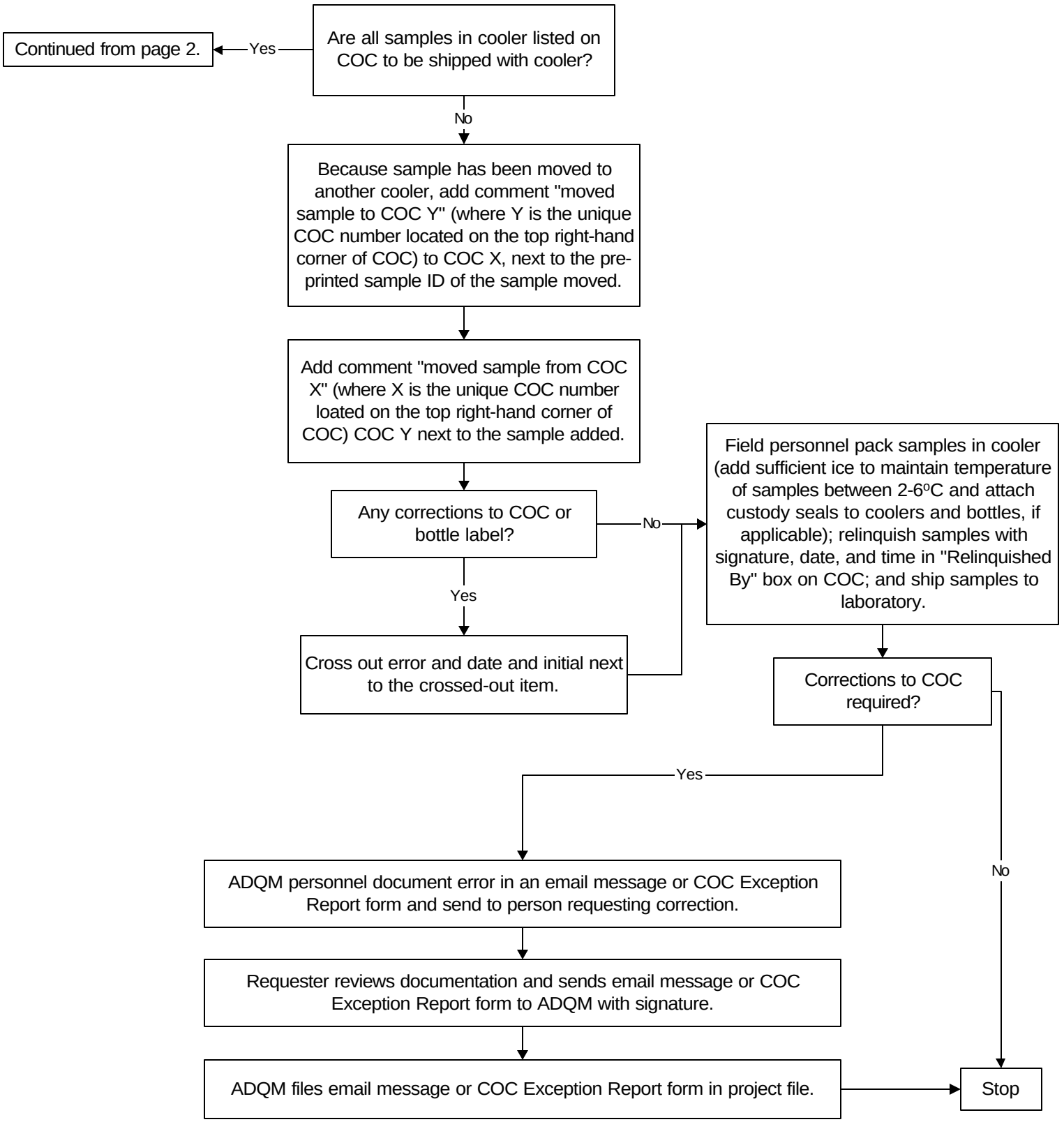
Chain of Custody Flow Diagram



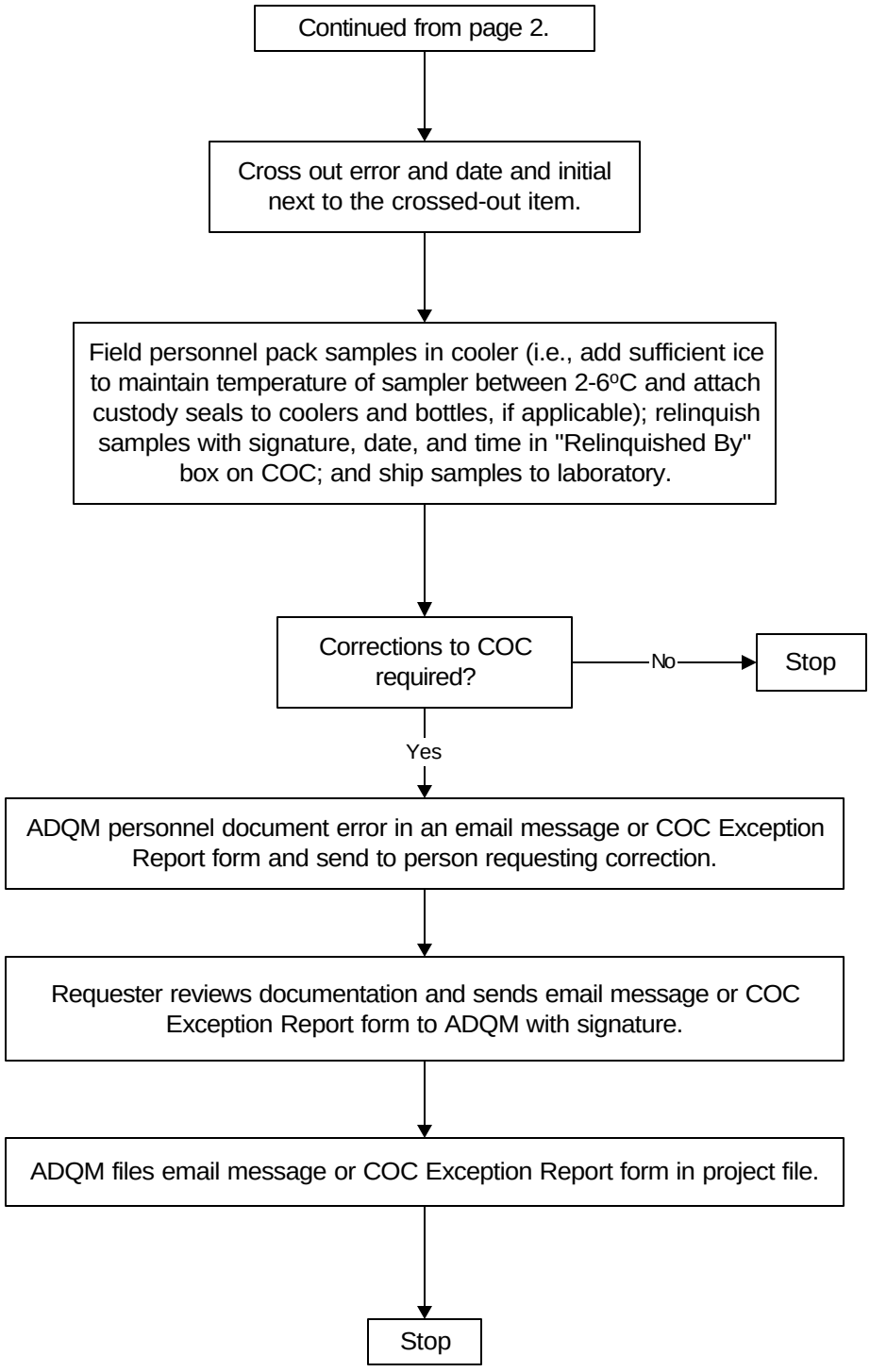
Chain of Custody Flow Diagram



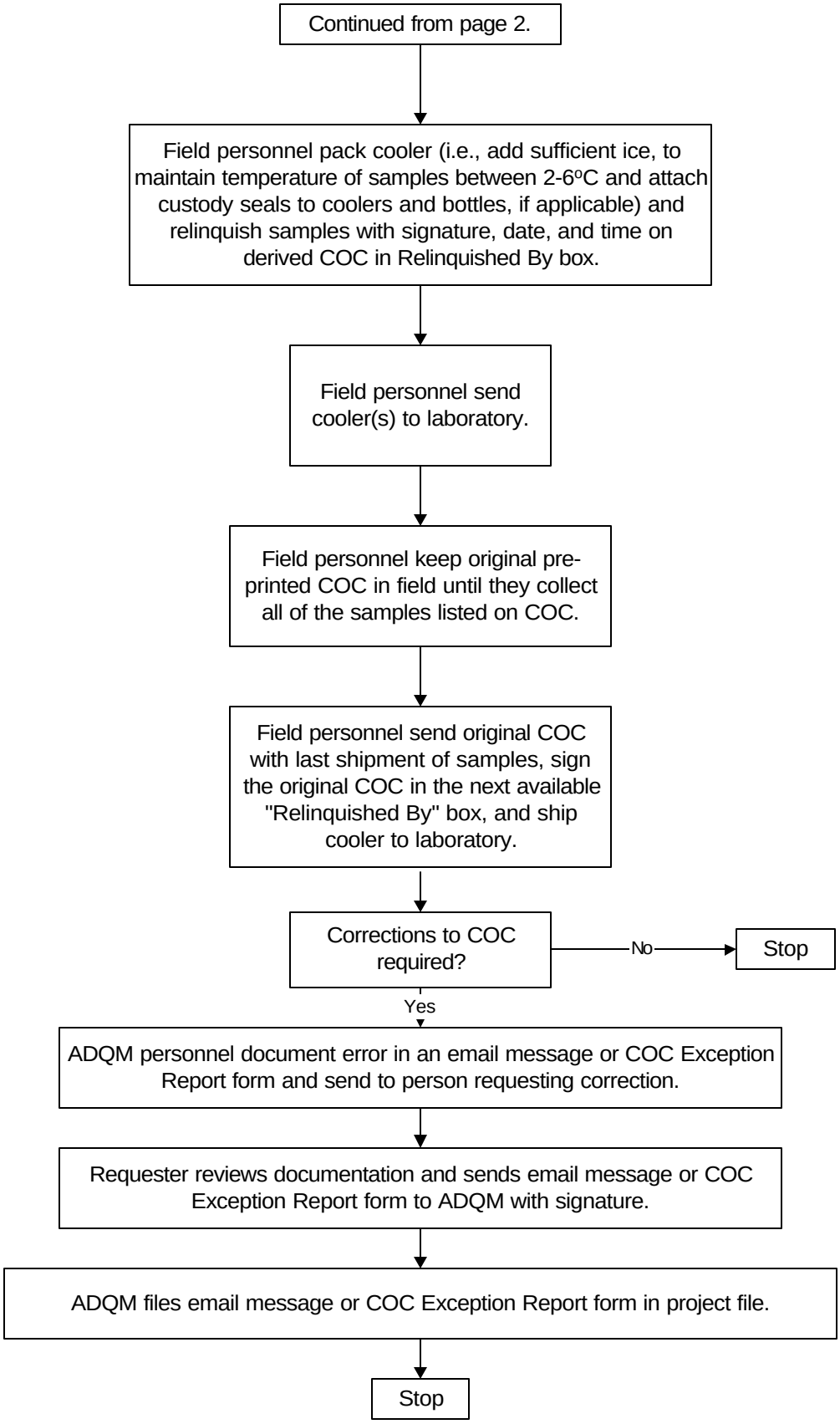
Chain of Custody Flow Diagram



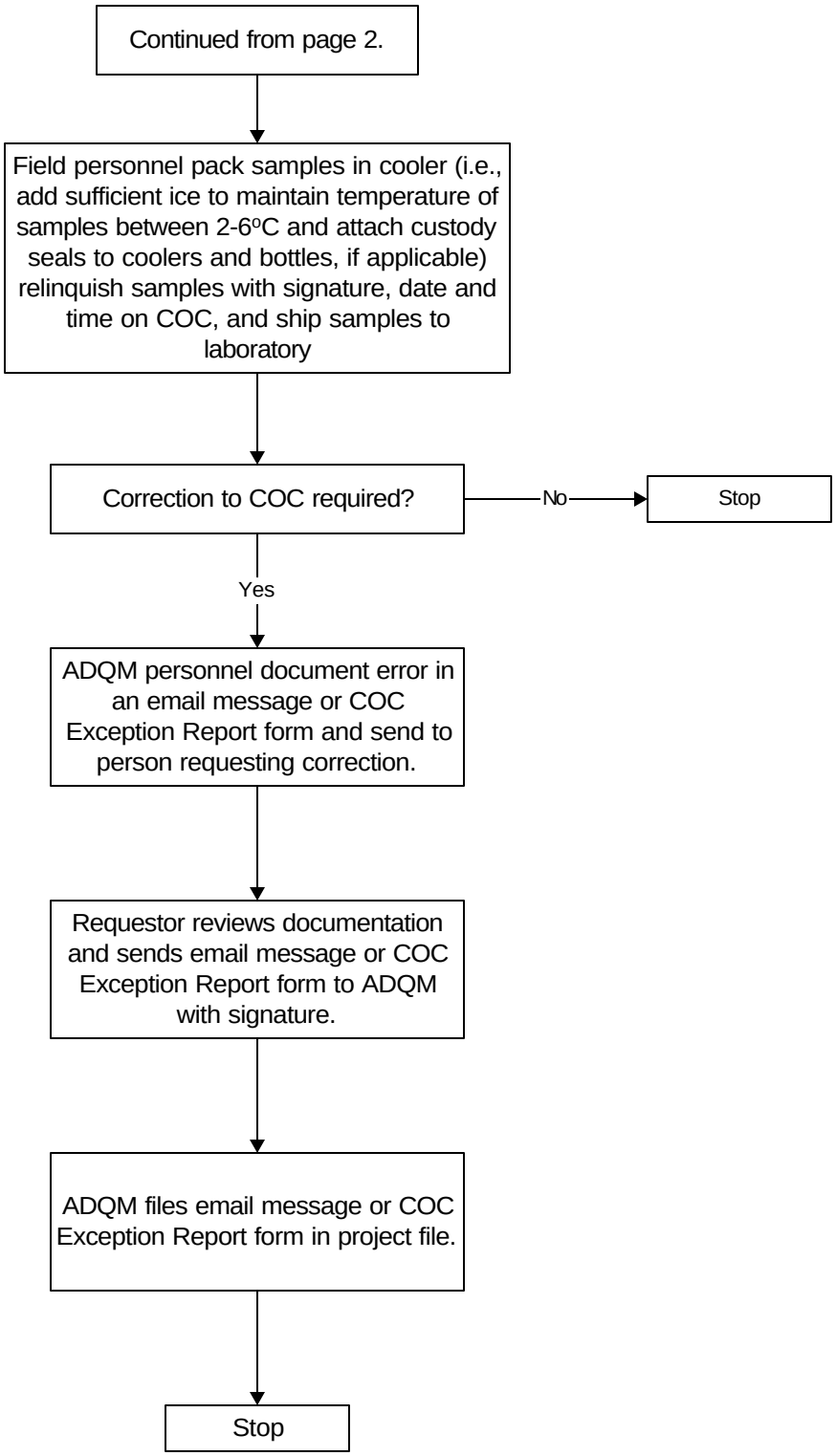
Chain of Custody Flow Diagram



Chain of Custody Flow Diagram



Chain of Custody Flow Diagram



APPENDIX C
GROUNDWATER MONITORING APPENDIX IX LIST

Appendix IX Constituents

Inorganics - Metals	**8141A Pesticides**	**8260B Volatiles (continued)**
Antimony	Disulfoton	Iodomethane
Arsenic	Famphur	Isobutyl alcohol
Barium	Ethyl Parathion	Methacrylonitrile
Beryllium	Methyl parathion	Methylene chloride
Cadmium	Phorate	Methyl methacrylate
Chromium	**8151A Herbicides**	4-Methyl-2-pentanone (MIBK)
Cobalt	2,4-D	Pentachloroethane
Copper	Dinoseb	Propionitrile
Lead	2,4,5-TP (Silvex)	Styrene
Mercury	2,4,5-T	1,1,1,2-Tetrachloroethane
Nickel	**8260B Volatiles (unpreserved)**	1,1,2,2-Tetrachloroethane
Selenium	Acrolein	Tetrachloroethene
Silver	Acrylonitrile	Toluene
Thallium	**8260B Volatiles (preserved)**	1,1,1-Trichloroethane
Tin	Acetone	1,1,2-Trichloroethane
Vanadium	Acetonitrile	Trichloroethene
Zinc	Benzene	Trichlorofluoromethane
Other Inorganics	Bromodichloromethane	1,2,3-Trichloropropane
Total Cyanide	Bromoform	Vinyl acetate
Total Sulfide	Bromomethane	Vinyl chloride
8081A Pesticides	2-Butanone (MEK)	Xylenes (total)
Aldrin	Carbon disulfide	**8270C Semivolatiles (preserved)**
alpha-BHC	Carbon tetrachloride	a,a-Dimethylphenethylamine
beta-BHC	Chlorobenzene	Acenaphthene
delta-BHC	Chloroprene	Acenaphthylene
gamma-BHC (Lindane)	Dibromochloromethane	Acetophenone
alpha-Chlordane	Dibromomethane	2-Acetylaminofluorene
gamma-Chlordane	Chloroethane	4-Aminobiphenyl
4,4'-DDD	Chloroform	Aniline
4,4'-DDE	Chloromethane	Anthracene
4,4'-DDT	Allyl chloride	Aramite
Dieldrin	1,2-Dibromo-3-chloropropane	Benz(a)anthracene
Endosulfan I	1,2-Dibromoethane (EDB)	Benzo(b)fluoranthene
Endosulfan II	1,2-Dichlorobenzene	Benzo(k)fluoranthene
Endosulfan sulfate	1,3-Dichlorobenzene	Benzo(ghi)perylene
Endrin	1,4-Dichlorobenzene	Benzo(a)pyrene
Endrin aldehyde	trans-1,4-Dichloro-2-butene	Benzyl alcohol
Heptachlor	Dichlorodifluoromethane	bis(2-Chloroethoxy)methane
Heptachlor epoxide	1,1-Dichloroethane	bis(2-Chloroethyl) ether
Methoxychlor	1,2-Dichloroethane	bis(2-Chloro-1-methylethyl) ether
Toxaphene	cis-1,2-Dichloroethene	bis(2-Ethylhexyl) phthalate
8082 PCBs	trans-1,2-Dichloroethene	4-Bromophenyl phenyl ether
Aroclor 1016	1,1-Dichloroethene	Butyl benzyl phthalate
Aroclor 1221	1,2-Dichloropropane	4-Chloroaniline
Aroclor 1232	cis-1,3-Dichloropropene	Chlorobenzilate
Aroclor 1242	trans-1,3-Dichloropropene	4-Chloro-3-methylphenol
Aroclor 1248	Ethylbenzene	2-Chloronaphthalene
Aroclor 1254	Ethyl methacrylate	2-Chlorophenol
Aroclor 1260	2-Hexanone	4-Chlorophenyl phenyl ether

Appendix IX Constituents

8270C Semivolatiles (continued)	8270C Semivolatiles (continued)
Chrysene	Naphthalene
Diallate	1,4-Naphthoquinone
Dibenzo(a,h)anthracene	1-Naphthylamine
Dibenzofuran	2-Naphthylamine
Di-n-butyl phthalate	2-Nitroaniline
3,3'-Dichlorobenzidine	3-Nitroaniline
2,4-Dichlorophenol	4-Nitroaniline
2,6-Dichlorophenol	Nitrobenzene
Diethyl phthalate	2-Nitrophenol
Dimethoate	4-Nitrophenol
p-Dimethylaminoazobenzene	4-Nitroquinoline-1-oxide
7,12-Dimethylbenz(a)anthracene	N-Nitrosodi-n-butylamine
3,3'-Dimethylbenzidine	N-Nitrosodiethylamine
2,4-Dimethylphenol	N-Nitrosodimethylamine
Dimethyl phthalate	N-Nitrosodiphenylamine
1,3-Dinitrobenzene	N-Nitrosodi-n-propylamine
4,6-Dinitro-2-methylphenol	N-Nitrosomethylethylamine
2,4-Dinitrophenol	N-Nitrosomorpholine
2,4-Dinitrotoluene	N-Nitrosopiperidine
2,6-Dinitrotoluene	N-Nitrosopyrrolidine
Di-n-octyl phthalate	5-Nitro-o-toluidine
1,4-Dioxane	Pentachlorobenzene
Diphenylamine	Pentachloronitrobenzene
Ethyl methanesulfonate	Pentachlorophenol
Fluoranthene	Phenacetin
Fluorene	Phenanthrene
Hexachlorobenzene	Phenol
Hexachlorobutadiene	p-Phenylene diamine
Hexachlorocyclopentadiene	2-Picoline
Hexachloroethane	Pronamide
Hexachloropropene	Pyrene
Indeno(1,2,3-cd)pyrene	Pyridine
Isodrin	Safrole
Isophorone	1,2,4,5-Tetrachlorobenzene
Isosafrole	2,3,4,6-Tetrachlorophenol
Kepone	Tetraethyldithiopyrophosphate
Methapyrilene	Thionazin
3-Methylcholanthrene	o-Toluidine
Methyl methanesulfonate	1,2,4-Trichlorobenzene
2-Methylnaphthalene	2,4,5-Trichlorophenol
2-Methylphenol	2,4,6-Trichlorophenol
3-Methylphenol	O,O,O-Triethyl phosphorothioate
4-Methylphenol	1,3,5-Trinitrobenzene

ATTACHMENT VIII.1.

WASTE MINIMIZATION OBJECTIVES

UNCONTROLLED COPY WHEN PRINTED

First Chemical Corporation

Management Policy

Status : Initiate	
Title : EV-04 WASTE MINIMIZATION AND DISPOSAL POLICY	
Category : Environmental	
Author : Kelvin Stork	Date : 4/16/15
Document Number : EV-4	Revision Number :

Statement of Purpose: Section 3005(h) and Section 3002(b) of the Resource Conservation and Recovery Act (RCRA), Public Law 94-580, establishes requirements for waste minimization. Various state laws also require waste minimization. The RCRA law and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) are unique in that they establish strict civil and criminal liability. Improper selection of vendors can result in significant future costs.

Application: This policy applies to the First Chemical Corporation (FCC) Pascagoula location. FCC personnel are encouraged to utilize the intent of this policy when selecting any toll processors, leased facilities, contract research programs, or third party vendors that will be used to manufacture products for sale by FCC.

POLICY

SECTION A

It shall be the policy of First Chemical Corporation to minimize the generation of solid or hazardous waste resulting from all operations.

A. For existing operations and new products, the following methods (listed in order of preference) should be considered to minimize wastes.

   1. Source Reduction

a. Modify the process where practicable to reduce or eliminate wastes.
b. Substitute raw materials where practicable to reduce or eliminate waste products.

2. Recycle

a. Where practicable, reuse wastes as raw materials for other processes.
b. Where practicable, re-blend returned and off-spec materials with current manufactured products providing finished product remains within specifications.

3. Reclaim

a. Where practicable, recover substances from wastes for sale to customers.
b. Where practicable, recover the energy value from the wastes.

4. Treatment

B. For residual wastes that must be disposed of off-site, the following methods shall be used to minimize the long term threat to human health and the environment. All facilities should be approved in accordance with Corporation procedures and guidelines:

1. Hazardous Wastes

a. Incineration at sites with valid RCRA permits with subsequent secure land disposal of residues at sites with valid RCRA permits.

b. Biological, physical or chemical treatment at sites with valid RCRA permits to reduce the volume and toxicity of wastes, with subsequent incineration or secure land disposal of residues at sites with valid RCRA permits.

c. Secure landfill disposal only in sites with valid RCRA permits.

d. Underground injection only in sites with valid RCRA permits.

e. Waste streams will be evaluated to determine if they can be used as a suitable and economically justifiable raw material substitute for another process. Successful candidates would beneficially reuse/recycle waste streams otherwise destined for disposal.

2. Solid and Other Non-Hazardous Wastes

a. Incineration at approved sites.
b. Biological, physical or chemical treatment at sites with valid Subtitle D permits to reduce the volume and toxicity of wastes, with subsequent incineration or secure land disposal of residues at sites with valid Subtitle

D permits.

c. Secure landfill disposal only in sites with valid Subtitle D permits.

d. Underground injection only in sites with valid permits.

e. Solid waste streams will be evaluated to determine their potential recycle/reuse value (i.e., paper, scrap metal, etc.). Economically sound and environmentally secure options will be considered and implemented in lieu of disposal.

C. For new products developed subsequent to the effective date of this policy, the following requirements apply:

1. The product development process should include steps to assess the quantity and toxicity of waste products. The evaluation process should include an evaluation of any process alternatives including different raw materials, additives or reaction conditions, processing or manufacturing steps which could produce the same new product, but generate less waste, i.e. SOURCE REDUCTION.

2. Once a new product process is chosen, the following methods should be considered, where practicable, to further minimize the wastes generated from manufacturing new products.

   a. Where practicable, reuse wastes as raw materials for other processes (RECYCLE).

   b. Where practicable, recover substances from wastes for sales to customers (RECLAIM).

   c. Where practicable, recover the energy value from the wastes (TREATMENT).

3. For residual wastes from new processes that must be disposed of off-site, one of the methods in 4 B. should be used to minimize the long term threat to human health and the environment.

4. Residuals from new processes will be included in the Waste Minimization Plan as it is reviewed and revised.

D. To implement this policy, a Waste Minimization Plan will be maintained onsite. Waste minimization should be reviewed annually to assess progress and the Waste Minimization Plan should be adjusted as necessary to comply with new laws, regulations and permit conditions.

SECTION B - SCOPE AND OBJECTIVES

I. Introduction

Waste minimization means the reduction, to the extent feasible, of any solid or hazardous waste that is generated and subsequently treated, stored, or disposed. FCC's waste minimization techniques focus on source reduction or recycling activities that reduce either the volume or the toxicity of solid and hazardous waste generated.

SECTION C - ANALYSIS OF WASTE STREAMS AND IDENTIFICATION OF OPPORTUNITIES TO ELIMINATE WASTE GENERATION

FCC Process Owners and Engineers are responsible for promoting potential waste minimization opportunities and ideas. Team members will serve as a contact for identifying waste minimization opportunities, particularly in their area of responsibility. The team consists of individuals from various departments to ensure comprehensive visibility and input.

Where appropriate, the Process Owners and Engineers will consider the feasibility of immediate implementation of waste minimization ideas into standard procedures. Many ideas, however, will require a more thorough assessment and evaluation prior to implementation. All employees onsite are encouraged and able to summit potential projects for consideration.

Section 1003 of RCRA states that whenever feasible, the generation of hazardous waste is to be reduced or eliminated as expeditiously as possible. Furthermore, the Pollution Prevention Act of 1990 stated that it is "to be the national policy of the United States that pollution should be prevented at the source whenever feasible" and, when not feasible, waste should be recycled, treated or disposed of -- in that order of preference. These requirements have also been incorporated into Mississippi law through the Mississippi Multimedia Pollution Prevention Act of 1990 (Chapter 31 of Title 49 of the MS Code of 1972).

SECTION D - EMPLOYEE AWARENESS AND TRAINING PROGRAMS

1. The annual training events for employees required by a variety of regulatory programs are used as a vehicle for presenting current trends in waste minimization.

2. Where feasible, Process Owners and Engineers are encouraged to attend seminars and professional affiliation events that include waste minimization topics.

3. Technical and managerial personnel are encouraged to participate in trade organizations. These organizations typically endorse new technologies that are more resource efficient.

4. FCC encourages and promotes programs which focuses on reducing costs, improving efficiency, improving reliability and/or improving compliance. These programs require each project to identify if it has a waste minimization component. The emphasis on identification of waste minimization opportunities raises awareness of importance of waste minimization and will allow FCC to track projects that have a waste minimization component.

5. FCC utilizes a new computer-based training program for site wide training. This training mechanism improves FCC's ability to heighten awareness of waste minimization requirements and importance.

SECTION E - ESTABLISHMENT OF PERFORMANCE GOALS

The Process Owners and Engineers will meet as needed to discuss and evaluate waste minimization opportunities.

In general, waste reduction efficiency will be measured by applying a ratio of pounds of product produced to the pounds of waste generated. Due to the nature of batch operations, product specific ratios will not be used since this would not be practical for short campaign manufacturing operations. Therefore, an overall production to waste generation ratio will be applied taking into account the total quantity of products produced and the total amount of waste materials generated.

UPDATED	REVISION NO	MODIFICATIONS
4/16/2015	2	Updated policy

ATTACHMENT IX.1.

MASTER EQUIPMENT LIST – RCRA BB

Area	Subarea	Tag id	Equipment	Size	Location	Process	State	Method
FCC	RCRA BB	00034.00	VLV	2	HYDR #6 (	TOLUENE	L	MONIT
FCC	RCRA BB	00034.10	FLG	2	GND FLR (	TOLUENE	L	MONIT
FCC	RCRA BB	00034.20	FLG	2	HYDR #6 (	TOLUENE	L	MONIT
FCC	RCRA BB	00034.40	FLG	2	HYDR #6 (	TOLUENE	L	MONIT
FCC	RCRA BB	00034.41	VLV	2	HYDR #6 (	TOLUENE	L	MONIT
FCC	RCRA BB	00034.42	FLG	2	HYDR #6 (	TOLUENE	L	MONIT
FCC	RCRA BB	00034.50	VLV	2	HYDR #6 (	TOLUENE	L	MONIT
FCC	RCRA BB	00034.51	FLG	2	HYDR #6 (	TOLUENE	L	MONIT
FCC	RCRA BB	00034.60	CKV	2	#6 GND FL	TOLUENE	L	MONIT
FCC	RCRA BB	00034.70	VLV	2	#6 GND FL	TOLUENE	L	MONIT
FCC	RCRA BB	00034.71	FLG	2	#6 GND FL	TOLUENE	L	MONIT
FCC	RCRA BB	00034.72	FLG	2	#6 GND FL	TOLUENE	L	MONIT
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FCC	RCRA BB	00513.10	SCR	0.75	HYDR #6 \	TOLUENE	V	MONIT
FCC	RCRA BB	00513.20	OEL	0.75	HYDR #6 \	TOLUENE	V	MONIT
FCC	RCRA BB	00516.00	VLV	2	HYDR #6 \	TOLUENE	V	MONIT
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FCC	RCRA BB	00516.31	FLG	2	HYDR #6 \	TOLUENE	V	MONIT
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FCC	RCRA BB	00560.00	VLV	0.75	#6 UNIT TI	TOLUENE	V	MONIT
FCC	RCRA BB	00560.10	CON	0.75	#6 UNIT TI	TOLUENE	V	MONIT
FCC	RCRA BB	00560.20	CON	0.75	#6 UNIT TI	TOLUENE	V	MONIT
FCC	RCRA BB	00560.30	FLG	8	#6 UNIT TI	TOLUENE	V	MONIT
FCC	RCRA BB	00561.00	PRV	2	#6 UNIT TI	TOLUENE	V	MONIT
FCC	RCRA BB	00561.10	FLG	4	#6 UNIT TI	TOLUENE	V	MONIT
FCC	RCRA BB	00562.00	FLG	2	#6 UNIT TI	TOLUENE	V	MONIT
FCC	RCRA BB	00563.00	FLG	4	#6 UNIT TI	TOLUENE	V	MONIT
FCC	RCRA BB	00564.00	AGI	0	#6 UNIT TI	TOLUENE	V	MONIT
FCC	RCRA BB	00565.00	FLG	2	#6 UNIT TI	TOLUENE	L	MONIT
FCC	RCRA BB	00566.00	FLG	1	#6 UNIT TI	TOLUENE	L	MONIT
FCC	RCRA BB	00567.00	VLV	2	#6 UNIT TI	TOLUENE	L	MONIT
FCC	RCRA BB	00567.10	FLG	2	#6 UNIT TI	TOLUENE	L	MONIT
FCC	RCRA BB	00567.20	FLG	2	#6 UNIT TI	TOLUENE	L	MONIT
FCC	RCRA BB	00568.00	VLV	2	#6 UNIT TI	TOLUENE	L	MONIT
FCC	RCRA BB	00568.10	FLG	2	#6 UNIT TI	TOLUENE	L	MONIT
FCC	RCRA BB	00569.00	VLV	0.75	#6 UNIT TI	TOLUENE	L	MONIT
FCC	RCRA BB	00569.01	SCR	0.75	#6 UNIT TI	TOLUENE	L	MONIT
FCC	RCRA BB	00569.02	SCR	0.75	#6 UNIT TI	TOLUENE	L	MONIT
FCC	RCRA BB	00569.10	OEL	0.75	#6 UNIT TI	TOLUENE	L	MONIT
FCC	RCRA BB	00570.00	VLV	2	#6 UNIT TI	TOLUENE	L	MONIT
FCC	RCRA BB	00570.10	FLG	2	#6 UNIT TI	TOLUENE	L	MONIT
FCC	RCRA BB	00570.20	FLG	2	#6 UNIT TI	TOLUENE	L	MONIT
FCC	RCRA BB	00675.20	VLV	2	ANIL #2 GI	ANILINE 1(	H	MONIT
FCC	RCRA BB	00678.10	FLG	1	GND FLR I	ANILINE 1(	H	MONIT
FCC	RCRA BB	00678.20	FLG	1	GND FLR I	ANILINE 1(	H	MONIT
FCC	RCRA BB	01401.00	VLV	2	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01401.10	SCR	2	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01401.20	CON	2	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01401.30	SCR	2	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01403.00	FLG	1	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01404.00	VLV	0.5	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01404.10	SCR	0.5	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01404.20	SCR	0.5	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01404.30	VLV	1	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01404.31	FLG	1	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01404.32	FLG	1	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01405.00	VLV	0.5	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01405.10	SCR	0.5	E SIDE OF	ANILINE 1(	H	MONIT

FCC	RCRA BB	01405.20	CON	0.5	E SIDE OF ANILINE 1(	H	MONIT
FCC	RCRA BB	01406.00	CON	0.5	E SIDE OF ANILINE 1(	H	MONIT
FCC	RCRA BB	01406.10	SCR	0.5	E SIDE OF ANILINE 1(	H	MONIT
FCC	RCRA BB	01406.20	SCR	0.5	E SIDE OF ANILINE 1(	H	MONIT
FCC	RCRA BB	01407.00	VLV	0.5	E SIDE OF ANILINE 1(	H	MONIT
FCC	RCRA BB	01407.10	SCR	0.5	E SIDE OF ANILINE 1(	H	MONIT
FCC	RCRA BB	01407.20	OEL	0.5	E SIDE OF ANILINE 1(	H	MONIT
FCC	RCRA BB	01408.00	VLV	0.75	E SIDE OF ANILINE 1(	H	MONIT
FCC	RCRA BB	01409.00	FLG	1	E SIDE OF ANILINE 1(	H	MONIT
FCC	RCRA BB	01411.00	VLV	2	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01411.10	SCR	2	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01411.20	CON	2	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01411.30	SCR	2	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01412.00	FLG	0.5	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01412.20	VLV	1	E SIDE OF ANILINE 1(	H	MONIT
FCC	RCRA BB	01412.21	FLG	1	E SIDE OF ANILINE 1(	H	MONIT
FCC	RCRA BB	01412.22	FLG	1	E SIDE OF ANILINE 1(	H	MONIT
FCC	RCRA BB	01413.00	FLG	0.75	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01414.00	VLV	0.5	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01414.10	SCR	0.5	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01414.20	SCR	0.5	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01415.00	VLV	0.5	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01415.10	SCR	0.5	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01415.20	CON	0.5	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01416.00	CON	0.5	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01416.10	SCR	0.5	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01416.20	SCR	0.5	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01417.00	VLV	0.5	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01417.10	SCR	0.5	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01417.20	OEL	0.5	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01418.00	VLV	0.75	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01419.00	FLG	1	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01422.00	VLV	0.5	E SIDE OF ANILINE 1(	H	MONIT
FCC	RCRA BB	01422.10	SCR	0.5	E SIDE OF ANILINE 1(	H	MONIT
FCC	RCRA BB	01422.20	CON	0.5	E SIDE OF ANILINE 1(	H	MONIT
FCC	RCRA BB	01424.00	FLG	0.5	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01425.00	VLV	0.5	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01425.10	SCR	0.5	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01425.20	SCR	0.5	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01425.31	FLG	1	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01425.33	VLV	0.5	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01425.34	SCR	0.5	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01425.35	OEL	0.5	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01425.40	FLG	3	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01425.41	FLG	1	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01425.60	VLV	0.5	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01425.61	SCR	0.5	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01425.62	CON	0.5	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01425.63	OEL	0.5	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01425.70	VLV	0.5	E SIDE OF PICRIC AC	L	MONIT
FCC	RCRA BB	01425.71	SCR	0.5	E SIDE OF PICRIC AC	L	MONIT

FCC	RCRA BB	01425.72	OEL	0.5	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01426.00	VLV	1	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01426.10	FLG	1	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01426.20	FLG	1	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01426.30	VLV	1	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01426.31	FLG	1	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01427.00	VLV	1	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01427.10	FLG	1	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01427.40	VLV	0.5	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01427.41	FLG	0.5	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01428.00	VLV	1	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01428.10	FLG	1	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01428.20	FLG	1	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01429.00	VLV	0.75	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01429.01	SCR	0.75	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01429.40	VLV	0.75	E SIDE HY	PICRIC AC	L MONIT
FCC	RCRA BB	01429.41	SCR	0.75	E SIDE HY	PICRIC AC	L MONIT
FCC	RCRA BB	01429.42	OEL	0.75	E SIDE HY	PICRIC AC	L MONIT
FCC	RCRA BB	01431.00	VLV	1	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01431.10	SCR	1	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01431.20	SCR	1	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01431.30	VLV	1	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01431.40	FLG	1	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01431.50	FLG	1	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01432.00	VLV	0.75	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01432.10	SCR	0.5	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01432.20	FLG	0.5	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01432.30	FLG	0.5	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01432.40	VLV	1	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01435.00	VLV	1	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01435.10	FLG	1	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01435.30	SCR	1	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01435.40	SCR	1	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01435.50	VLV	1	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01435.51	SCR	0.5	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01435.52	SCR	0.5	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01435.53	CON	0.5	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01435.54	OEL	0.5	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01435.60	VLV	1	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01435.61	SCR	1	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01435.62	SCR	1	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01436.00	VLV	1	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01436.10	FLG	1	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01436.20	FLG	1	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01436.30	VLV	1	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01437.00	VLV	1	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01437.10	FLG	1	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01437.20	FLG	1	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01438.00	VLV	1	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01438.10	FLG	1	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01438.20	FLG	1	E SIDE OF	ANILINE 1(	H MONIT

FCC	RCRA BB	01439.00	FLG	1	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01439.10	FLG	1	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01439.20	SCR	0.5	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01439.30	FLG	1	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01439.40	SCR	1	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01439.50	CON	0.5	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01439.51	SCR	0.5	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01439.60	SCR	0.5	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01439.61	CON	0.5	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01439.62	SCR	0.5	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01439.63	CON	0.5	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01440.00	VLV	0.5	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01440.10	SCR	0.5	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01440.20	CON	0.5	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01440.30	SCR	0.5	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01440.40	VLV	0.5	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01440.41	SCR	0.5	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01440.42	OEL	0.5	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01441.00	VLV	1	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01441.10	SCR	1	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01441.20	SCR	1	E SIDE OF	ANILINE 1(	H MONIT
FCC	RCRA BB	01442.00	VLV	1	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01442.10	FLG	1	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01442.20	FLG	1	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01443.00	FLG	1	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01443.10	VLV	1	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01444.00	VLV	1	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01444.10	FLG	1	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01444.20	FLG	1	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01444.30	FLG	1	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01445.00	VLV	1	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01445.10	SCR	1	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01445.20	OEL	1	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01446.00	VLV	1	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01446.10	FLG	1	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01446.20	FLG	1	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01448.00	VLV	1	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01448.01	FLG	1	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01449.00	VLV	0.75	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01449.10	SCR	0.75	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01449.20	OEL	0.75	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01449.40	VLV	0.5	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01450.00	VLV	1.5	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01450.10	FLG	1.5	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01450.20	FLG	1.5	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01450.40	VLV	0.5	E SIDE OF	PICRIC AC	L MONIT
FCC	RCRA BB	01452.00	VLV	1	E SIDE OF	TOLUENE	L MONIT
FCC	RCRA BB	01452.10	FLG	1	E SIDE OF	TOLUENE	L MONIT
FCC	RCRA BB	01452.20	FLG	1	E SIDE OF	TOLUENE	L MONIT
FCC	RCRA BB	01453.00	VLV	0.75	E SIDE OF	TOLUENE	L MONIT
FCC	RCRA BB	01453.01	OEL	0.75	E SIDE OF	TOLUENE	L MONIT

FCC	RCRA BB	01453.10	SCR	0.75	E SIDE OF	TOLUENE	L	MONIT
FCC	RCRA BB	01453.11	CON	0.75	E SIDE OF	TOLUENE	L	MONIT
FCC	RCRA BB	01453.12	SCR	0.75	E SIDE OF	TOLUENE	L	MONIT
FCC	RCRA BB	01453.13	SCR	0.75	E SIDE OF	TOLUENE	L	MONIT
FCC	RCRA BB	01453.14	SCR	0.75	E SIDE OF	TOLUENE	L	MONIT
FCC	RCRA BB	01453.40	VLV	0.75	E SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01454.00	VLV	1	E SIDE OF	TOLUENE	L	MONIT
FCC	RCRA BB	01454.10	FLG	1	E SIDE OF	TOLUENE	L	MONIT
FCC	RCRA BB	01454.20	FLG	1	E SIDE OF	TOLUENE	L	MONIT
FCC	RCRA BB	01455.00	VLV	1.5	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01455.01	FLG	1.5	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01455.10	FLG	1.5	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01455.20	VLV	0.5	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01455.21	SCR	0.5	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01455.22	OEL	0.5	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01456.30	VLV	0.5	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01456.40	FLG	1	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01457.00	VLV	1	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01457.01	FLG	1	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01457.10	FLG	1	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01458.00	VLV	1	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01458.10	FLG	1	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01458.20	FLG	1	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01459.00	VLV	0.5	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01459.10	SCR	0.5	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01459.20	SCR	0.5	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01459.21	SCR	0.5	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01461.00	VLV	0.5	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01461.30	SCR	0.5	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01461.40	SCR	0.5	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01461.50	CON	0.5	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01461.51	SCR	0.5	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01465.00	SCR	0.5	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01465.10	FLG	1	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01465.11	FLG	1	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01465.20	VLV	0.5	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01465.30	FLG	0.5	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01465.40	FLG	0.5	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01470.00	VLV	1.5	35 FT SW	ANILINE 1(	H	MONIT
FCC	RCRA BB	01470.10	FLG	1.5	35 FT SW	ANILINE 1(	H	MONIT
FCC	RCRA BB	01471.00	VLV	1.5	35 FT SW	PICRIC AC	L	MONIT
FCC	RCRA BB	01471.10	FLG	1.5	35 FT SW	PICRIC AC	L	MONIT
FCC	RCRA BB	01471.20	CON	1.5	35 FT SW	PICRIC AC	L	MONIT
FCC	RCRA BB	01471.30	FLG	0.75	35 FT SW	PICRIC AC	L	MONIT
FCC	RCRA BB	01472.00	VLV	0.75	FAR S ENI	ANILINE 1(	H	MONIT
FCC	RCRA BB	01472.01	SCR	0.75	FAR S ENI	ANILINE 1(	H	MONIT
FCC	RCRA BB	01473.00	VLV	1.5	20' N OF #	PICRIC AC	L	MONIT
FCC	RCRA BB	01473.01	FLG	1.5	20' N OF #	PICRIC AC	L	MONIT
FCC	RCRA BB	01473.02	FLG	2	20' N OF #	PICRIC AC	L	MONIT
FCC	RCRA BB	01473.03	VLV	2	20' N OF #	PICRIC AC	L	MONIT
FCC	RCRA BB	01473.04	FLG	2	20' N OF #	PICRIC AC	L	MONIT

FCC	RCRA BB	01473.05	FLG	2	20' N OF #	PICRIC AC	L	MONIT
FCC	RCRA BB	01473.06	FLG	2	20' N OF #	PICRIC AC	L	MONIT
FCC	RCRA BB	01474.00	VLV	1.5	2O FT N O	PICRIC AC	L	MONIT
FCC	RCRA BB	01474.10	FLG	1.5	2O FT N O	PICRIC AC	L	MONIT
FCC	RCRA BB	01475.00	VLV	1.5	2O FT NW	ANILINE 1(	H	MONIT
FCC	RCRA BB	01475.10	FLG	1.5	2O FT NW	ANILINE 1(	H	MONIT
FCC	RCRA BB	01476.00	VLV	1.5	2O FT NE	ANILINE 1(	H	MONIT
FCC	RCRA BB	01476.10	FLG	1.5	40 FT NE (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01477.00	VLV	1.5	40 FT NE (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01477.10	FLG	1.5	40 FT NE (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01478.00	VLV	0.75	40 FT NE (	PICRIC AC	L	MONIT
FCC	RCRA BB	01478.10	CON	0.75	40 FT NE (	PICRIC AC	L	MONIT
FCC	RCRA BB	01479.00	VLV	0.75	40 FT NE (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01479.10	CON	0.75	40 FT NE (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01480.00	VLV	0.75	40' NW OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01480.01	OEL	0.75	40' NE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01480.30	VLV	2	20' W OF A	PICRIC AC	L	MONIT
FCC	RCRA BB	01480.31	FLG	2	20' W OF A	PICRIC AC	L	MONIT
FCC	RCRA BB	01480.32	FLG	2	20' W OF A	PICRIC AC	L	MONIT
FCC	RCRA BB	01481.00	VLV	1.5	40FT NW (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01482.00	CNT	4	40FT NW (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01482.10	FLG	4	40FT NW (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01482.20	FLG	4	40FT NW (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01483.00	VLV	0.75	40FT NW (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01483.01	OEL	0.75	40FT NW (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01484.00	VLV	1.5	40FT NW (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01485.00	VLV	1.5	40FT NW (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01486.00	VLV	0.75	40FT NW (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01486.01	OEL	0.75	40FT NW (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01487.00	CNT	4	40FT NW (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01487.10	FLG	4	40FT NW (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01487.20	FLG	4	40FT NW (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01488.00	VLV	1.5	40FT NW (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01489.00	VLV	2	40FT NW (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01489.10	FLG	2	40FT NW (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01489.20	FLG	2	40FT NW (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01490.00	VLV	2	40FT NW (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01490.10	FLG	2	40FT NW (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01490.20	FLG	2	40FT NW (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01491.00	VLV	1.5	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01491.10	FLG	1.5	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01491.20	FLG	1.5	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01491.30	SCR	2	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01491.40	SCR	2	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01492.00	VLV	1.5	40FT NW (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01492.10	FLG	1.5	40FT NW (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01492.20	FLG	1.5	40FT NW (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01492.21	SCR	1.5	40FT NW (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01492.22	SCR	1.5	40FT NW (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01493.00	VLV	0.75	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01493.01	OEL	0.75	AT HAZAR	ANILINE 1(	H	MONIT

FCC	RCRA BB	01493.10	CON	0.75	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01494.00	VLV	1.5	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01494.10	FLG	1.5	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01495.00	VLV	1.5	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01495.10	FLG	1.5	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01496.00	VLV	1.5	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01496.10	FLG	1.5	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01496.20	VLV	0.75	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01496.21	SCR	0.75	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01496.22	OEL	0.75	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01496.30	VLV	1	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01496.31	SCR	1	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01496.32	CON	1	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01496.33	OEL	1	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01496.40	VLV	0.5	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01496.41	SCR	0.5	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01496.42	INS	0.5	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01496.50	VLV	1	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01496.51	SCR	1	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01496.52	SCR	1	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01496.53	SCR	1	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01496.54	SCR	1	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01496.55	OEL	1	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01497.00	VLV	0.75	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01497.10	CON	0.75	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01497.20	CON	0.5	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01497.21	SCR	0.5	AT HAZAR	HAZ WAS1	L	MONIT
FCC	RCRA BB	01497.22	SCR	0.5	AT HAZAR	HAZ WAS1	L	MONIT
FCC	RCRA BB	01497.30	VLV	0.5	AT HAZAR	HAZ WAS1	L	MONIT
FCC	RCRA BB	01497.31	SCR	0.5	AT HAZAR	HAZ WAS1	L	MONIT
FCC	RCRA BB	01497.32	SCR	0.5	AT HAZAR	HAZ WAS1	L	MONIT
FCC	RCRA BB	01497.40	CON	0.5	AT HAZAR	HAZ WAS1	L	MONIT
FCC	RCRA BB	01497.41	SCR	0.5	AT HAZAR	HAZ WAS1	L	MONIT
FCC	RCRA BB	01497.42	OEL	0.5	AT HAZAR	HAZ WAS1	L	MONIT
FCC	RCRA BB	01497.43	SCR	0.5	AT HAZAR	HAZ WAS1	L	MONIT
FCC	RCRA BB	01497.44	SCR	0.5	AT HAZAR	HAZ WAS1	L	MONIT
FCC	RCRA BB	01497.50	VLV	0.5	AT HAZAR	HAZ WAS1	L	MONIT
FCC	RCRA BB	01497.51	SCR	0.5	AT HAZAR	HAZ WAS1	L	MONIT
FCC	RCRA BB	01497.52	SCR	0.5	AT HAZAR	HAZ WAS1	L	MONIT
FCC	RCRA BB	01497.53	OEL	0.5	AT HAZAR	HAZ WAS1	L	MONIT
FCC	RCRA BB	01497.60	VLV	0.5	AT HAZAR	HAZ WAS1	L	MONIT
FCC	RCRA BB	01497.61	SCR	0.5	AT HAZAR	HAZ WAS1	L	MONIT
FCC	RCRA BB	01497.62	SCR	0.5	AT HAZAR	HAZ WAS1	L	MONIT
FCC	RCRA BB	01497.63	OEL	0.5	AT HAZAR	HAZ WAS1	L	MONIT
FCC	RCRA BB	01498.00	VLV	0.75	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01498.01	OEL	0.75	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01501.00	CKV	2	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01501.10	FLG	2	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01501.20	FLG	2	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01502.00	PMP	0	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01502.10	FLG	2	AT HAZAR	ANILINE 1(	H	MONIT

FCC	RCRA BB	01502.20	FLG	2	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01503.00	VLV	3	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01503.10	FLG	3	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01503.20	FLG	3	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01503.30	FLG	4	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01504.00	VLV	1	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01504.10	CON	1	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01504.20	CON	1	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01504.30	SCR	1	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01504.40	OEL	1	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01505.00	VLV	2	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01505.10	FLG	2	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01505.20	FLG	3	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01505.60	OEL	2	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01506.00	FLG	2	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01507.00	VLV	1	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01508.00	FLG	2	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01509.00	VLV	1.5	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01509.10	FLG	1.5	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01509.20	VLV	2	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01509.30	FLG	2	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01509.40	FLG	2	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01510.00	PMP	0	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01510.10	FLG	2	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01510.20	FLG	2	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01511.00	VLV	1	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01511.10	SCR	1	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01511.20	SCR	1	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01511.30	OEL	0.5	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01511.40	OEL	1	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01512.00	CON	1	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01512.10	CON	1	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01512.20	SCR	1	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01512.30	CON	1	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01512.40	SCR	1	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01513.00	VLV	1	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01513.01	SCR	1	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01513.10	SCR	1	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01513.20	CON	1	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01513.30	SCR	1	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01513.31	CON	1	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01513.32	SCR	1	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01513.40	SCR	1	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01513.41	SCR	0.5	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01513.42	SCR	0.5	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01514.00	VLV	1	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01514.01	OEL	1	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01514.10	SCR	1	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01514.20	SCR	1	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01514.30	VLV	1	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01514.31	SCR	1	AT HAZ. W	ANILINE 1(	H	MONIT

FCC	RCRA BB	01514.32	SCR	1	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01514.33	SCR	0.5	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01514.40	CON	0.5	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01514.41	SCR	0.5	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01514.42	INS	0.5	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01514.50	VLV	0.5	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01514.51	SCR	0.5	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01514.52	SCR	0.5	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01514.53	CON	0.5	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01514.54	OEL	0.5	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01514.60	VLV	0.375	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01514.61	SCR	0.375	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01514.62	SCR	0.375	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01514.63	OEL	0.375	AT HAZ. W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01515.00	CKV	2	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01515.10	FLG	2	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01515.20	FLG	2	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01516.00	VLV	2	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01516.10	FLG	2	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01516.20	FLG	2	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01517.00	VLV	2	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01517.10	FLG	2	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01517.20	FLG	2	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01518.00	VLV	2	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01518.10	FLG	2	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01518.20	FLG	2	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01519.00	VLV	2	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01519.10	FLG	2	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01519.20	FLG	2	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01520.00	VLV	0.75	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01520.10	SCR	0.75	AT HAZ W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01520.20	SCR	0.75	AT HAZ W	ANILINE 1(	H	MONIT
FCC	RCRA BB	01521.00	VLV	0.75	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01521.10	SCR	0.75	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01521.20	SCR	0.75	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01521.30	OEL	0.75	AT HAZAR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01522.00	VLV	3	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01522.10	FLG	3	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01522.20	FLG	3	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01523.00	VLV	3	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01523.10	FLG	3	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01523.20	FLG	3	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01524.00	VLV	2	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01524.10	FLG	2	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01524.20	FLG	2	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01525.00	VLV	1.5	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01525.10	FLG	1.5	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01525.20	FLG	1.5	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01526.00	VLV	1	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01526.10	OEL	1	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01527.00	VLV	2	AT PRIMA	ANILINE 1(	H	MONIT

FCC	RCRA BB	01527.10	OEL	2	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01528.00	VLV	2	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01529.00	VLV	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01529.10	SCR	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01529.20	SCR	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01529.30	OEL	0.5	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01529.40	FLG	1.5	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01529.41	SCR	1.5	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01530.00	VLV	1.5	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01530.01	FLG	1.5	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01530.02	FLG	1.5	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01530.03	VLV	1.5	20'E OF PI	ANILINE 1(	H	MONIT
FCC	RCRA BB	01530.04	FLG	1.5	20'E OF PI	ANILINE 1(	H	MONIT
FCC	RCRA BB	01530.05	FLG	1.5	20'E OF PI	ANILINE 1(	H	MONIT
FCC	RCRA BB	01530.06	FLG	3	20'E OF PI	ANILINE 1(	H	MONIT
FCC	RCRA BB	01530.07	FLG	3	20'E OF PI	ANILINE 1(	H	MONIT
FCC	RCRA BB	01530.10	VLV	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01530.11	OEL	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01530.20	VLV	1.5	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01530.21	FLG	1.5	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01530.22	FLG	1.5	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01530.30	VLV	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01530.31	INS	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01530.40	VLV	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01530.41	OEL	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01530.50	VLV	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01530.51	INS	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01530.60	VLV	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01530.61	INS	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01531.00	CKV	1.5	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01531.10	VLV	0.5	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01532.00	FLG	1.5	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01533.00	PMP	0	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01533.10	SCR	0.5	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01533.20	SCR	0.5	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01534.00	FLG	1.5	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01535.00	VLV	1.5	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01535.01	OEL	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01536.00	FLG	2	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01536.50	VLV	2	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01536.51	FLG	2	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01536.52	FLG	2	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01536.60	VLV	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01536.61	OEL	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01536.62	FLG	2	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01536.63	FLG	4	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01536.70	VLV	2	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01536.71	FLG	2	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01536.72	FLG	2	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01536.80	VLV	1	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01536.81	OEL	1	AT PRIMA	ANILINE 1(	H	MONIT

FCC	RCRA BB	01536.82	OEL	4	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01539.00	VLV	2	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01539.10	FLG	2	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01539.20	FLG	2	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01540.00	VLV	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01540.10	OEL	1	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01542.00	VLV	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01542.10	CON	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01542.20	SCR	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01542.30	OEL	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01542.40	FLG	1.5	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01543.00	VLV	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01543.10	CON	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01543.20	SCR	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01543.30	OEL	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01543.40	FLG	2	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01544.00	VLV	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01544.10	CON	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01544.20	SCR	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01544.30	OEL	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01544.40	FLG	2	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01545.00	VLV	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01545.10	CON	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01545.20	SCR	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01545.30	OEL	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01545.40	FLG	1.5	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA BB	01552.00	CON	0.5	8FT NW O	ANILINE 1(	H	MONIT
FCC	RCRA BB	01553.00	VLV	0.75	5FT NW O	ANILINE 1(	H	MONIT
FCC	RCRA BB	01554.00	VLV	0.75	5FT NW O	ANILINE 1(	H	MONIT
FCC	RCRA BB	01554.10	CON	0.75	5FT NW O	ANILINE 1(	H	MONIT
FCC	RCRA BB	01554.20	SCR	0.75	5FT NW O	ANILINE 1(	H	MONIT
FCC	RCRA BB	01554.30	OEL	0.75	5FT NW O	ANILINE 1(	H	MONIT
FCC	RCRA BB	01555.00	CON	2	5FT NW O	ANILINE 1(	H	MONIT
FCC	RCRA BB	01555.10	SCR	2	5FT NW O	ANILINE 1(	H	MONIT
FCC	RCRA BB	01555.20	SCR	2	5FT NW O	ANILINE 1(	H	MONIT
FCC	RCRA BB	01555.30	CON	2	5FT NW O	ANILINE 1(	H	MONIT
FCC	RCRA BB	01555.40	SCR	2	5FT NW O	ANILINE 1(	H	MONIT
FCC	RCRA BB	01555.50	SCR	2	5FT NW O	ANILINE 1(	H	MONIT
FCC	RCRA BB	01556.00	VLV	2	5FT NW O	ANILINE 1(	H	MONIT
FCC	RCRA BB	01556.10	FLG	2	5FT NW O	ANILINE 1(	H	MONIT
FCC	RCRA BB	01556.20	FLG	2	5FT NW O	ANILINE 1(	H	MONIT
FCC	RCRA BB	01557.00	CON	2	5FT NW O	ANILINE 1(	H	MONIT
FCC	RCRA BB	01557.10	SCR	2	5FT NW O	ANILINE 1(	H	MONIT
FCC	RCRA BB	01558.00	VLV	0.75	5FT NW O	ANILINE 1(	H	MONIT
FCC	RCRA BB	01558.10	OEL	0.75	5FT NW O	ANILINE 1(	H	MONIT
FCC	RCRA BB	01559.00	VLV	2	5FT NW O	ANILINE 1(	H	MONIT
FCC	RCRA BB	01559.10	FLG	2	5FT NW O	ANILINE 1(	H	MONIT
FCC	RCRA BB	01562.00	VLV	1	15FT N PR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01562.10	CON	0.75	15FT N PR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01562.20	SCR	0.75	15FT N PR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01562.30	SCR	0.75	15FT N PR	ANILINE 1(	H	MONIT

FCC	RCRA BB	01563.00	VLV	3	15FT N PR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01563.10	FLG	3	15FT N PR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01563.20	FLG	3	15FT N PR	ANILINE 1(	H	MONIT
FCC	RCRA BB	01564.00	VLV	1.5	5FT SE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01565.00	VLV	1.5	5FT SE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01566.00	CKV	1.5	3FT E OF (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01567.00	VLV	1	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01567.10	SCR	1	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01567.20	SCR	1	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01567.30	CON	1	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01567.40	SCR	1	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01567.50	SCR	1	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01568.00	VLV	1.5	5FT E OF (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01568.10	FLG	1.5	5FT E OF (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01568.20	FLG	1.5	5FT E OF (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01568.30	FLG	1.5	5FT E OF (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01568.40	FLG	1.5	5FT E OF (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01568.41	SCR	1.5	5FT E OF (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01569.00	VLV	1.5	5FT E OF (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01569.10	FLG	1.5	5FT E OF (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01569.20	FLG	1.5	5FT E OF (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01570.00	CKV	1.5	5FT E OF (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01571.00	FLG	2	5FT E OF (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01572.00	CON	2	5FT E OF (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01572.10	FLG	1.5	5FT E OF (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01572.20	FLG	1.5	5FT E OF (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01572.30	VLV	2	5FT E OF (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01572.40	VLV	2	5FT E OF (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01573.00	VLV	0.5	5FT E OF (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01573.10	SCR	0.5	5FT E OF (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01573.20	SCR	0.5	5FT E OF (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01573.30	CON	0.75	5FT E OF (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01573.40	OEL	0.75	5FT E OF (	ANILINE 1(	H	MONIT
FCC	RCRA BB	01574.00	VLV	0.5	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01574.10	SCR	0.5	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01574.20	SCR	0.5	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01574.30	SCR	0.5	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01575.00	CON	0.5	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01575.10	SCR	0.5	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01575.20	SCR	0.5	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01576.00	VLV	0.5	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01576.10	SCR	0.5	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01576.20	SCR	0.5	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01576.30	CON	0.5	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01576.40	OEL	0.5	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01577.00	PMP	0	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01577.10	FLG	1.5	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01577.20	FLG	1	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01578.00	VLV	2	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01578.10	FLG	2	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01578.20	FLG	2	5FT E OF S	ANILINE 1(	H	MONIT

FCC	RCRA BB	01578.30	SCR	0.75	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01579.00	VLV	1	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01579.10	FLG	1	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01579.20	FLG	1	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01580.00	VLV	1.5	1FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01580.10	FLG	1.5	1FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01580.20	FLG	1.5	1FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01581.00	FLG	1	2FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01583.00	FLG	2	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01583.01	FLG	3	6FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01583.02	FLG	2	6FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01583.20	VLV	1	6FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01583.21	SCR	1	6FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01583.22	SCR	1	6FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01583.23	OEL	1	6FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01583.30	VLV	2	6FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01583.31	FLG	2	6FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01583.32	FLG	2	6FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01583.40	VLV	1	6FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01583.41	SCR	1	6FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01584.00	PMP	0	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01584.01	FLG	2	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01584.02	SCR	0.75	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01584.03	SCR	0.5	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01585.00	FLG	1.5	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01585.20	VLV	0.5	6' E OF SL	ANILINE 1(	H	MONIT
FCC	RCRA BB	01585.21	SCR	0.5	6' E OF SL	ANILINE 1(	H	MONIT
FCC	RCRA BB	01585.22	SCR	0.5	6' E OF SL	ANILINE 1(	H	MONIT
FCC	RCRA BB	01585.30	CON	0.5	6' E OF SL	ANILINE 1(	H	MONIT
FCC	RCRA BB	01585.31	SCR	0.5	6' E OF SL	ANILINE 1(	H	MONIT
FCC	RCRA BB	01585.32	SCR	0.5	6' E OF SL	ANILINE 1(	H	MONIT
FCC	RCRA BB	01585.40	CON	0.5	6' E OF SL	ANILINE 1(	H	MONIT
FCC	RCRA BB	01585.41	SCR	0.5	6' E OF SL	ANILINE 1(	H	MONIT
FCC	RCRA BB	01585.42	SCR	0.5	6' E OF SL	ANILINE 1(	H	MONIT
FCC	RCRA BB	01585.50	VLV	0.75	6' E OF SL	ANILINE 1(	H	MONIT
FCC	RCRA BB	01585.52	OEL	0.75	6' E OF SL	ANILINE 1(	H	MONIT
FCC	RCRA BB	01585.60	VLV	0.75	6' E OF SL	ANILINE 1(	H	MONIT
FCC	RCRA BB	01585.61	SCR	0.75	6' E OF SL	ANILINE 1(	H	MONIT
FCC	RCRA BB	01585.62	SCR	0.75	6' E OF SL	ANILINE 1(	H	MONIT
FCC	RCRA BB	01586.00	CKV	1.5	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01587.00	VLV	1.5	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01587.10	FLG	1.5	6' ENE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01587.20	FLG	1.5	6' ENE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01588.00	VLV	0.755	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01589.00	VLV	0.75	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01589.10	SCR	0.75	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01589.20	SCR	0.75	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01590.00	CON	0.75	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01591.00	VLV	0.75	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01591.20	OEL	0.75	5FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01592.00	VLV	0.75	5FT E OF S	ANILINE 1(	H	MONIT

FCC	RCRA BB	01592.01	FLG	1.5	8FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01592.02	FLG	1.5	8FT E OF S	ANILINE 1(	H	MONIT
FCC	RCRA BB	01593.00	VLV	0.75	BTM OF SI	ANILINE 1(	H	MONIT
FCC	RCRA BB	01593.20	OEL	0.5	BTM OF SI	ANILINE 1(	H	MONIT
FCC	RCRA BB	01596.00	VLV	2	BTM OF SI	ANILINE 1(	H	MONIT
FCC	RCRA BB	01596.10	FLG	2	BTM OF SI	ANILINE 1(	H	MONIT
FCC	RCRA BB	01596.20	FLG	2	BTM OF SI	ANILINE 1(	H	MONIT
FCC	RCRA BB	01597.00	CON	0.75	BTM OF SI	ANILINE 1(	H	MONIT
FCC	RCRA BB	01598.00	FLG	4	BTM OF SI	ANILINE 1(	H	MONIT
FCC	RCRA BB	01599.00	FLG	8	W SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01606.00	FLG	3	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01607.00	VLV	0.75	TOP OF SI	ANILINE 1(	H	MONIT
FCC	RCRA BB	01607.10	SCR	0.75	TOP OF SI	ANILINE 1(	H	MONIT
FCC	RCRA BB	01607.20	OEL	0.75	TOP OF SI	ANILINE 1(	H	MONIT
FCC	RCRA BB	01608.00	FLG	1.5	TOP OF SI	ANILINE 1(	H	MONIT
FCC	RCRA BB	01609.00	FLG	4	TOP OF SI	ANILINE 1(	H	MONIT
FCC	RCRA BB	01610.00	VLV	0.75	TOP OF SI	ANILINE 1(	H	MONIT
FCC	RCRA BB	01610.10	SCR	0.75	TOP OF SI	ANILINE 1(	H	MONIT
FCC	RCRA BB	01610.20	OEL	0.75	TOP OF SI	ANILINE 1(	H	MONIT
FCC	RCRA BB	01611.00	FLG	2	TOP OF SI	ANILINE 1(	H	MONIT
FCC	RCRA BB	01614.00	FLG	3	TOP OF #1	ANILINE 1(	H	MONIT
FCC	RCRA BB	01615.00	VLV	0.75	TOP OF #1	ANILINE 1(	H	MONIT
FCC	RCRA BB	01615.10	SCR	0.75	TOP OF #1	ANILINE 1(	H	MONIT
FCC	RCRA BB	01615.20	OEL	0.75	TOP OF #1	ANILINE 1(	H	MONIT
FCC	RCRA BB	01621.00	VLV	0.75	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01621.10	SCR	0.75	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01621.20	OEL	0.75	E SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA BB	01622.00	VLV	1.5	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01622.10	FLG	1.5	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01622.20	FLG	2	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01623.00	FLG	1.5	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01624.00	VLV	1.5	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01625.00	VLV	1	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01625.10	FLG	1	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01626.00	VLV	1.5	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01626.10	FLG	1.5	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01627.00	VLV	1	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01627.10	FLG	1	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01628.00	VLV	0.5	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01628.10	SCR	0.5	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01628.20	SCR	0.5	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01629.00	VLV	0.5	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01629.10	SCR	0.5	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01629.11	SCR	0.5	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01629.20	CON	0.5	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01629.21	SCR	0.5	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01629.22	OEL	0.5	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01630.00	CON	0.5	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01630.10	SCR	0.5	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01630.20	SCR	0.5	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01630.30	CON	0.5	S SIDE OF	PICRIC AC	L	MONIT

FCC	RCRA BB	01630.31	SCR	0.5	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01630.32	SCR	0.5	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01630.40	CON	1	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01630.50	CON	1	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01631.00	VLV	0.75	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01631.10	CON	0.5	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01631.20	CON	0.5	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01631.30	OEL	0.75	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01631.40	VLV	2	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01631.50	INS	1	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01632.00	VLV	0.75	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01632.10	SCR	0.75	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01632.20	CON	0.75	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01633.00	CKV	1.5	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01634.00	VLV	0.75	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01634.10	OEL	0.5	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01635.00	PMP	0	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01635.10	FLG	2	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01635.20	FLG	2	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01636.00	VLV	1	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01636.10	SCR	0.75	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01636.20	OEL	0.75	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01636.30	FLG	1	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01636.31	FLG	1	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01639.00	VLV	2	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01639.10	FLG	2	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01639.20	FLG	2	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01640.00	VLV	0.75	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01640.10	OEL	0.75	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01641.00	FLG	1	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01642.00	VLV	2	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01643.00	VLV	2	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01643.10	FLG	2	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01643.20	FLG	2	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01644.00	FLG	2	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01644.10	VLV	1	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01645.00	VLV	1.5	4'S OF PIC	PICRIC AC	L	MONIT
FCC	RCRA BB	01645.10	SCR	1.5	4'S OF PIC	PICRIC AC	L	MONIT
FCC	RCRA BB	01645.20	OEL	1.5	4'S OF PIC	PICRIC AC	L	MONIT
FCC	RCRA BB	01646.00	VLV	3	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01646.10	FLG	3	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01646.20	FLG	3	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01647.00	VLV	3	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01647.10	FLG	3	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01647.20	FLG	3	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01648.00	VLV	1.5	E SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01648.10	FLG	1.5	E SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01648.20	FLG	1.5	E SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01648.30	VLV	0.5	SE CORNE	PICRIC AC	L	MONIT
FCC	RCRA BB	01648.31	OEL	0.5	SE CORNE	PICRIC AC	L	MONIT
FCC	RCRA BB	01649.60	VLV	2	N SIDE OF	PICRIC AC	L	MONIT

FCC	RCRA BB	01649.70	FLG	2	N SIDE OF	PICRIC AC	L		MONIT
FCC	RCRA BB	01649.80	FLG	2	N SIDE OF	PICRIC AC	L		MONIT
FCC	RCRA BB	01650.00	VLV	1	SE SIDE C	PICRIC AC	L		MONIT
FCC	RCRA BB	01650.10	FLG	1	SE SIDE C	PICRIC AC	L		MONIT
FCC	RCRA BB	01650.20	FLG	1	SE SIDE C	PICRIC AC	L		MONIT
FCC	RCRA BB	01650.30	CON	1	SE SIDE C	PICRIC AC	L		MONIT
FCC	RCRA BB	01650.31	VLV	2	SE SIDE C	PICRIC AC	L		MONIT
FCC	RCRA BB	01650.32	FLG	2	SE SIDE C	PICRIC AC	L		MONIT
FCC	RCRA BB	01650.33	FLG	2	SE SIDE C	PICRIC AC	L		MONIT
FCC	RCRA BB	01650.34	VLV	1	SE SIDE C	PICRIC AC	L		MONIT
FCC	RCRA BB	01650.35	FLG	1	SE SIDE C	PICRIC AC	L		MONIT
FCC	RCRA BB	01650.36	FLG	1	SE SIDE C	PICRIC AC	L		MONIT
FCC	RCRA BB	01650.40	CON	0.75	SE SIDE C	PICRIC AC	L		MONIT
FCC	RCRA BB	01650.50	SCR	0.75	SE SIDE C	PICRIC AC	L		MONIT
FCC	RCRA BB	01650.60	SCR	0.75	SE SIDE C	PICRIC AC	L		MONIT
FCC	RCRA BB	01650.70	CON	0.75	SE SIDE C	PICRIC AC	L		MONIT
FCC	RCRA BB	01650.80	SCR	0.75	SE SIDE C	PICRIC AC	L		MONIT
FCC	RCRA BB	01651.00	PMP	0	SE SIDE P	PICRIC AC	L		MONIT
FCC	RCRA BB	01651.01	FLG	1	6'SE PICR	PICRIC AC	L		MONIT
FCC	RCRA BB	01651.02	VLV	1	6'SE PICR	PICRIC AC	L		MONIT
FCC	RCRA BB	01651.10	FLG	1	SE SIDE C	PICRIC AC	L		MONIT
FCC	RCRA BB	01651.20	FLG	1	6'SE OF PI	PICRIC AC	L		MONIT
FCC	RCRA BB	01651.30	VLV	0.75	6'SE OF PI	PICRIC AC	L		MONIT
FCC	RCRA BB	01651.31	FLG	0.75	6'SE OF PI	PICRIC AC	L		MONIT
FCC	RCRA BB	01651.32	FLG	0.75	6'SE OF PI	PICRIC AC	L		MONIT
FCC	RCRA BB	01651.33	FLG	0.75	6'SE OF PI	PICRIC AC	L		MONIT
FCC	RCRA BB	01651.34	VLV	1	SE OF PIC	PICRIC AC	L		MONIT
FCC	RCRA BB	01651.35	FLG	1	SE OF PIC	PICRIC AC	L		MONIT
FCC	RCRA BB	01651.36	FLG	1	SE OF PIC	PICRIC AC	L		MONIT
FCC	RCRA BB	01651.40	VLV	0.75	6'SE OF PI	PICRIC AC	L		MONIT
FCC	RCRA BB	01651.41	INS	0.75	6'SE OF PI	PICRIC AC	L		MONIT
FCC	RCRA BB	01651.42	FLG	1	SE OF PIC	PICRIC AC	L		MONIT
FCC	RCRA BB	01651.50	VLV	0.75	6'SE OF PI	PICRIC AC	L		MONIT
FCC	RCRA BB	01651.51	SCR	0.75	6'SE OF PI	PICRIC AC	L		MONIT
FCC	RCRA BB	01651.52	FLG	1	SE OF PIC	PICRIC AC	L		MONIT
FCC	RCRA BB	01651.53	FLG	1	SE OF PIC	PICRIC AC	L		MONIT
FCC	RCRA BB	01652.00	CON	1.5	W SIDE OF	PICRIC AC	L		MONIT
FCC	RCRA BB	01652.01	FLG	1.5	SE SIDE C	PICRIC AC	L		MONIT
FCC	RCRA BB	01652.10	CKV	1.5	S SIDE OF	PICRIC AC	L		MONIT
FCC	RCRA BB	01652.20	FLG	1.5	S SIDE OF	PICRIC AC	L		MONIT
FCC	RCRA BB	01652.20	VLV	1.5	SE SIDE C	PICRIC AC	L		MONIT
FCC	RCRA BB	01652.21	FLG	1.5	SE SIDE C	PICRIC AC	L		MONIT
FCC	RCRA BB	01652.22	FLG	1.5	SE SIDE C	PICRIC AC	L		MONIT
FCC	RCRA BB	01652.30	VLV	1	SE SIDE C	PICRIC AC	L		MONIT
FCC	RCRA BB	01652.31	FLG	1	SE SIDE C	PICRIC AC	L		MONIT
FCC	RCRA BB	01652.32	FLG	1	SE SIDE C	PICRIC AC	L		MONIT
FCC	RCRA BB	01652.40	VLV	1.5	SE SIDE C	PICRIC AC	L		MONIT
FCC	RCRA BB	01652.41	FLG	1.5	SE SIDE C	PICRIC AC	L		MONIT
FCC	RCRA BB	01652.42	FLG	1.5	SE SIDE C	PICRIC AC	L		MONIT
FCC	RCRA BB	01652.50	VLV	1.5	SE SIDE C	PICRIC AC	L		MONIT
FCC	RCRA BB	01652.51	FLG	1.5	SE SIDE C	PICRIC AC	L		MONIT

FCC	RCRA BB	01652.52	FLG	1.5	SE SIDE C	PICRIC AC	L		MONIT
FCC	RCRA BB	01667.20	VLV	2	6'SE OF PI	PICRIC AC	L		MONIT
FCC	RCRA BB	01667.21	FLG	2	6'SE OF PI	PICRIC AC	L		MONIT
FCC	RCRA BB	01667.22	FLG	2	6'SE OF PI	PICRIC AC	L		MONIT
FCC	RCRA BB	01667.30	FLG	2	15'S OF PI	PICRIC AC	L		MONIT
FCC	RCRA BB	01667.40	VLV	2	22'ESE OF	PICRIC AC	L		MONIT
FCC	RCRA BB	01667.41	FLG	2	22'ESE OF	PICRIC AC	L		MONIT
FCC	RCRA BB	01667.42	FLG	2	22'ESE OF	PICRIC AC	L		MONIT
FCC	RCRA BB	01667.50	VLV	1	20'ESE OF	PICRIC AC	L		MONIT
FCC	RCRA BB	01667.51	SCR	1	20'ESE OF	PICRIC AC	L		MONIT
FCC	RCRA BB	01667.60	VLV	1	40'S OF S/	PICRIC AC	L		MONIT
FCC	RCRA BB	01667.61	OEL	1	40'S OF S/	PICRIC AC	L		MONIT
FCC	RCRA BB	01667.70	VLV	1.5	40'S OF S/	PICRIC AC	L		MONIT
FCC	RCRA BB	01667.71	FLG	1.5	40'S OF S/	PICRIC AC	L		MONIT
FCC	RCRA BB	01667.72	FLG	1.5	40'S OF S/	PICRIC AC	L		MONIT
FCC	RCRA BB	01667.80	CKV	1.5	40'S OF S/	PICRIC AC	L		MONIT
FCC	RCRA BB	01667.81	FLG	1.5	40'S OF S/	PICRIC AC	L		MONIT
FCC	RCRA BB	01668.30	FLG	1.5	1ST LVL S	PICRIC AC	L		MONIT
FCC	RCRA BB	01668.40	CON	0.75	1ST LVL S	PICRIC AC	L		MONIT
FCC	RCRA BB	01668.50	SCR	0.75	1ST LVL S	PICRIC AC	L		MONIT
FCC	RCRA BB	01668.60	SCR	0.75	1ST LVL S	PICRIC AC	L		MONIT
FCC	RCRA BB	01668.70	SCR	0.75	1ST LVL S	PICRIC AC	L		MONIT
FCC	RCRA BB	01668.80	FLG	0.75	1ST LVL S	PICRIC AC	L		MONIT
FCC	RCRA BB	01669.00	VLV	0.75	1ST LVL S	PICRIC AC	L		MONIT
FCC	RCRA BB	01669.01	OEL	0.75	1ST LVL S	PICRIC AC	L		MONIT
FCC	RCRA BB	01669.10	SCR	0.75	1ST LVL S	PICRIC AC	L		MONIT
FCC	RCRA BB	01669.20	SCR	2	1ST LVL S	PICRIC AC	L		MONIT
FCC	RCRA BB	01669.21	FLG	2	1ST LVL S	PICRIC AC	L		MONIT
FCC	RCRA BB	01669.22	FLG	2	1ST LVL S	PICRIC AC	L		MONIT
FCC	RCRA BB	01669.23	VLV	2	1ST LVL S	PICRIC AC	L		MONIT
FCC	RCRA BB	01669.30	VLV	1.5	1ST LVL S	PICRIC AC	L		MONIT
FCC	RCRA BB	01669.31	FLG	1.5	1ST LVL S	PICRIC AC	L		MONIT
FCC	RCRA BB	01669.32	FLG	1.5	1ST LVL S	PICRIC AC	L		MONIT
FCC	RCRA BB	01669.40	FLG	1.5	1ST LVL S	PICRIC AC	L		MONIT
FCC	RCRA BB	01669.41	INS	1.5	1ST LVL S	PICRIC AC	L		MONIT
FCC	RCRA BB	01669.42	FLG	1.5	1ST LVL S	PICRIC AC	L		MONIT
FCC	RCRA BB	01669.50	VLV	1.5	1ST LVL S	PICRIC AC	L		MONIT
FCC	RCRA BB	01669.51	FLG	1.5	1ST LVL S	PICRIC AC	L		MONIT
FCC	RCRA BB	01669.52	FLG	1.5	1ST LVL S	PICRIC AC	L		MONIT
FCC	RCRA BB	01669.60	VLV	1.5	1ST LVL S	PICRIC AC	L		MONIT
FCC	RCRA BB	01669.61	FLG	1.5	1ST LVL S	PICRIC AC	L		MONIT
FCC	RCRA BB	01669.62	FLG	1.5	1ST LVL S	PICRIC AC	L		MONIT
FCC	RCRA BB	01669.70	VLV	1.5	1ST LVL S	PICRIC AC	L		MONIT
FCC	RCRA BB	01669.71	FLG	1.5	1ST LVL S	PICRIC AC	L		MONIT
FCC	RCRA BB	01669.72	FLG	1.5	1ST LVL S	PICRIC AC	L		MONIT
FCC	RCRA BB	01669.80	VLV	1.5	GNR FLR (	PICRIC AC	L		MONIT
FCC	RCRA BB	01669.81	FLG	1.5	GNR FLR (	PICRIC AC	L		MONIT
FCC	RCRA BB	01669.82	FLG	1.5	GNR FLR (	PICRIC AC	L		MONIT
FCC	RCRA BB	01670.00	VLV	0.75	35FT NE C	PICRIC AC	L		MONIT
FCC	RCRA BB	01670.01	OEL	0.75	35FT NE C	PICRIC AC	L		MONIT
FCC	RCRA BB	01670.02	VLV	0.75	35FT NE C	PICRIC AC	L		MONIT

FCC	RCRA BB	01670.03	SCR	0.75	35FT NE C	PICRIC AC	L	MONIT
FCC	RCRA BB	01670.04	SCR	0.75	35FT NE C	PICRIC AC	L	MONIT
FCC	RCRA BB	01671.00	VLV	0.75	35FT NE C	PICRIC AC	L	MONIT
FCC	RCRA BB	01671.01	OEL	0.75	35FT NE C	PICRIC AC	L	MONIT
FCC	RCRA BB	01671.02	VLV	0.75	35FT NE C	PICRIC AC	L	MONIT
FCC	RCRA BB	01671.03	SCR	0.75	35FT NE C	PICRIC AC	L	MONIT
FCC	RCRA BB	01671.04	OEL	0.75	35FT NE C	PICRIC AC	L	MONIT
FCC	RCRA BB	01671.10	FLG	1.5	55FT NE C	PICRIC AC	L	MONIT
FCC	RCRA BB	01671.40	VLV	1	12'NW OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01671.41	OEL	1	12'NW OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01671.50	VLV	0.75	14'N OF BI	PICRIC AC	L	MONIT
FCC	RCRA BB	01671.51	SCR	0.75	14'N OF BI	PICRIC AC	L	MONIT
FCC	RCRA BB	01671.52	OEL	0.75	14'N OF BI	PICRIC AC	L	MONIT
FCC	RCRA BB	01671.60	VLV	2	14'N OF BI	PICRIC AC	L	MONIT
FCC	RCRA BB	01671.61	FLG	2	14'N OF BI	PICRIC AC	L	MONIT
FCC	RCRA BB	01671.62	FLG	2	14'N OF BI	PICRIC AC	L	MONIT
FCC	RCRA BB	01671.70	VLV	2	14'N OF BI	PICRIC AC	L	MONIT
FCC	RCRA BB	01671.71	FLG	2	14'N OF BI	PICRIC AC	L	MONIT
FCC	RCRA BB	01671.72	FLG	2	14'N OF BI	PICRIC AC	L	MONIT
FCC	RCRA BB	01672.00	VLV	0.75	17FT N OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01672.01	OEL	0.75	17FT N OF	PICRIC AC	L	MONIT
FCC	RCRA BB	01673.00	VLV	1.5	12FT E AN	PICRIC AC	L	MONIT
FCC	RCRA BB	01674.00	VLV	2	12FT E AN	PICRIC AC	L	MONIT
FCC	RCRA BB	01725	VLV	0.75	S OF ANIL	AN 50% O·	H	MONIT
FCC	RCRA BB	01725.01	SCR	0.75	S OF ANIL	AN 50% O·	H	MONIT
FCC	RCRA BB	01725.02	SCR	0.75	S OF ANIL	AN 50% O·	H	MONIT
FCC	RCRA BB	01725.03	SCR	0.75	S OF ANIL	AN 50% O·	H	MONIT
FCC	RCRA BB	01725.04	OEL	0.75	S OF ANIL	AN 50% O·	H	MONIT
FCC	RCRA BB	01726	VLV	0.75	S OF ANIL	AN 50% O·	H	MONIT
FCC	RCRA BB	01727	VLV	0.75	S OF ANIL	AN 50% O·	H	MONIT
FCC	RCRA BB	01727.10	FLG	2	S OF ANIL	AN 50% O·	H	MONIT
FCC	RCRA BB	01727.20	VLV	1	S OF ANIL	AN 50% O·	H	MONIT
FCC	RCRA BB	01727.21	OEL	1	S OF ANIL	AN 50% O·	H	MONIT
FCC	RCRA BB	01728	VLV	0.75	S OF ANIL	AN 50% O·	H	MONIT
FCC	RCRA BB	01728.01	SCR	0.75	S OF ANIL	AN 50% O·	H	MONIT
FCC	RCRA BB	01728.02	SCR	0.75	S OF ANIL	AN 50% O·	H	MONIT
FCC	RCRA BB	01728.03	SCR	0.75	S OF ANIL	AN 50% O·	H	MONIT
FCC	RCRA BB	01728.04	OEL	0.75	S OF ANIL	AN 50% O·	H	MONIT
FCC	RCRA BB	01729	VLV	0.75	S OF ANIL	AN 50% O·	H	MONIT
FCC	RCRA BB	01730	VLV	0.75	S OF ANIL	AN 50% O·	H	MONIT
FCC	RCRA BB	01730.10	CON	2	S OF ANIL	AN 50% O·	H	MONIT
FCC	RCRA BB	01730.11	SCR	2	S OF ANIL	AN 50% O·	H	MONIT
FCC	RCRA BB	01730.20	VLV	0.75	S OF ANIL	AN 50% O·	H	MONIT
FCC	RCRA BB	01730.21	SCR	0.75	S OF ANIL	AN 50% O·	H	MONIT
FCC	RCRA BB	01730.22	OEL	0.75	S OF ANIL	AN 50% O·	H	MONIT
FCC	RCRA BB	01730.30	VLV	1	SE CRNR	AN 50% O·	H	MONIT
FCC	RCRA BB	01730.31	VLV	1	SE CRNR	AN 50% O·	H	MONIT
FCC	RCRA BB	01730.32	FLG	1	SE CRNR	AN 50% O·	H	MONIT
FCC	RCRA BB	01730.33	FLG	1	SE CRNR	AN 50% O·	H	MONIT
FCC	RCRA BB	01730.34	VLV	1	SE CRNR	AN 50% O·	H	MONIT
FCC	RCRA BB	01730.35	FLG	1	SE CRNR	AN 50% O·	H	MONIT

FCC	RCRA BB	01730.36	FLG	1	SE CRNR	AN 50% O	H	MONIT
FCC	RCRA BB	01730.40	CKV	1.5	SE CRNR	AN 50% O	H	MONIT
FCC	RCRA BB	01730.41	VLV	1.5	SE CRNR	AN 50% O	H	MONIT
FCC	RCRA BB	01730.42	OEL	1.5	SE CRNR	AN 50% O	H	MONIT
FCC	RCRA BB	01730.43	CKV	1	SE CRNR	AN 50% O	H	MONIT
FCC	RCRA BB	01730.44	VLV	1	SE CRNR	AN 50% O	H	MONIT
FCC	RCRA BB	01730.50	VLV	1	SW CRNR	AN 50% O	H	MONIT
FCC	RCRA BB	01730.51	VLV	1.5	SW CRNR	AN 50% O	H	MONIT
FCC	RCRA BB	01730.52	VLV	0.75	SW CRNR	AN 50% O	H	MONIT
FCC	RCRA BB	01730.53	FLG	1.5	SW CRNR	AN 50% O	H	MONIT
FCC	RCRA BB	01730.54	VLV	1.5	SW CRNR	AN 50% O	H	MONIT
FCC	RCRA BB	01730.55	CKV	1	NW CRNR	AN 50% O	H	MONIT
FCC	RCRA BB	01730.56	FLG	1	NW CRNR	AN 50% O	H	MONIT
FCC	RCRA BB	01730.57	VLV	0.75	NW CRNR	AN 50% O	H	MONIT
FCC	RCRA BB	01730.58	OEL	0.75	NW CRNR	AN 50% O	H	MONIT
FCC	RCRA BB	01730.59	VLV	1	NW CRNR	AN 50% O	H	MONIT
FCC	RCRA BB	01730.60	VLV	1	NE CRNR	AN 50% O	H	MONIT
FCC	RCRA BB	01730.61	FLG	1	NE CRNR	AN 50% O	H	MONIT
FCC	RCRA BB	01730.62	VLV	1	NE CRNR	AN 50% O	H	MONIT
FCC	RCRA BB	01730.63	CKV	1	NE CRNR	AN 50% O	H	MONIT
FCC	RCRA BB	01733	FLG	2	S OF ANIL	AN 50% O	H	MONIT
FCC	RCRA BB	01733.10	FLG	2	S OF ANIL	AN 50% O	H	MONIT
FCC	RCRA CC	00534.00	FLG	8	#6 UNIT TI	TOLUENE	L	MONIT
FCC	RCRA CC	01537.00	VLV	1.5	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA CC	01537.10	FLG	1.5	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA CC	01537.20	FLG	1.5	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA CC	01538.00	VLV	1.5	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA CC	01538.10	FLG	1.5	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA CC	01538.20	FLG	1.5	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA CC	01541.00	FLG	2	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA CC	01541.10	SCR	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA CC	01541.20	FLG	1.5	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA CC	01541.30	SCR	0.75	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA CC	01546.00	CON	24	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA CC	01546.10	FLG	24	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA CC	01546.20	FLG	24	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA CC	01547.00	FLG	2	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA CC	01548.00	FLG	2	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA CC	01549.00	FLG	2	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA CC	01549.10	FLG	2	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA CC	01550.00	CON	1.5	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA CC	01550.10	SCR	1.5	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA CC	01550.20	CON	1.5	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA CC	01551.00	CON	1.5	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA CC	01551.10	SCR	1.5	AT PRIMA	ANILINE 1(	H	MONIT
FCC	RCRA CC	01560.00	CON	1.5	15FT N PR	ANILINE 1(	H	MONIT
FCC	RCRA CC	01561.00	VLV	1.5	15FT N PR	ANILINE 1(	H	MONIT
FCC	RCRA CC	01561.10	FLG	1.5	15FT N PR	ANILINE 1(	H	MONIT
FCC	RCRA CC	01561.20	FLG	1.5	15FT N PR	ANILINE 1(	H	MONIT
FCC	RCRA CC	01561.30	FLG	2	15FT N PR	ANILINE 1(	H	MONIT
FCC	RCRA CC	01561.40	SCR	1	15FT N PR	ANILINE 1(	H	MONIT

FCC	RCRA CC	01561.50	SCR	0.5	15FT N PR	ANILINE 1(	H	MONIT
FCC	RCRA CC	01605.00	FLG	1.5	NE SIDE C	ANILINE 1(	H	MONIT
FCC	RCRA CC	01612.00	FLG	1.5	TOP OF SI	ANILINE 1(	H	MONIT
FCC	RCRA CC	01612.10	FLG	1.5	TOP OF SI	ANILINE 1(	H	MONIT
FCC	RCRA CC	01613.00	FLG	1.5	TOP OF #1	ANILINE 1(	H	MONIT
FCC	RCRA CC	01613.10	FLG	1.5	TOP OF #1	ANILINE 1(	H	MONIT
FCC	RCRA CC	01616.00	FLG	4	TOP OF #1	ANILINE 1(	H	MONIT
FCC	RCRA CC	01617.00	FLG	1.5	TOP OF #1	ANILINE 1(	H	MONIT
FCC	RCRA CC	01618.00	FLG	3	TOP OF #1	ANILINE 1(	H	MONIT
FCC	RCRA CC	01619.00	CON	1.5	TOP OF #1	ANILINE 1(	H	MONIT
FCC	RCRA CC	01619.10	SCR	1.5	TOP OF #1	ANILINE 1(	H	MONIT
FCC	RCRA CC	01620.00	CON	1.5	TOP OF #1	ANILINE 1(	H	MONIT
FCC	RCRA CC	01620.10	SCR	1.5	TOP OF #1	ANILINE 1(	H	MONIT
FCC	RCRA CC	01647.30	FLG	1.5	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA CC	01647.40	SCR	0.5	S SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA CC	01647.50	FLG	2	SE SIDEO	PICRIC AC	L	MONIT
FCC	RCRA CC	01647.60	SCR	0.75	SE SIDEO	PICRIC AC	L	MONIT
FCC	RCRA CC	01649.30	FLG	2	E SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA CC	01649.40	SCR	0.75	E SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA CC	01649.50	FLG	24	E SIDE OF	PICRIC AC	L	MONIT
FCC	RCRA CC	01653.00	CON	1.5	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01653.10	SCR	1.5	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01654.00	CON	1.5	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01654.10	SCR	1.5	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01655.00	CON	1.5	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01655.10	SCR	1.5	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01656.00	CON	1.5	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01656.10	SCR	1.5	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01657.00	CON	1.5	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01657.10	SCR	1.5	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01658.00	FLG	1.5	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01659.00	VLV	1	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01659.10	FLG	1	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01660.00	CKV	1	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01661.00	CKV	1	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01662.00	VLV	0.5	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01662.10	SCR	0.5	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01662.20	SCR	0.5	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01662.30	CON	0.25	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01662.40	CON	0.5	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01662.50	SCR	0.5	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01662.60	SCR	0.5	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01662.70	VLV	0.5	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01662.71	SCR	0.5	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01662.72	OEL	0.5	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01662.80	SCR	0.5	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01662.90	CON	0.75	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01662.91	SCR	0.75	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01662.92	SCR	0.75	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01663.00	FLG	0.75	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01664.00	FLG	2	TOP OF PI	PICRIC AC	L	MONIT

FCC	RCRA CC	01665.00	FLG	2	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01666.00	FLG	2	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01666.10	FLG	2	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01666.20	SCR	0.5	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01666.30	VLV	0.5	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01666.40	SCR	0.5	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01666.50	SCR	0.5	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01666.60	CON	0.25	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA CC	01667.00	CON	24	TOP OF PI	PICRIC AC	L	MONIT
FCC	RCRA O	01675.00	FLG	8	S END OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01676.00	FLG	3	S END OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01676.10	CON	2	S END OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01676.20	SCR	2	S END OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01676.30	SCR	2	S END OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01677.00	SCR	1	S END OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01678.00	VLV	0.75	S END OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01678.10	SCR	0.75	S END OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01678.20	SCR	0.75	S END OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01678.30	SCR	1.5	S END OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01679.00	FLG	3	S END OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01680.00	SCR	1	S END OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01681.00	FLG	3	S END OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01682.00	VLV	3	S END OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01682.10	FLG	3	S END OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01682.20	FLG	3	S END OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01683.00	VLV	8	S END OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01683.10	FLG	8	S END OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01683.20	FLG	8	S END OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01684.00	SCR	0.75	S END OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01685.00	FLG	42	S END OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01686.00	FLG	36	S END OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01687.00	VLV	2	S END OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01687.10	FLG	2	S END OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01687.20	FLG	2	S END OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01688.00	CON	4	W SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01688.10	SCR	4	W SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01688.20	SCR	4	W SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01688.30	SCR	0.75	W SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01688.40	SCR	1	W SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01688.50	SCR	0.5	W SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01689.00	VLV	4	W SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01689.10	SCR	4	W SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01689.20	SCR	4	W SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01689.30	SCR	0.5	W SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01689.40	SCR	0.5	W SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01689.50	FLG	4	W SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01690.00	FLG	36	W SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01691.00	VLV	0.75	W SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01691.10	SCR	1	W SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01692.00	SCR	1	W SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01693.00	SCR	1	W SIDE OF	ANILINE 1(	H	MONIT

FCC	RCRA O	01693.10	CON	1	W SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01693.20	SCR	1	W SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01693.30	SCR	1	W SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01694.00	SCR	1	W SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01694.10	CON	1	W SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01694.20	SCR	1	W SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01694.30	SCR	1	W SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01695.00	FLG	42	NW SIDE I	ANILINE 1(	H	MONIT
FCC	RCRA O	01696.00	SCR	0.5	W SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01697.00	VLV	10	W SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01697.10	FLG	10	W SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01697.20	FLG	10	W SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01698.00	FLG	10	W SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01699.00	SCR	2	W SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01700.00	VLV	0.5	N SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01700.10	SCR	0.5	N SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01700.20	SCR	0.5	N SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01700.30	SCR	0.5	N SIDE OF	ANILINE 1(	H	MONIT
FCC	RCRA O	01701.00	SCR	2	NW SIDE I	ANILINE 1(	H	MONIT
FCC	RCRA O	01702.00	SCR	1	NW SIDE I	ANILINE 1(	H	MONIT
FCC	RCRA O	01702.10	CON	1	NW SIDE I	ANILINE 1(	H	MONIT
FCC	RCRA O	01702.20	SCR	1	NW SIDE I	ANILINE 1(	H	MONIT
FCC	RCRA O	01702.30	SCR	1	NW SIDE I	ANILINE 1(	H	MONIT
FCC	RCRA O	01703.00	SCR	1	NW SIDE I	ANILINE 1(	H	MONIT
FCC	RCRA O	01703.10	CON	1	NW SIDE I	ANILINE 1(	H	MONIT
FCC	RCRA O	01703.20	SCR	1	NW SIDE I	ANILINE 1(	H	MONIT
FCC	RCRA O	01703.30	SCR	1	NW SIDE I	ANILINE 1(	H	MONIT
FCC	RCRA O	01704.00	CON	4	N SIDE IN(	ANILINE 1(	H	MONIT
FCC	RCRA O	01704.10	SCR	4	N SIDE IN(	ANILINE 1(	H	MONIT
FCC	RCRA O	01704.20	SCR	4	N SIDE IN(	ANILINE 1(	H	MONIT
FCC	RCRA O	01704.30	SCR	1	N SIDE IN(	ANILINE 1(	H	MONIT
FCC	RCRA O	01704.40	SCR	0.5	N SIDE IN(	ANILINE 1(	H	MONIT
FCC	RCRA O	01705.00	VLV	4	N SIDE IN(	ANILINE 1(	H	MONIT
FCC	RCRA O	01705.10	SCR	4	N SIDE IN(	ANILINE 1(	H	MONIT
FCC	RCRA O	01705.20	SCR	4	N SIDE IN(	ANILINE 1(	H	MONIT
FCC	RCRA O	01705.30	SCR	0.5	N SIDE IN(	ANILINE 1(	H	MONIT
FCC	RCRA O	01705.40	SCR	0.5	N SIDE IN(	ANILINE 1(	H	MONIT
FCC	RCRA O	01705.50	FLG	4	N SIDE IN(	ANILINE 1(	H	MONIT
FCC	RCRA O	01706.00	SCR	1	N SIDE IN(	ANILINE 1(	H	MONIT
FCC	RCRA O	01707.00	SCR	1	N SIDE IN(	ANILINE 1(	H	MONIT
FCC	RCRA O	01708.00	FLG	8	N SIDE IN(	ANILINE 1(	H	MONIT
FCC	RCRA O	01709.00	FLG	32	N SIDE IN(	ANILINE 1(	H	MONIT
FCC	RCRA O	01710.00	CON	4	NE SIDE C	ANILINE 1(	H	MONIT
FCC	RCRA O	01710.10	SCR	4	NE SIDE C	ANILINE 1(	H	MONIT
FCC	RCRA O	01710.20	SCR	4	NE SIDE C	ANILINE 1(	H	MONIT
FCC	RCRA O	01710.30	SCR	1	NE SIDE C	ANILINE 1(	H	MONIT
FCC	RCRA O	01710.40	SCR	0.5	NE SIDE C	ANILINE 1(	H	MONIT
FCC	RCRA O	01711.00	VLV	4	NE SIDE C	ANILINE 1(	H	MONIT
FCC	RCRA O	01711.10	SCR	4	NE SIDE C	ANILINE 1(	H	MONIT
FCC	RCRA O	01711.20	SCR	4	NE SIDE C	ANILINE 1(	H	MONIT
FCC	RCRA O	01711.30	SCR	0.5	NE SIDE C	ANILINE 1(	H	MONIT

FCC	RCRA O	01711.40	SCR	0.5	NE SIDE C	ANILINE 1(	H	MONIT
FCC	RCRA O	01711.50	FLG	4	NE SIDE C	ANILINE 1(	H	MONIT
FCC	RCRA O	01712.00	FLG	32	NE SIDE C	ANILINE 1(	H	MONIT
FCC	RCRA O	01713.00	SCR	1	NE SIDE C	ANILINE 1(	H	MONIT
FCC	RCRA O	01713.10	CON	1	NE SIDE C	ANILINE 1(	H	MONIT
FCC	RCRA O	01713.20	SCR	1	NE SIDE C	ANILINE 1(	H	MONIT
FCC	RCRA O	01713.30	SCR	1	NE SIDE C	ANILINE 1(	H	MONIT
FCC	RCRA O	01714.00	SCR	1	NE SIDE C	ANILINE 1(	H	MONIT
FCC	RCRA O	01714.10	CON	1	NE SIDE C	ANILINE 1(	H	MONIT
FCC	RCRA O	01714.20	SCR	1	NE SIDE C	ANILINE 1(	H	MONIT
FCC	RCRA O	01714.30	SCR	1	NE SIDE C	ANILINE 1(	H	MONIT