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OCTOBER 5, 2016

MR AL TURNER
PLANT MANAGER
OCCIDENTAL CHEM CORP
1300 JARVIS ROAD
MOBILE AL 36614

**RE: DRAFT PERMIT
NPDES PERMIT NUMBER AL0003514**

Dear Mr. Turner:

Transmitted herein is a draft of the referenced permit.

We would appreciate your comments on the permit within **30 days** of the date of this letter. Please direct any comments of a technical or administrative nature to the undersigned.

By copy of this letter and the draft permit, we are also requesting comments within the same time frame from EPA.

Our records indicate that you are currently utilizing the Department's web-based electronic environmental (E2) reporting system for submittal of discharge monitoring reports (DMRs). Your E2 DMRs will automatically update on the effective date of this permit, if issued.

The Alabama Department of Environmental Management encourages you to voluntarily consider pollution prevention practices and alternatives at your facility. Pollution Prevention may assist you in complying with effluent limitations, and possibly reduce or eliminate monitoring requirements.

If you have questions regarding this permit or monitoring requirements, please contact Latoya Hall by e-mail at lahall@adem.alabama.gov or by phone at (334) 394-4366.

Sincerely,

A handwritten signature in black ink, appearing to be "SR", written over a circular stamp.

Scott Ramsey, Chief
Industrial Section
Industrial/Municipal Branch
Water Division

Enclosure: Draft Permit

pc via website: Montgomery Field Office
EPA Region IV
U.S. Fish & Wildlife Service
AL Historical Commission
Advisory Council on Historic Preservation
Department of Conservation and Natural Resources

Birmingham Branch
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
(205) 941-1603 (FAX)

Decatur Branch
2715 Sandlin Road, S.W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (FAX)



Mobile Branch
2204 Perimeter Road
Mobile, AL 36615-1131
(251) 450-3400
(251) 479-2593 (FAX)

Mobile-Coastal
3664 Dauphin Street, Suite B
Mobile, AL 36608
(251) 304-1176
(251) 304-1189 (FAX)



NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

PERMITTEE: OCCIDENTAL CHEMICAL CORPORATION

FACILITY LOCATION: 1300 JARVIS ROAD
MOBILE, AL 36614-1099

PERMIT NUMBER: AL0003514

RECEIVING WATERS: DSN001: CHICKASAW CREEK
DSN002-005: UNNAMED TRIBUTARY TO CHICKASAW CREEK (GALES
BRANCH)

In accordance with and subject to the provisions of the Federal Water Pollution Control Act, as amended, 33 U.S.C. §§1251-1388 (the "FWPCA"), the Alabama Water Pollution Control Act, as amended, Code of Alabama 1975, §§ 22-22-1 to 22-22-14 (the "AWPCA"), the Alabama Environmental Management Act, as amended, Code of Alabama 1975, §§22-22A-1 to 22-22A-17, and rules and regulations adopted thereunder, and subject further to the terms and conditions set forth in this permit, the Permittee is hereby authorized to discharge into the above-named receiving waters.

ISSUANCE DATE:

EFFECTIVE DATE:

EXPIRATION DATE:

Draft

Alabama Department of Environmental Management

**INDUSTRIAL SECTION
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT**

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ATTACHMENT: FORM 421 NON-COMPLIANCE NOTIFICATION FORM

PART I DISCHARGE LIMITATIONS, CONDITIONS, AND REQUIREMENTS

A. DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN0011: Treated stormwater from idled process areas, treated groundwater, storm water runoff associated with the production of sodium silicate and storm water and wash water from the terminal operations of sodium hydroxide. 3/ 4/

Such discharge shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>			<u>MONITORING REQUIREMENTS 1/</u>				
	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Daily Minimum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency 2/</u>	<u>Sample Type</u>	<u>Seasonal</u>
pH	-	-	6.0 S.U.	-	9.0 S.U.	Monthly	Grab	-
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Daily when Discharging	Calculated	-
Solids, Total Dissolved	-	REPORT lbs/day	-	-	-	Monthly	Grab	-
Mercury Total Recoverable 5/ 6/	0.0062 lbs/day	0.2866 lbs/day	-	-	-	Monthly	Grab	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

- 1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.
- 2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.
- 3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.
- 4/ To be sampled during a non-storm event.
- 5/ For the purpose of demonstration of compliance with this parameter, "Total" and "Total Recoverable" shall be considered equivalent.
- 6/ Mercury monitoring and limitation only applies when the facility is treating groundwater. When groundwater is not included, in lieu of monitoring the facility shall report NODI=9 or *9 on the DMR.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN001S: Treated stormwater from idled process areas, treated groundwater, storm water runoff associated with the production of sodium silicate and storm water and wash water from the terminal operations of sodium hydroxide. 3/ 4/ 5/

Such discharge shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>			<u>MONITORING REQUIREMENTS 1/</u>				
	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Daily Minimum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency 2/</u>	<u>Sample Type</u>	<u>Seasonal</u>
pH	-	-	REPORT S.U.	-	REPORT S.U.	Twice per Year	Grab	-
Oil & Grease	-	-	-	-	15 mg/l	Twice per Year	Grab	-
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Twice per Year	Calculated	-
Solids, Total Dissolved	-	REPORT lbs/day	-	-	-	Twice per Year	Grab	-
Mercury Total Recoverable 6/	REPORT lbs/day	REPORT lbs/day	-	-	-	Twice per Year	Grab	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

- 1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.
- 2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.
- 3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.
- 4/ See Part IV.B for Stormwater Measurement and Sampling Requirements.
- 5/ To be sampled during a storm event.
- 6/ For the purpose of demonstration of compliance with this parameter, "Total" and "Total Recoverable" shall be considered equivalent.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN0021:Non-contact cooling water, car wash wastewater, boiler/water softener blowdown, steam condensate and stormwater from idled process area secondary containment. 3/ 4/

Such discharge shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>			<u>MONITORING REQUIREMENTS 1/</u>				
	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Daily Minimum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency 2/</u>	<u>Sample Type</u>	<u>Seasonal</u>
Temperature, Water Deg. Fahrenheit	-	-	-	-	90 F	Monthly	Grab	-
pH	-	-	6.0 S.U.	-	9.0 S.U.	Monthly	Grab	-
Oil & Grease	-	-	-	-	15 mg/l	Monthly	Grab	-
Phosphorus, Total (As P)	-	-	-	-	REPORT mg/l	Monthly	Grab	-
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Monthly	Calculated	-
Solids, Total Dissolved	-	-	-	-	REPORT mg/l	Monthly	Grab	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

- 1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.
- 2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.
- 3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.
- 4/ To be sampled during a non-storm event.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN002S:Non-contact cooling water, car wash wastewater, boiler/water softener blowdown, steam condensate and stormwater from idled process area secondary containment. 3/ 4/ 5/

Such discharge shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>			<u>MONITORING REQUIREMENTS 1/</u>				
	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Daily Minimum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency 2/</u>	<u>Sample Type</u>	<u>Seasonal</u>
pH	-	-	REPORT S.U.	-	REPORT S.U.	Twice per Year	Grab	-
Oil & Grease	-	-	-	-	15 mg/l	Twice per Year	Grab	-
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Twice per Year	Calculated	-
Solids, Total Dissolved	-	-	-	-	REPORT mg/l	Twice per Year	Grab	-
Mercury Total Recoverable 6/	-	-	-	-	REPORT mg/l	Twice per Year	Grab	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

- 1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.
- 2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.
- 3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.
- 4/ See Part IV.B for Stormwater Measurement and Sampling Requirements.
- 5/ To be sampled during a storm event.
- 6/ For the purpose of demonstration of compliance with this parameter, "Total" and "Total Recoverable" shall be considered equivalent.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN003Y: Storm water runoff associated with the production of sodium silicate and the storage of sodium hydroxide. 3/ 4/

Such discharge shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>			<u>MONITORING REQUIREMENTS 1/</u>				
	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Daily Minimum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency 2/</u>	<u>Sample Type</u>	<u>Seasonal</u>
pH	-	-	REPORT S.U.	-	REPORT S.U.	Annually	Grab	-
Oil & Grease	-	-	-	-	15 mg/l	Annually	Grab	-
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Annually	Measured	-
Solids, Total Dissolved	-	-	-	-	REPORT mg/l	Annually	Grab	-
Mercury Total Recoverable 5/	-	-	-	-	REPORT mg/l	Annually	Grab	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

- 1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.
- 2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.
- 3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.
- 4/ See Part IV.B for Stormwater Measurement and Sampling Requirements.
- 5/ For the purpose of demonstration of compliance with this parameter, "Total" and "Total Recoverable" shall be considered equivalent.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN004S: Storm water runoff associated with the production of sodium silicate and the storage of sodium hydroxide. 3/ 4/

Such discharge shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>			<u>MONITORING REQUIREMENTS 1/</u>				
	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Daily Minimum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency 2/</u>	<u>Sample Type</u>	<u>Seasonal</u>
pH	-	-	REPORT S.U.	-	REPORT S.U.	Twice per Year	Grab	-
Oil & Grease	-	-	-	-	15 mg/l	Twice per Year	Grab	-
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Twice per Year	Measured	-
Solids, Total Dissolved	-	-	-	-	REPORT mg/l	Twice per Year	Grab	-
Mercury Total Recoverable 5/	-	-	-	-	REPORT mg/l	Twice per Year	Grab	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

- 1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.
- 2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.
- 3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.
- 4/ See Part IV.B for Stormwater Measurement and Sampling Requirements.
- 5/ For the purpose of demonstration of compliance with this parameter, "Total" and "Total Recoverable" shall be considered equivalent.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN005Y:Storm water runoff associated with the production of sodium silicate and the storage of sodium hydroxide. 3/ 4/

Such discharge shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>			<u>MONITORING REQUIREMENTS 1/</u>				
	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Daily Minimum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency 2/</u>	<u>Sample Type</u>	<u>Seasonal</u>
pH	-	-	REPORT S.U.	-	REPORT S.U.	Annually	Grab	-
Oil & Grease	-	-	-	-	15 mg/l	Annually	Grab	-
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Annually	Measured	-
Solids, Total Dissolved	-	-	-	-	REPORT mg/l	Annually	Grab	-
Mercury Total Recoverable 5/	-	-	-	-	REPORT mg/l	Annually	Grab	-

THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

- 1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.
- 2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.
- 3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.
- 4/ See Part IV.B for Stormwater Measurement and Sampling Requirements.
- 5/ For the purpose of demonstration of compliance with this parameter, "Total" and "Total Recoverable" shall be considered equivalent.

B. DISCHARGE MONITORING AND RECORD KEEPING REQUIREMENTS

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge and shall be in accordance with the provisions of this permit.

2. Test Procedures

For the purpose of reporting and compliance, permittees shall use one of the following procedures:

a. For parameters with an EPA established Minimum Level (ML), report the measured value if the analytical result is at or above the ML and report "0" for values below the ML. Test procedures for the analysis of pollutants shall conform to 40 CFR Part 136 and guidelines published pursuant to Section 304(h) of the FWPCA, 33 U.S.C. Section 1314(h). If more than one method for analysis of a substance is approved for use, a method having a minimum level lower than the permit limit shall be used. If the minimum level of all methods is higher than the permit limit, the method having the lowest minimum level shall be used and a report of less than the minimum level shall be reported as zero and will constitute compliance; however, should EPA approve a method with a lower minimum level during the term of this permit the permittee shall use the newly approved method.

b. For pollutants parameters without an established ML, an interim ML may be utilized. The interim ML shall be calculated as 3.18 times the Method Detection Level (MDL) calculated pursuant to 40 CFR Part 136, Appendix B.

Permittees may develop an effluent matrix-specific ML, where an effluent matrix prevents attainment of the established ML. However, a matrix specific ML shall be based upon proper laboratory method and technique. Matrix-specific MLs must be approved by the Department, and may be developed by the permittee during permit issuance, reissuance, modification, or during compliance schedule.

In either case the measured value should be reported if the analytical result is at or above the ML and "0" reported for values below the ML.

c. For parameters without an EPA established ML, interim ML, or matrix-specific ML, a report of less than the detection limit shall constitute compliance if the detection limit of all analytical methods is higher than the permit limit using the most sensitive EPA approved method. For the purpose of calculating a monthly average, "0" shall be used for values reported less than the detection limit.

The Minimum Level utilized for procedures A and B above shall be reported on the permittee's DMR. When an EPA approved test procedure for analysis of a pollutant does not exist, the Director shall approve the procedure to be used.

3. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. The facility name and location, point source number, date, time and exact place of sampling;
- b. The name(s) of person(s) who obtained the samples or measurements;
- c. The dates and times the analyses were performed;
- d. The name(s) of the person(s) who performed the analyses;
- e. The analytical techniques or methods used, including source of method and method number; and
- f. The results of all required analyses.

4. Records Retention and Production

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the above reports or the application for this permit, for a period of at least three years from the date of the sample measurement, report or application. This period may be extended by request of the Director at any time. If litigation or other enforcement action, under the AWPCA and/or the FWPCA, is ongoing which involves any of the above records, the records shall be kept until the litigation is resolved. Upon the written request of the Director or his designee, the permittee shall provide the Director with a copy of any record required to be retained by this paragraph. Copies of these records shall not be submitted unless requested.

All records required to be kept for a period of three years shall be kept at the permitted facility or an alternate location approved by the Department in writing and shall be available for inspection.

5. Monitoring Equipment and Instrumentation

All equipment and instrumentation used to determine compliance with the requirements of this permit shall be installed, maintained, and calibrated in accordance with the manufacturer's instructions or, in the absence of manufacturer's instructions, in accordance with accepted practices. The permittee shall develop and maintain quality assurance procedures to ensure proper operation and maintenance of all equipment and instrumentation. The quality assurance procedures shall include the proper use, maintenance, and installation, when appropriate, of monitoring equipment at the plant site.

C. DISCHARGE REPORTING REQUIREMENTS

1. Reporting of Monitoring Requirements

a. The permittee shall conduct the required monitoring in accordance with the following schedule:

MONITORING REQUIRED MORE FREQUENTLY THAN MONTHLY AND MONTHLY shall be conducted during the first full month following the effective date of coverage under this permit and every month thereafter.

QUARTERLY MONITORING shall be conducted at least once during each calendar quarter. Calendar quarters are the periods of January through March, April through June, July through September, and October through December. The permittee shall conduct the quarterly monitoring during the first complete calendar quarter following the effective date of this permit and is then required to monitor once during each quarter thereafter. Quarterly monitoring may be done anytime during the quarter, unless restricted elsewhere in this permit, but it should be submitted with the last DMR due for the quarter, i.e., (March, June, September and December DMR's).

SEMIANNUAL MONITORING shall be conducted at least once during the period of January through June and at least once during the period of July through December. The permittee shall conduct the semiannual monitoring during the first complete calendar semiannual period following the effective date of this permit and is then required to monitor once during each semiannual period thereafter. Semiannual monitoring may be done anytime during the semiannual period, unless restricted elsewhere in this permit, but it should be submitted with the last DMR for the month of the semiannual period, i.e. (June and December DMR's).

ANNUAL MONITORING shall be conducted at least once during the period of January through December. The permittee shall conduct the annual monitoring during the first complete calendar annual period following the effective date of this permit and is then required to monitor once during each annual period thereafter. Annual monitoring may be done anytime during the year, unless restricted elsewhere in this permit, but it should be submitted with the December DMR.

b. The permittee shall submit discharge monitoring reports (DMRs) on the forms provided by the Department and in accordance with the following schedule:

REPORTS OF MORE FREQUENTLY THAN MONTHLY AND MONTHLY TESTING shall be submitted on a **monthly** basis. The first report is due on the **28th day of (MONTH, YEAR)**. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period.

REPORTS OF QUARTERLY TESTING shall be submitted on a **quarterly** basis. The first report is due on the **28th day of [Month, Year]**. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period.

REPORTS OF SEMIANNUAL TESTING shall be submitted on a semiannual basis. The reports are due on the 28th day of JANUARY and the 28th day of JULY. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period.

REPORTS OF ANNUAL TESTING shall be submitted on an annual basis. The first report is due on the 28th day of JANUARY. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period.

c. Except as allowed by Provision I.C.1.c.(1) or (2), the permittee shall submit all Discharge Monitoring Reports (DMRs) required by Provision I.C.1.b by utilizing the Department's web-based Electronic Environmental (E2) Reporting System.

(1) If the permittee is unable to complete the electronic submittal of DMR data due to technical problems originating with the Department's E2 Reporting system (this could include entry/submittal issues with an entire set of DMRs or individual parameters), the permittee is not relieved of their obligation to submit DMR data to the Department by the date specified in Provision I.C.1.b, unless otherwise directed by the Department.

If the E2 Reporting System is down on the 28th day of the month in which the DMR is due or is down for an extended period of time, as determined by the Department, when a DMR is required to be submitted, the permittee may submit the data in an alternate manner and format acceptable to the Department. Preapproved alternate acceptable methods include faxing, e-mailing, mailing, or hand-delivery of data such that they are received by the required reporting date. Within 5 calendar days of the E2 Reporting System resuming operation, the permittee shall enter the data into the E2 Reporting System, unless an alternate timeframe is approved by the Department. An attachment should be included with the E2 DMR submittal verifying the original submittal date (date of the fax, copy of the dated e-mail, or hand-delivery stamped date), if applicable.

- (2) The permittee may submit a request to the Department for a temporary electronic reporting waiver for DMR submittals. The waiver request should include the permit number; permittee name; facility/site name; facility address; name, address, and contact information for the responsible official or duly authorized representative; a detailed statement regarding the basis for requesting such a waiver; and the duration for which the waiver is requested. Approved electronic reporting waivers are not transferrable.

Permittees with an approved electronic reporting waiver for DMRs may submit hard copy DMRs for the period that the approved electronic reporting waiver request is effective. The permittee shall submit the Department-approved DMR forms to the address listed in Provision I.C.1.e.

- (3) If a permittee is allowed to submit a hard copy DMR, the DMR must be legible and bear an original signature. Photo and electronic copies of the signature are not acceptable and shall not satisfy the reporting requirements of this permit.
- (4) If the permittee, using approved analytical methods as specified in Provision I.B.2, monitors any discharge from a point source for a limited substance identified in Provision I.A. of this permit more frequently than required by this permit, the results of such monitoring shall be included in the calculation and reporting of values on the DMR and the increased frequency shall be indicated on the DMR.
- (5) In the event no discharge from a point source identified in Provision I.A. of this permit and described more fully in the permittee's application occurs during a monitoring period, the permittee shall report "No Discharge" for such period on the appropriate DMR.

- d. All reports and forms required to be submitted by this permit, the AWPCA and the Department's Rules, shall be electronically signed (or, if allowed by the Department, traditionally signed) by a "responsible official" of the permittee as defined in ADEM Administrative Code Rule 335-6-5-.14 or a "duly authorized representative" of such official as defined in ADEM Administrative Code Rule 335-6-5-.14 and shall bear the following 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 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."

- e. Discharge Monitoring Reports required by this permit, the AWPCA, and the Department's Rules that are being submitted in hard copy shall be addressed to:

**Alabama Department of Environmental Management
Permits and Services Division
Environmental Data Section
Post Office Box 301463
Montgomery, Alabama 36130-1463**

Certified and Registered Mail containing Discharge Monitoring Reports shall be addressed to:

**Alabama Department of Environmental Management
Permits and Services Division
Environmental Data Section
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2400**

- f. All other correspondence and reports required to be submitted by this permit, the AWPCA, and the Department's Rules shall be addressed to:

Alabama Department of Environmental Management

**Water Division
Post Office Box 301463
Montgomery, Alabama 36130-1463**

Certified and Registered Mail shall be addressed to:

**Alabama Department of Environmental Management
Water Division
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2400**

- g. If this permit is a re-issuance, then the permittee shall continue to submit DMRs in accordance with the requirements of their previous permit until such time as DMRs are due as discussed in Part I.E.1.b above.

1. Noncompliance Notification

a. 24-Hour Noncompliance Reporting

The permittee shall report to the Director, within 24-hours of becoming aware of the noncompliance, any noncompliance which may endanger health or the environment. This shall include but is not limited to the following circumstances:

- (1) does not comply with any daily minimum or maximum discharge limitation for an effluent characteristic specified in Provision I. A. of this permit which is denoted by an "(X)";
- (2) threatens human health or welfare, fish or aquatic life, or water quality standards;
- (3) does not comply with an applicable toxic pollutant effluent standard or prohibition established under Section 307(a) of the FWPCA, 33 U.S.C. Section 1317(a);
- (4) contains a quantity of a hazardous substance which has been determined may be harmful to public health or welfare under Section 311(b)(4) of the FWPCA, 33 U.S.C. Section 1321(b)(4);
- (5) exceeds any discharge limitation for an effluent characteristic as a result of an unanticipated bypass or upset; and
- (6) is an unpermitted direct or indirect discharge of a pollutant to a water of the state (unpermitted discharges properly reported to the Department under any other requirement are not required to be reported under this provision).

The permittee shall orally report the occurrence and circumstances of such discharge to the Director within 24-hours after the permittee becomes aware of the occurrence of such discharge. In addition to the oral report, the permittee shall submit to the Director or Designee a written report as provided in Part I.C.2.c no later than five (5) days after becoming aware of the occurrence of such discharge.

- b. If for any reason, the permittee's discharge does not comply with any limitation of this permit, the permittee shall submit to the Director or Designee a written report as provided in Part I.C.2.c below, such report shall be submitted with the next Discharge Monitoring Report required to be submitted by Part I.C.1 of this permit after becoming aware of the occurrence of such noncompliance.
- c. Any written report required to be submitted to the Director or Designee by Part I.C.2 a. or b. shall be submitted using a copy of the Noncompliance Notification Form provided with this permit and shall include the following information:
- (1) A description of the discharge and cause of noncompliance;
 - (2) The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue; and
 - (3) A description of the steps taken and/or being taken to reduce or eliminate the noncomplying discharge and to prevent its recurrence.

D. OTHER REPORTING AND NOTIFICATION REQUIREMENTS

I. Anticipated Noncompliance

The permittee shall give the Director written advance notice of any planned changes or other circumstances regarding a facility which may result in noncompliance with permit requirements.

2. Termination of Discharge

The permittee shall notify the Director, in writing, when all discharges from any point source(s) identified in Provision 1. A. of this permit have permanently ceased. This notification shall serve as sufficient cause for instituting procedures for modification or termination of the permit.

3. Updating Information

- a. The permittee shall inform the Director of any change in the permittee's mailing address, telephone number or in the permittee's designation of a facility contact or office having the authority and responsibility to prevent and abate violations of the AWPCA, the Department's Rules, and the terms and conditions of this permit, in writing, no later than ten (10) days after such change. Upon request of the Director or his designee, the permittee shall furnish the Director with an update of any information provided in the permit application.
- b. If the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information with a written explanation for the mistake and/or omission.

4. Duty to Provide Information

The permittee shall furnish to the Director, within a reasonable time, any information which the Director or his designee may request to determine whether cause exists for modifying, revoking and re-issuing, suspending, or terminating this permit, in whole or in part, or to determine compliance with this permit.

5. Cooling Water and Boiler Water Additives

- a. The permittee shall notify the Director in writing not later than thirty (30) days prior to instituting the use of any biocide corrosion inhibitor or chemical additive in a cooling or boiler system, not identified in the application for this permit, from which discharge is allowed by this permit. Notification is not required for additives that do not contain a heavy metal(s) as an active ingredient and that pass through a wastewater treatment system prior to discharge nor is notification required for additives that should not reasonably be expected to cause the cooling water or boiler water to exhibit toxicity as determined by analysis of manufacturer's data or testing by the permittee. Such notification shall include:
 - (1) name and general composition of biocide or chemical;
 - (2) 96-hour median tolerance limit data for organisms representative of the biota of the waterway into which the discharge will ultimately reach;
 - (2) quantities to be used;
 - (3) frequencies of use;
 - (4) proposed discharge concentrations; and
 - (6) EPA registration number, if applicable.
- b. The use of a biocide or additive containing tributyl tin, tributyl tin oxide, zinc, chromium or related compounds in cooling or boiler system(s), from which a discharge regulated by this permit occurs, is prohibited except as exempted below. The use of a biocide or additive containing zinc, chromium or related compounds may be used in special circumstances if (1) the permit contains limits for these substances, or (2) the applicant demonstrates during the application process that the use of zinc, chromium or related compounds as a biocide or additive will not pose a reasonable potential to violate the applicable State water quality standards for these substances. The use of any additive, not identified in this permit or in the application for this permit or not exempted from notification under this permit is prohibited, prior to a determination by the Department that permit modification to control discharge of the additive is not required or prior to issuance of a permit modification controlling discharge of the additive.

6. Permit Issued Based On Estimated Characteristics

- a. If this permit was issued based on estimates of the characteristics of a process discharge reported on an EPA NPDES Application Form 2D (EPA Form 3510-2D), the permittee shall complete and submit an EPA NPDES Application Form 2C (EPA Form 3510-2C) no later than two years after the date that discharge begins. Sampling required for completion of the Form 2C shall occur when a discharge(s) from the process(s) causing the new or increased discharge is occurring. If this permit was issued based on estimates concerning the composition of a stormwater discharge(s), the permittee shall perform the sampling required by EPA NPDES Application Form 2F (EPA Form 3510-2F) no later than one year after the industrial activity generating the stormwater discharge has been fully initiated.

- b. This permit shall be reopened if required to address any new information resulting from the completion and submittal of the Form 2C and or 2F.

E. SCHEDULE OF COMPLIANCE

1. The permittee shall achieve compliance with the discharge limitations specified in Provision I. A. in accordance with the following schedule:

COMPLIANCE SHALL BE ATTAINED ON THE EFFECTIVE DATE OF THIS PERMIT

2. No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

PART II OTHER REQUIREMENTS, RESPONSIBILITIES, AND DUTIES

A. OPERATIONAL AND MANAGEMENT REQUIREMENTS

1. Facilities 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 the permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities only when necessary to achieve compliance with the conditions of the permit.

2. Best Management Practices

- a. Dilution water shall not be added to achieve compliance with discharge limitations except when the Director or his designee has granted prior written authorization for dilution to meet water quality requirements.
- b. The permittee shall prepare, implement, and maintain a Spill Prevention, Control and Countermeasures (SPCC) Plan in accordance with 40 C.F.R. Section 112 if required thereby.
- c. The permittee shall prepare, submit for approval and implement a Best Management Practices (BMP) Plan for containment of any or all process liquids or solids, in a manner such that these materials do not present a significant potential for discharge, if so required by the Director or his designee. When submitted and approved, the BMP Plan shall become a part of this permit and all requirements of the BMP Plan shall become requirements of this permit.

3. Spill Prevention, Control, and Management

The permittee shall provide spill prevention, control, and/or management sufficient to prevent any spills of pollutants from entering a water of the state or a publicly or privately owned treatment works. Any containment system used to implement this requirement shall be constructed of materials compatible with the substance(s) contained and which shall prevent the contamination of groundwater and such containment system shall be capable of retaining a volume equal to 110 percent of the capacity of the largest tank for which containment is provided.

B. OTHER RESPONSIBILITIES

1. Duty to Mitigate Adverse Impacts

The permittee shall promptly take all reasonable steps to mitigate and minimize or prevent any adverse impact on human health or the environment resulting from noncompliance with any discharge limitation specified in Provision I. A. of this permit, including such accelerated or additional monitoring of the discharge and/or the receiving waterbody as necessary to determine the nature and impact of the noncomplying discharge.

2. Right of Entry and Inspection

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

- a. enter upon the permittee's premises where a regulated facility or activity or point source is located or conducted, or where records must be kept under the conditions of the permit;
- b. have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
- c. inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under the permit; and
- d. sample or monitor, for the purposes of assuring permit compliance or as otherwise authorized by the AWPCA, any substances or parameters at any location.

C. BYPASS AND UPSET

1. Bypass

- a. Any bypass is prohibited except as provided in b. and c. below:
- b. A bypass is not prohibited if:
 - (1) It does not cause any discharge limitation specified in Provision I. A. of this permit to be exceeded;

- (2) It enters the same receiving stream as the permitted outfall; and
 - (3) It is necessary for essential maintenance of a treatment or control facility or system to assure efficient operation of such facility or system.
 - c. A bypass is not prohibited and need not meet the discharge limitations specified in Provision I. A. of this permit if:
 - (1) It is unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (2) There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime (this condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance); and
 - (3) The permittee submits a written request for authorization to bypass to the Director at least ten (10) days prior to the anticipated bypass (if possible), the permittee is granted such authorization, and the permittee complies with any conditions imposed by the Director to minimize any adverse impact on human health or the environment resulting from the bypass.
 - d. The permittee has the burden of establishing that each of the conditions of Provision II.C.1.b. or c. have been met to qualify for an exception to the general prohibition against bypassing contained in a. and an exemption, where applicable, from the discharge limitations specified in Provision I. A. of this permit.
2. Upset
 - a. A discharge which results from an upset need not meet the discharge limitations specified in Provision I. A. of this permit if:
 - (1) No later than 24-hours after becoming aware of the occurrence of the upset, the permittee orally reports the occurrence and circumstances of the upset to the Director or his designee; and
 - (2) No later than five (5) days after becoming aware of the occurrence of the upset, the permittee furnishes the Director with evidence, including properly signed, contemporaneous operating logs, or other relevant evidence, demonstrating that (i) an upset occurred; (ii) the permittee can identify the specific cause(s) of the upset; (iii) the permittee's facility was being properly operated at the time of the upset; and (iv) the permittee promptly took all reasonable steps to minimize any adverse impact on human health or the environment resulting from the upset.
 - b. The permittee has the burden of establishing that each of the conditions of Provision II. C.2.a. of this permit have been met to qualify for an exemption from the discharge limitations specified in Provision I.A. of this permit.

D. DUTY TO COMPLY WITH PERMIT, RULES, AND STATUTES

1. Duty to Comply
 - a. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the AWPCA and the FWPCA and is grounds for enforcement action, for permit termination, revocation and reissuance, suspension, modification; or denial of a permit renewal application.
 - b. The necessity to halt or reduce production or other activities in order to maintain compliance with the conditions of the permit shall not be a defense for a permittee in an enforcement action.
 - c. The discharge of a pollutant from a source not specifically identified in the permit application for this permit and not specifically included in the description of an outfall in this permit is not authorized and shall constitute noncompliance with this permit.
 - d. The permittee shall take all reasonable steps, including cessation of production or other activities, to minimize or prevent any violation of this permit or to minimize or prevent any adverse impact of any permit violation.
 - e. Nothing in this permit shall be construed to preclude and negate the permittee's responsibility or liability to apply for, obtain, or comply with other ADEM, Federal, State, or Local Government permits, certifications, licenses, or other approvals.
2. Removed Substances

Solids, sludges, filter backwash, or any other pollutant or other waste removed in the course of treatment or control of wastewaters shall be disposed of in a manner that complies with all applicable Department Rules.

3. Loss or Failure of Treatment Facilities

Upon the loss or failure of any treatment facilities, including but not limited to the loss or failure of the primary source of power of the treatment facility, the permittee shall, where necessary to maintain compliance with the discharge limitations specified in Provision I. A. of this permit, or any other terms or conditions of this permit, cease, reduce, or otherwise control production and/or all discharges until treatment is restored. If control of discharge during loss or failure of the primary source of power is to be accomplished by means of alternate power sources, standby generators, or retention of inadequately treated effluent, the permittee must furnish to the Director within six months a certification that such control mechanisms have been installed.

4. Compliance with Statutes and Rules

- a. This permit has been issued under ADEM Administrative Code, Chapter 335-6-6. All provisions of this chapter, that are applicable to this permit, are hereby made a part of this permit. A copy of this chapter may be obtained for a small charge from the Office of General Counsel, Alabama Department of Environmental Management, 1400 Coliseum Blvd., Montgomery, AL 36130.
- b. This permit does not authorize the noncompliance with or violation of any Laws of the State of Alabama or the United States of America or any regulations or rules implementing such laws. FWPCA, 33 U.S.C. Section 1319, and Code of Alabama 1975, Section 22-22-14.

E. PERMIT TRANSFER, MODIFICATION, SUSPENSION, REVOCATION, AND REISSUANCE

1. Duty to Reapply or Notify of Intent to Cease Discharge

- a. If the permittee intends to continue to discharge beyond the expiration date of this permit, the permittee shall file a complete permit application for reissuance of this permit at least 180 days prior to its expiration. If the permittee does not intend to continue discharge beyond the expiration of this permit, the permittee shall submit written notification of this intent which shall be signed by an individual meeting the signatory requirements for a permit application as set forth in ADEM Administrative Code Rule 335-6-6-.09.
- b. Failure of the permittee to apply for reissuance at least 180 days prior to permit expiration will void the automatic continuation of the expiring permit provided by ADEM Administrative Code Rule 335-6-6-.06 and should the permit not be reissued for any reason any discharge after expiration of this permit will be an unpermitted discharge.

2. Change in Discharge

- a. The permittee shall apply for a permit modification at least 180 days in advance of any facility expansion, production increase, process change, or other action that could result in the discharge of additional pollutants or increase the quantity of a discharged pollutant such that existing permit limitations would be exceeded or that could result in an additional discharge point. This requirement applies to pollutants that are or that are not subject to discharge limitations in this permit. No new or increased discharge may begin until the Director has authorized it by issuance of a permit modification or a reissued permit.
- b. The permittee shall notify the Director as soon as it is known or there is reason to believe:
 - (1) That any activity has occurred or will occur which would result in the discharge on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:
 - (a) one hundred micrograms per liter;
 - (b) two hundred micrograms per liter for acrolein and acrylonitrile; five hundred micrograms per liter for 2,4-dinitrophenol and for 2-methyl-4,6-dini-trophenol; and one milligram per liter for antimony;
 - (c) five times the maximum concentration value reported for that pollutant in the permit application; or
 - (2) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:
 - (a) five hundred micrograms per liter;
 - (b) one milligram per liter for antimony;
 - (c) ten times the maximum concentration value reported for that pollutant in the permit application.

3. Transfer of Permit

This permit may not be transferred or the name of the permittee changed without notice to the Director and subsequent modification or revocation and reissuance of the permit to identify the new permittee and to incorporate any other changes as may be required under the FWPCA or AWPCA. In the case of a change in name, ownership or control of the permittee's premises only, a request for permit modification in a format acceptable to the Director is required at least 30 days prior to the change. In the case of a change in name, ownership or control of the permittee's premises accompanied by a change or proposed change in effluent characteristics, a complete permit application is required to be submitted to the Director at least 180 days prior to the change. Whenever the Director is notified of a change in name, ownership or control, he may decide not to modify the existing permit and require the submission of a new permit application.

4. Permit Modification and Revocation

a. This permit may be modified or revoked and reissued, in whole or in part, during its term for cause, including but not limited to, the following:

- (1) If cause for termination under Provision II. E. 5. of this permit exists, the Director may choose to revoke and reissue this permit instead of terminating the permit;
- (2) If a request to transfer this permit has been received, the Director may decide to revoke and reissue or to modify the permit; or
- (3) If modification or revocation and reissuance is requested by the permittee and cause exists, the Director may grant the request.

b. This permit may be modified during its term for cause, including but not limited to, the following:

- (1) If cause for termination under Provision II. E. 5. of this permit exists, the Director may choose to modify this permit instead of terminating this permit;
- (2) There are material and substantial alterations or additions to the facility or activity generating wastewater which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit;
- (3) The Director has received new information that was not available at the time of permit issuance and that would have justified the application of different permit conditions at the time of issuance;
- (4) A new or revised requirement(s) of any applicable standard or limitation is promulgated under Sections 301(b)(2)(C), (D), (E), and (F), and 307(a)(2) of the FWPCA;
- (5) Errors in calculation of discharge limitations or typographical or clerical errors were made;
- (6) To the extent allowed by ADEM Administrative Code, Rule 335-6-6-.17, when the standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued;
- (7) To the extent allowed by ADEM Administrative Code, Rule 335-6-6-.17, permits may be modified to change compliance schedules;
- (8) To agree with a granted variance under 301(c), 301(g), 301(h), 301(k), or 316(a) of the FWPCA or for fundamentally different factors;
- (9) To incorporate an applicable 307(a) FWPCA toxic effluent standard or prohibition;
- (10) When required by the reopener conditions in this permit;
- (11) When required under 40 CFR 403.8(e) (compliance schedule for development of pretreatment program);
- (12) Upon failure of the state to notify, as required by Section 402(b)(3) of the FWPCA, another state whose waters may be affected by a discharge permitted by this permit;
- (13) When required to correct technical mistakes, such as errors in calculation, or mistaken interpretations of law made in determining permit conditions; or
- (14) When requested by the permittee and the Director determines that the modification has cause and will not result in a violation of federal or state law, regulations or rules.

5. Permit Termination

This permit may be terminated during its term for cause, including but not limited to, the following:

- a. Violation of any term or condition of this permit;
- b. The permittee's misrepresentation or failure to disclose fully all relevant facts in the permit application or during the permit issuance process or the permittee's misrepresentation of any relevant facts at any time;
- c. Materially false or inaccurate statements or information in the permit application or the permit;
- d. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;
- e. The permittee's discharge threatens human life or welfare or the maintenance of water quality standards;
- f. Permanent closure of the facility generating the wastewater permitted to be discharged by this permit or permanent cessation of wastewater discharge;
- g. New or revised requirements of any applicable standard or limitation that is promulgated under Sections 301(b)(2)(C), (D), (E), and (F), and 307(a)(2) of the FWPCA that the Director determines cannot be complied with by the permittee; or
- h. Any other cause allowed by the ADEM Administrative Code, Chapter 335-6-6.

6. Permit Suspension

This permit may be suspended during its term for noncompliance until the permittee has taken action(s) necessary to achieve compliance.

7. Request for Permit Action Does Not Stay Any Permit Requirement

The filing of a request by the permittee for modification, suspension or revocation of this permit, in whole or in part, does not stay any permit term or condition.

F. COMPLIANCE WITH TOXIC POLLUTANT STANDARD OR PROHIBITION

If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the FWPCA, 33 U.S.C. Section 1317(a), for a toxic pollutant discharged by the permittee and such standard or prohibition is more stringent than any discharge limitation on the pollutant specified in Provision I. A. of this permit, or controls a pollutant not limited in Provision I. A. of this permit, this permit shall be modified to conform to the toxic pollutant effluent standard or prohibition and the permittee shall be notified of such modification. If this permit has not been modified to conform to the toxic pollutant effluent standard or prohibition before the effective date of such standard or prohibition, the permittee shall attain compliance with the requirements of the standard or prohibition within the time period required by the standard or prohibition and shall continue to comply with the standard or prohibition until this permit is modified or reissued.

G. DISCHARGE OF WASTEWATER GENERATED BY OTHERS

The discharge of wastewater, generated by any process, facility, or by any other means not under the operational control of the permittee or not identified in the application for this permit or not identified specifically in the description of an outfall in this permit is not authorized by this permit.

PART III OTHER PERMIT CONDITIONS

A. CIVIL AND CRIMINAL LIABILITY

1. Tampering

Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained or performed under the permit shall, upon conviction, be subject to penalties as provided by the AWPCA.

2. False Statements

Any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be subject to penalties as provided by the AWPCA.

3. Permit Enforcement

a. Any NPDES permit issued or reissued by the Department is a permit for the purpose of the AWPCA and the FWPCA and as such any terms, conditions, or limitations of the permit are enforceable under state and federal law.

b. Any person required to have a NPDES permit pursuant to ADEM Administrative Code Chapter 335-6-6 and who discharges pollutants without said permit, who violates the conditions of said permit, who discharges pollutants in a manner not authorized by the permit, or who violates applicable orders of the Department or any applicable rule or standard of the Department, is subject to any one or combination of the following enforcement actions under applicable state statutes.

(1) An administrative order requiring abatement, compliance, mitigation, cessation, clean-up, and/or penalties;

(2) An action for damages;

(3) An action for injunctive relief; or

(4) An action for penalties.

c. If the permittee is not in compliance with the conditions of an expiring or expired permit the Director may choose to do any or all of the following provided the permittee has made a timely and complete application for reissuance of the permit:

(1) initiate enforcement action based upon the permit which has been continued;

(2) issue a notice of intent to deny the permit reissuance. If the permit is denied, the owner or operator would then be required to cease the activities authorized by the continued permit or be subject to enforcement action for operating without a permit;

(3) reissue the new permit with appropriate conditions; or

(4) take other actions authorized by these rules and AWPCA.

4. Relief from Liability

Except as provided in Provision II.C.1 (Bypass) and Provision II.C.2 (Upset), nothing in this permit shall be construed to relieve the permittee of civil or criminal liability under the AWPCA or FWPCA for noncompliance with any term or condition of this permit.

B. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties to which the permittee is or may be subject under Section 311 of the FWPCA, 33 U.S.C. Section 1321.

C. PROPERTY AND OTHER RIGHTS

This permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, trespass, or any infringement of federal, state, or local laws or regulations, nor does it authorize or approve the construction of any physical structures or facilities or the undertaking of any work in any waters of the state or of the United States.

D. AVAILABILITY OF REPORTS

Except for data determined to be confidential under Code of Alabama 1975, Section 22-22-9(c), all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. Effluent data shall not be considered confidential.

E. EXPIRATION OF PERMITS FOR NEW OR INCREASED DISCHARGES

1. If this permit was issued for a new discharger or new source, this permit shall expire eighteen months after the issuance date if construction of the facility has not begun during the eighteen-month period.
2. If this permit was issued or modified to allow the discharge of increased quantities of pollutants to accommodate the modification of an existing facility and if construction of this modification has not begun during the eighteen month period after issuance of this permit or permit modification, this permit shall be modified to reduce the quantities of pollutants allowed to be discharged to those levels that would have been allowed if the modification of the facility had not been planned.
3. Construction has begun when the owner or operator has:
 - a. begun, or caused to begin as part of a continuous on-site construction program:
 - (1) any placement, assembly, or installation of facilities or equipment; or
 - (2) significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or
 - b. entered into a binding contractual obligation for the purpose of placement, assembly, or installation of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under the paragraph. The entering into a lease with the State of Alabama for exploration and production of hydrocarbons shall also be considered beginning construction.

F. COMPLIANCE WITH WATER QUALITY STANDARDS

1. On the basis of the permittee's application, plans, or other available information, the Department has determined that compliance with the terms and conditions of this permit should assure compliance with the applicable water quality standards.
2. Compliance with permit terms and conditions notwithstanding, if the permittee's discharge(s) from point sources identified in Provision I. A. of this permit cause or contribute to a condition in contravention of state water quality standards, the Department may require abatement action to be taken by the permittee in emergency situations or modify the permit pursuant to the Department's Rules, or both.
3. If the Department determines, on the basis of a notice provided pursuant to this permit or any investigation, inspection or sampling, that a modification of this permit is necessary to assure maintenance of water quality standards or compliance with other provisions of the AWPCA or FWPCA, the Department may require such modification and, in cases of emergency, the Director may prohibit the discharge until the permit has been modified.

G. GROUNDWATER

Unless specifically authorized under this permit, this permit does not authorize the discharge of pollutants to groundwater. Should a threat of groundwater contamination occur, the Director may require groundwater monitoring to properly assess the degree of the problem and the Director may require that the Permittee undertake measures to abate any such discharge and/or contamination.

H. DEFINITIONS

2. Average monthly discharge limitation - means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month (zero discharge days shall not be included in the number of "daily discharges" measured and a less than detectable test result shall be treated as a concentration of zero if the most sensitive EPA approved method was used).
3. Average weekly discharge limitation - means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week (zero discharge days shall not be included in the number of "daily discharges" measured and a less than detectable test result shall be treated as a concentration of zero if the most sensitive EPA approved method was used).
4. Arithmetic Mean – means the summation of the individual values of any set of values divided by the number of individual values.

5. AWPCA - means the Alabama Water Pollution Control Act.
6. BOD – means the five-day measure of the pollutant parameter biochemical oxygen demand.
7. Bypass - means the intentional diversion of waste streams from any portion of a treatment facility.
8. CBOD – means the five-day measure of the pollutant parameter carbonaceous biochemical oxygen demand.
9. Daily discharge - means the discharge of a pollutant measured during any consecutive 24-hour period in accordance with the sample type and analytical methodology specified by the discharge permit.
10. Daily maximum - means the highest value of any individual sample result obtained during a day.
11. Daily minimum - means the lowest value of any individual sample result obtained during a day.
12. Day - means any consecutive 24-hour period.
13. Department - means the Alabama Department of Environmental Management.
14. Director - means the Director of the Department.
15. Discharge - means "[t]he addition, introduction, leaking, spilling or emitting of any sewage, industrial waste, pollutant or other wastes into waters of the state". Code of Alabama 1975, Section 22-22-1(b)(8).
16. Discharge Monitoring Report (DMR) - means the form approved by the Director to accomplish reporting requirements of an NPDES permit.
17. DO – means dissolved oxygen.
18. 8HC – means 8-hour composite sample, including any of the following:
 - a. The mixing of at least 5 equal volume samples collected at constant time intervals of not more than 2 hours over a period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.
 - b. A sample continuously collected at a constant rate over period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.
19. EPA - means the United States Environmental Protection Agency.
20. FC – means the pollutant parameter fecal coliform.
21. Flow – means the total volume of discharge in a 24-hour period.
22. FWPCA - means the Federal Water Pollution Control Act.
23. Geometric Mean – means the Nth root of the product of the individual values of any set of values where N is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For purposes of calculating the geometric mean, values of zero (0) shall be considered one (1).
24. Grab Sample – means a single influent or effluent portion which is not a composite sample. The sample(s) shall be collected at the period(s) most representative of the discharge.
25. Indirect Discharger – means a nondomestic discharger who discharges pollutants to a publicly owned treatment works or a privately owned treatment facility operated by another person.
26. Industrial User – means those industries identified in the Standard Industrial Classification manual, Bureau of the Budget 1967, as amended and supplemented, under the category "Division D – Manufacturing" and such other classes of significant waste producers as, by regulation, the Director deems appropriate.
27. MGD – means million gallons per day.
28. Monthly Average – means, other than for fecal coliform bacteria, the arithmetic mean of the entire composite or grab samples taken for the daily discharges collected in one month period. The monthly average for fecal coliform bacteria is the geometric mean of daily discharge samples collected in a one month period. The monthly average for flow is the arithmetic mean of all flow measurements taken in a one month period.

29. New Discharger – means a person, owning or operating any building, structure, facility or installation:
 - a. from which there is or may be a discharge of pollutants;
 - b. that did not commence the discharge of pollutants prior to August 13, 1979, and which is not a new source; and
 - c. which has never received a final effective NPDES permit for dischargers at that site.
30. NH₃-N – means the pollutant parameter ammonia, measured as nitrogen.
31. Permit application - means forms and additional information that is required by ADEM Administrative Code Rule 335-6-6-.08 and applicable permit fees.
32. Point source - means "any discernible, confined and discrete conveyance, including but not limited to any pipe, channel, ditch, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, . . . from which pollutants are or may be discharged." Section 502(14) of the FWPCA, 33 U.S.C. Section 1362(14).
33. Pollutant - includes for purposes of this permit, but is not limited to, those pollutants specified in Code of Alabama 1975, Section 22-22-1(b)(3) and those effluent characteristics specified in Provision I. A. of this permit.
34. Privately Owned Treatment Works – means any devices or system which is used to treat wastes from any facility whose operator is not the operator of the treatment works, and which is not a "POTW".
35. Publicly Owned Treatment Works – means a wastewater collection and treatment facility owned by the State, municipality, regional entity composed of two or more municipalities, or another entity created by the State or local authority for the purpose of collecting and treating municipal wastewater.
36. Receiving Stream – means the "waters" receiving a "discharge" from a "point source".
37. Severe property damage - means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
38. Significant Source – means a source which discharges 0.025 MGD or more to a POTW or greater than five percent of the treatment work's capacity, or a source which is a primary industry as defined by the U.S. EPA or which discharges a priority or toxic pollutant.
39. Solvent – means any virgin, used or spent organic solvent(s) identified in the F-Listed wastes (F001 through F005) specified in 40 CFR 261.31 that is used for the purpose of solubilizing other materials.
40. TKN – means the pollutant parameter Total Kjeldahl Nitrogen.
41. TON – means the pollutant parameter Total Organic Nitrogen.
42. TRC – means Total Residual Chlorine.
43. TSS – means the pollutant parameter Total Suspended Solids.
44. 24HC – means 24-hour composite sample, including any of the following:
 - a. the mixing of at least 12 equal volume samples collected at constant time intervals of not more than 2 hours over a period of 24 hours;
 - b. a sample collected over a consecutive 24-hour period using an automatic sampler composite to one sample. As a minimum, samples shall be collected hourly and each shall be no more than one twenty-fourth (1/24) of the total sample volume collected; or
 - c. a sample collected over a consecutive 24-hour period using an automatic composite sampler composited proportional to flow.
45. Upset - means an exceptional incident in which there is an unintentional and temporary noncompliance with technology-based permit discharge limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

46. Waters - means "[a]ll waters of any river, stream, watercourse, pond, lake, coastal, ground or surface water, wholly or partially within the state, natural or artificial. This does not include waters which are entirely confined and retained completely upon the property of a single individual, partnership or corporation unless such waters are used in interstate commerce." Code of Alabama 1975, Section 22-22-1(b)(2). Waters "include all navigable waters" as defined in Section 502(7) of the FWPCA, 22 U.S.C. Section 1362(7), which are within the State of Alabama.
47. Week - means the period beginning at twelve midnight Saturday and ending at twelve midnight the following Saturday.
48. Weekly (7-day and calendar week) Average – is the arithmetic mean of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. The calendar week is defined as beginning on Sunday and ending on Saturday. Weekly averages shall be calculated for all calendar weeks with Saturdays in the month. If a calendar week overlaps two months (i.e., the Sunday is in one month and the Saturday in the following month), the weekly average calculated for the calendar week shall be included in the data for the month that contains the Saturday.

SEVERABILITY

The provisions of this permit are severable, and if any provision 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.

PART IV ADDITIONAL REQUIREMENTS, CONDITIONS, AND LIMITATIONS

A. BEST MANAGEMENT PRACTICES (BMP) PLAN REQUIREMENTS

1. BMP Plan

The permittee shall develop and implement a Best Management Practices (BMP) Plan which prevents, or minimizes the potential for, the release of pollutants from ancillary activities, including material storage areas; plant site runoff; in-plant transfer, process and material handling areas; loading and unloading operations, and sludge and waste disposal areas, to the waters of the State through plant site runoff; spillage or leaks; sludge or waste disposal; or drainage from raw material storage.

2. Plan Content

The permittee shall prepare and implement a best management practices (BMP) plan, which shall:

a. Establish specific objectives for the control of pollutants:

- (1) Each facility component or system shall be examined for its potential for causing a release of significant amounts of pollutants to waters of the State due to equipment failure, improper operation, natural phenomena such as rain or snowfall, etc.
- (2) Where experience indicates a reasonable potential for equipment failure (e.g., a tank overflow or leakage), natural condition (e.g. precipitation), or circumstances to result in significant amounts of pollutants reaching surface waters, the plan should include a prediction of the direction, rate of flow, and total quantity of pollutants which could be discharged from the facility as a result of each condition or circumstance.

b. Establish specific best management practices to meet the objectives identified under paragraph a. of this section, addressing each component or system capable of causing a release of significant amounts of pollutants to the waters of the State, and identifying specific preventative or remedial measures to be implemented;

c. Establish a program to identify and repair leaking equipment items and damaged containment structures, which may contribute to contaminated stormwater runoff. This program must include regular visual inspections of equipment, containment structures and of the facility in general to ensure that the BMP is continually implemented and effective;

d. Prevent the spillage or loss of fluids, oil, grease, gasoline, etc. from vehicle and equipment maintenance activities and thereby prevent the contamination of stormwater from these substances;

e. Prevent or minimize stormwater contact with material stored on site;

f. Designate by position or name the person or persons responsible for the day to day implementation of the BMP;

g. Provide for routine inspections, on days during which the facility is manned, of any structures that function to prevent stormwater pollution or to remove pollutants from stormwater and of the facility in general to ensure that the BMP is continually implemented and effective;

h. Provide for the use and disposal of any material used to absorb spilled fluids that could contaminate stormwater;

i. Develop a solvent management plan, if solvents are used on site. The solvent management plan shall include as a minimum lists of the solvents on site; the disposal method of solvents used instead of dumping, such as reclamation, contract hauling; and the procedures for assuring that solvents do not routinely spill or leak into the stormwater;

j. Provide for the disposal of all used oils, hydraulic fluids, solvent degreasing material, etc. in accordance with good management practices and any applicable state or federal regulations;

k. Include a diagram of the facility showing the locations where stormwater exits the facility, the locations of any structure or other mechanisms intended to prevent pollution of stormwater or to remove pollutants from stormwater, the locations of any collection and handling systems;

l. Provide control sufficient to prevent or control pollution of stormwater by soil particles to the degree required to maintain compliance with the water quality standard for turbidity applicable to the waterbody(s) receiving discharge(s) under this permit;

m. Provide spill prevention, control, and/or management sufficient to prevent or minimize contaminated stormwater runoff. Any containment system used to implement this requirement shall be constructed of materials compatible with the substance(s) contained and shall prevent the contamination of groundwater. The containment system shall also be capable of retaining a volume equal to 110 percent of the capacity of the largest tank for which containment is provided;

- n. Provide and maintain curbing, diking or other means of isolating process areas to the extent necessary to allow segregation and collection for treatment of contaminated stormwater from process areas;
- o. Be reviewed by plant engineering staff and the plant manager; and
- p. Bear the signature of the plant manager.

3. Compliance Schedule

The permittee shall have reviewed (and revised if necessary) and fully implemented the BMP plan as soon as practicable but no later than six months after the effective date of this permit.

4. Department Review

- a. When requested by the Director or his designee, the permittee shall make the BMP available for Department review.
- b. The Director or his designee may notify the permittee at any time that the BMP is deficient and require correction of the deficiency.
- c. The permittee shall correct any BMP deficiency identified by the Director or his designee within 30 days of receipt of notification and shall certify to the Department that the correction has been made and implemented.

5. Administrative Procedures

- a. A copy of the BMP shall be maintained at the facility and shall be available for inspection by representatives of the Department.
- b. A log of the routine inspection required above shall be maintained at the facility and shall be available for inspection by representatives of the Department. The log shall contain records of all inspections performed for the last three years and each entry shall be signed by the person performing the inspection.
- c. The permittee shall provide training for any personnel required to implement the BMP and shall retain documentation of such training at the facility. This documentation shall be available for inspection by representatives of the Department. Training shall be performed prior to the date that implementation of the BMP is required.
- d. BMP Plan Modification. The permittee shall amend the BMP plan whenever there is a change in the facility or change in operation of the facility which materially increases the potential for the ancillary activities to result in a discharge of significant amounts of pollutants.
- e. BMP Plan Review. The permittee shall complete a review and evaluation of the BMP plan at least once every three years from the date of preparation of the BMP plan. Documentation of the BMP Plan review and evaluation shall be signed and dated by the Plant Manager.

B. STORMWATER FLOW MEASUREMENT AND SAMPLING REQUIREMENTS

1. Stormwater Flow Measurement

- a. All stormwater samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches.
- b. The total volume of stormwater discharged for the event must be monitored, including the date and duration (in hours) and rainfall (in inches) for storm event(s) sampled. The duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event must be a minimum of 72 hours. This information must be recorded as part of the sampling procedure and records retained according to Part I.B. of this permit.
- c. The volume may be measured using flow measuring devices, or estimated based on a modification of the Rational Method using total depth of rainfall, the size of the drainage area serving a stormwater outfall, and an estimate of the runoff coefficient of the drainage area. This information must be recorded as part of the sampling procedure and records retained according to Part I.B. of this permit.

2. Stormwater Sampling

- a. A grab sample, if required by this permit, shall be taken during the first thirty minutes of the discharge (or as soon thereafter as practicable); and a flow-weighted composite sample, if required by this permit, shall be taken for the entire event or for the first three hours of the event.
- b. All test procedures will be in accordance with part I.B. of this permit.

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 WATER DIVISION – INDUSTRIAL AND MUNICIPAL SECTIONS
NONCOMPLIANCE NOTIFICATION FORM

PERMITTEE NAME: _____ PERMIT NO: _____

FACILITY LOCATION: _____

DMR REPORTING PERIOD: _____

1. DESCRIPTION OF DISCHARGE: (Include outfall number (s))

2. DESCRIPTION OF NON-COMPLIANCE: (Attach additional pages if necessary):

LIST EFFLUENT VIOLATIONS (If applicable)			
Outfall Number (s)	NONCOMPLIANCE PARAMETER(S)	Result Reported (Include units)	Permit Limit (Include units)
LIST MONITORING / REPORTING VIOLATIONS (If applicable)			
Outfall Number (s)	NONCOMPLIANCE PARAMETER(S)	Monitoring / Reporting Violation (Provide description)	

3. CAUSE OF NON-COMPLIANCE (Attach additional pages if necessary):

4. PERIOD OF NONCOMPLIANCE: (Include exact date(s) and time(s) or, if not corrected, the anticipated time the noncompliance is expected to continue):

5. DESCRIPTION OF STEPS TAKEN AND/OR BEING TAKEN TO REDUCE OR ELIMINATE THE NONCOMPLYING DISCHARGE AND TO PREVENT ITS RECURRENCE (attach additional pages if necessary):

"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 fine and imprisonment for knowing violations."

 NAME AND TITLE OF RESPONSIBLE OFFICIAL (type or print)

 SIGNATURE OF RESPONSIBLE OFFICIAL / DATE SIGNED

ADEM PERMIT RATIONALE

PREPARED DATE: August 18, 2016

PREPARED BY: Latoya Hall

Permittee Name: Occidental Chemical Corporation

Permit Number: AL0003514

PERMIT IS REISSUANCE DUE TO EXPIRATION

DISCHARGE SERIAL NUMBERS & DESCRIPTIONS:

DSN001: Treated stormwater from idled process areas, treated groundwater, storm water runoff associated with the production of sodium silicate and storm water and wash water from the terminal operations of sodium hydroxide.

DSN002: Non-contact cooling water, car wash wastewater, boiler/water softener blowdown, steam condensate and stormwater from idled process area secondary containment.

DSN003-005: Storm water runoff associated with the production of sodium silicate and the storage of sodium hydroxide.

INDUSTRIAL CATEGORY: INORGANIC CHEMICALS MANUFACTURING

MAJOR: N(See updated rating sheet attached)

STREAM INFORMATION:

Receiving Stream:	Chickasaw Creek (DSN001) & UT to Chickasaw Creek (Gales Branch)
Classification:	LWF
River Basin:	Mobile River Basin
7Q10:	48.3 cfs
7Q2:	86.4 cfs
1Q10:	45.4 cfs
Annual Average Flow:	395 cfs
303(d) List:	Yes
Impairment:	Metals (Mercury)
TMDL:	No

DISCUSSION:

Occidental Chemical Corporation, an inorganic chemical manufacturer, has applied for a reissuance/modification of their NPDES permit. They currently produce sodium silicate and operate a sodium hydroxide terminal. Occidental Chemical no longer manufactures chlorine, potassium hydroxide or hydrogen at this location.

The Facility is currently listed as a Major, however an updated rating sheet indicates that the operations at the facility no longer rates as a Major (see attached NPDES Permit Rating Work Sheet).

ADEM Administrative Rule 335-6-10-.12 requires applicants to new or expanded discharges to Tier II waters demonstrate that the proposed discharge is necessary for important economic or social development in the area in which the waters are located. The application submitted by the facility is not for a discharge to a Tier II water body. Therefore, anti-degradation requirements do not apply.

EPA has not promulgated specific guidelines for the discharges covered under the proposed permit. Proposed permit limits are based on Best Professional Judgment. The proposed frequencies are based on a review of site specific conditions and an evaluation of similar facilities.

0011: Treated stormwater from idled process areas, treated groundwater, storm water runoff associated with the production of sodium silicate and storm water and wash water from the terminal operations of sodium hydroxide.

<u>Parameter</u>	<u>Monthly Avg Loading</u>	<u>Daily Max Loading</u>	<u>Daily Min Concentration</u>	<u>Monthly Avg Concentration</u>	<u>Daily Max Concentration</u>	<u>Sample Frequency</u>	<u>Sample Type</u>	<u>Basis*</u>
pH	-	-	6.0 S.U.	-	9.0 S.U.	Monthly	Grab	WQBEL/ BPJ
Solids, Total Dissolved	-	REPORT lbs/day	-	-	-	Monthly	Grab	BPJ
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Daily when Discharging	Calculated	BPJ
Mercury Total Recoverable	0.0062 lbs/day	0.2866 lbs/day	-	-	-	Monthly	Grab	WQBEL

001S: Treated stormwater from idled process areas, treated groundwater, storm water runoff associated with the production of sodium silicate and storm water and wash water from the terminal operations of sodium hydroxide

<u>Parameter</u>	<u>Monthly Avg Loading</u>	<u>Daily Max Loading</u>	<u>Daily Min Concentration</u>	<u>Monthly Avg Concentration</u>	<u>Daily Max Concentration</u>	<u>Sample Frequency</u>	<u>Sample Type</u>	<u>Basis*</u>
pH	-	-	REPORT S.U.	-	REPORT S.U.	Twice per Year	Grab	BPJ
Oil & Grease	-	-	-	-	15 mg/l	Twice per Year	Grab	BPJ
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Twice per Year	Calculated	BPJ
Solids, Total Dissolved (TDS)	-	REPORT lbs/day	-	-	-	Twice per Year	Grab	BPJ
Mercury Total Recoverable	REPORT lbs/day	REPORT lbs/day	-	-	-	Twice per Year	Grab	BPJ

0021: Non-contact cooling water, car wash wastewater, boiler/water softener blowdown, steam condensate and stormwater from idled process area secondary containment.

<u>Parameter</u>	<u>Monthly Avg Loading</u>	<u>Daily Max Loading</u>	<u>Daily Min Concentration</u>	<u>Monthly Avg Concentration</u>	<u>Daily Max Concentration</u>	<u>Sample Frequency</u>	<u>Sample Type</u>	<u>Basis*</u>
Temperature, Water Deg. Fahrenheit	-	-	-	-	90 F	Monthly	Grab	WQBEL

pH	-	-	6.0 S.U.	-	9.0 S.U.	Monthly	Grab	WQBEL/ BPJ
Oil & Grease	-	-	-	-	15 mg/l	Monthly	Grab	BPJ
Phosphorus, Total	-	-	-	-	REPORT mg/l	Monthly	Grab	BPJ
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Monthly	Calculated	BPJ
Solids, Total Dissolved	-	-	-	-	REPORT mg/l	Monthly	Grab	BPJ

002S: Non-contact cooling water, car wash wastewater, boiler/water softener blowdown, steam condensate and stormwater from idled process area secondary containment.

<u>Parameter</u>	<u>Monthly Avg Loading</u>	<u>Daily Max Loading</u>	<u>Daily Min Concentration</u>	<u>Monthly Avg Concentration</u>	<u>Daily Max Concentration</u>	<u>Sample Frequency</u>	<u>Sample Type</u>	<u>Basis*</u>
pH	-	-	REPORT S.U.	-	REPORT S.U.	Twice per Year	Grab	BPJ
Oil & Grease	-	-	-	-	15 mg/l	Twice per Year	Grab	BPJ
Solids, Total Dissolved	-	-	-	-	REPORT mg/l	Twice per Year	Grab	BPJ
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Twice per Year	Calculated	BPJ
Mercury Total Recoverable	-	-	-	-	REPORT mg/l	Twice per Year	Grab	BPJ

003Y: Storm water runoff associated with the production of sodium silicate and the storage of sodium hydroxide.

<u>Parameter</u>	<u>Monthly Avg Loading</u>	<u>Daily Max Loading</u>	<u>Daily Min Concentration</u>	<u>Monthly Avg Concentration</u>	<u>Daily Max Concentration</u>	<u>Sample Frequency</u>	<u>Sample Type</u>	<u>Basis*</u>
pH	-	-	REPORT S.U.	-	REPORT S.U.	Annually	Grab	BPJ
Oil & Grease	-	-	-	-	15 mg/l	Annually	Grab	BPJ
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Annually	Measured	BPJ
Solids, Total Dissolved	-	-	-	-	REPORT mg/l	Annually	Grab	BPJ
Mercury Total Recoverable	-	-	-	-	REPORT mg/l	Annually	Grab	BPJ

005Y: Storm water runoff associated with the production of sodium silicate and the storage of sodium hydroxide.

<u>Parameter</u>	<u>Monthly Avg Loading</u>	<u>Daily Max Loading</u>	<u>Daily Min Concentration</u>	<u>Monthly Avg Concentration</u>	<u>Daily Max Concentration</u>	<u>Sample Frequency</u>	<u>Sample Type</u>	<u>Basis*</u>
pH	-	-	REPORT S.U.	-	REPORT S.U.	Annually	Grab	BPJ
Oil & Grease	-	-	-	-	15 mg/l	Annually	Grab	BPJ
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Annually	Measured	BPJ
Solids, Total Dissolved	-	-	-	-	REPORT mg/l	Annually	Grab	BPJ
Mercury Total Recoverable	-	-	-	-	REPORT mg/l	Annually	Grab	BPJ

004S: Storm water runoff associated with the production of sodium silicate and the storage of sodium hydroxide.

<u>Parameter</u>	<u>Monthly Avg Loading</u>	<u>Daily Max Loading</u>	<u>Daily Min Concentration</u>	<u>Monthly Avg Concentration</u>	<u>Daily Max Concentration</u>	<u>Sample Frequency</u>	<u>Sample Type</u>	<u>Basis*</u>
pH	-	-	REPORT S.U.	-	REPORT S.U.	Twice per Year	Grab	BPJ
Oil & Grease	-	-	-	-	15 mg/l	Twice per Year	Grab	BPJ
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Twice per Year	Measured	BPJ
Solids, Total Dissolved	-	-	-	-	REPORT mg/l	Twice per Year	Grab	BPJ
Mercury Total Recoverable	-	-	-	-	REPORT mg/l	Twice per Year	Grab	BPJ

*Basis for Permit Limitation

- BPJ – Best Professional Judgment
- WQBEL – Water Quality Based Effluent Limits
- EGL – Federal Effluent Guideline Limitations
- 303(d) – 303(d) List of Impaired Waters
- TMDL – Total Maximum Daily Load Requirements

Discussion

Occidental Chemical is regulated under 40 CFR 415 Subpart S-Sodium Silicate Production. This subpart is reserved and therefore this permit is based on BPJ. The parameters of concern have been modified to address the facility's current industrial activities.

DSN001: Treated stormwater from idled process areas, storm water runoff associated with the production of sodium silicate and storm water and wash water from the terminal operations of sodium hydroxide. **(This outfall is to be monitored monthly during a non-storm event)**

Flow

Flow will be monitored daily when discharging to quantify the volume of wastewater leaving the facility during non storm events.

pH

Although the in-stream water quality standard for pH is 6.0 to 8.5, it is the opinion of the permit writer that the discharge will not adversely affect the instream pH based on the low effluent/stream flow ratio. Therefore, the upper limit of 9.0 S.U. is expected to be protective of the instream water quality of the receiving stream.

Dissolved Solids

Based on the material on site, Total Dissolved Solids is a good indicator of the permittee BMP effectiveness.

Groundwater remediation (Mercury Limitation)

Occidental Chemical is not operating the groundwater extraction system at the former brine sludge lagoon. The groundwater, in the past, was discharge via DSN001 after treatment to remover mercury. The permittee has requested that treated groundwater remain in the description of this outfall incase ADEMs Land division requires the discontinued treatment to be resumed. Therefore, the Mercury limit will be continued in the permit at this time to address the impairment of Chickasaw Creek. The following rationale language was given as a basis for the mercury limits in the previous permit:

“Occidental and Shell have provided stream data that indicates that Chickasaw Creek above Occidental has a lower salinity and typically supports more freshwater aquatic life and as such should be treated as a fresh water stream. The characteristics of the stream below Occidental reveal that it is has a higher salinity, supports more marine life and for the purposes of permitting should be treated as a saltwater stream. Based on this, permit limits for mercury were determined using freshwater criteria for Shell and using marine criteria for Occidental. Shell was allowed the entire stream allocation in determining the monthly average requirement based on the more stringent freshwater chronic criteria (0.000012 mg/l) and Occidental was given the remaining allocation based on the more stringent of marine chronic criteria (0.000025 mg/l) and human health criteria (0.000042 mg/l). The stream 7Q2 was used to calculate the chronic toxicity requirements and the stream 7Q10 was used to determine the human health based limit. The final determination resulted in a 49 to 51% split of the total allocation. The same procedure was followed in developing the daily maximum limits (acute criteria) but for purposes of simplification the allocation was split 50-50.

Based on the above approach, Occidental's existing total recoverable mercury limitations will be reduced to 0.0062 lbs/day (monthly average) and 0.2866 lbs/day (daily max). As discussed, the remainder of the mercury allocation is being given to Shell. Although UOP also reported mercury present in their discharge in their most recent permit application; the source of mercury is apparently not related to process sources but instead is from atmospheric deposition. For this reason an allocation for mercury is not being reserved for UOP. However at such time as a TMDL is approved for this stream, permit limits for all facilities may have to be modified to comply with the TMDL requirements. “

DSN001S: Treated stormwater from idled process areas, treated groundwater, storm water runoff associated with the production of sodium silicate and storm water and wash water from the terminal operations of sodium hydroxide
(This outfall is to be monitored twice a year during a storm event)

Flow

A combined flow will be calculated to quantify the volume of wastewater leaving the facility through the permitted outfall during a storm event.

Oil & Grease

The daily maximum limit for Oil and Grease should prevent the occurrence of a visible sheen in the stream and has been shown to be achievable through the use of proper BMPs.

Oil and Grease is not expected to be present during a non-storm event and therefore it is monitored with limitations during a storm event.

Dissolved Solids

Based on the material on site, Total Dissolved Solids is a good indicator of the permittee BMP effectiveness.

pH and Mercury

Limitations for these parameters only apply during a non storm event.

Biomonitoring (removed)

The permittee has requested that Biomonitoring be removed from the permit during this permit cycle. The facility no longer discharge process wastewater and is no longer classified has a major source. Therefore, the discharge is not expected to cause toxic conditions in the receiving stream and there Biomonitoring is not required.

Copper and Nickel (removed)

The permittee requested these parameters be removed due to the lack of a source. After a review of the available DMR data, the discharge from this site is not a significant source of these pollutants. Based on BPJ, monitoring requirements will be removed.

Nutrients (TKN, Nitrite plus Nitrate, and Phosphorus) (removed)

All major sources are required to monitor nutrients from the process discharge. Based on the updated rating sheet, this facility is no longer considered a major, therefore nutrient monitoring is on a case by case basis. After a review of the available DMR data, the discharge from this site is not a significant source of these pollutants. Based on BPJ, monitoring requirements will be removed.

COD and TSS (removed)

The permittee requested these parameters be removed due to the lack of a source. After a review of the available DMR data, the discharge from this site is not a significant source of these pollutants. Based on BPJ, monitoring requirements will be removed.

TRC (removed)

The permittee requested this parameter be removed due to the lack of a source. The facility no longer manufactures chlorine and the process area remains idled.

This outfall no longer contains cooling water. All cooling water is discharged via DSN002. In addition, the source water for the facility is non-potable industrial water. After a review of the available DMR data, the discharge from this site is not a significant source of TRC. Based on BPJ, monitoring requirements will be removed.

Chlorides (removed)

Although the DMR data does indicated that chlorides are present in the wastewater, based on the material on site, Total Dissolved Solids is a better indicator of the permittee BMP effectiveness. Therefore, chloride monitoring requirements will be removed.

Discharge Information Zone (DIZ) Requirements (removed)

In accordance with the ADEM Coastal Program regulations (ADEM Admin. Code R. 335-8-2-.12), since the Permittee is no longer classified as a major and the discharge from the facility is less than 1 MGD, the DIZ requirement no longer apply to this discharger. Therefore, the DIZ Study requirement will be removed.

DSN0021: Non-contact cooling water, car wash wastewater, boiler/water softener blowdown, steam condensate and stormwater from idled process area secondary containment. **(This outfall is to be monitored monthly during a non-storm event)**

Flow

Flow will be monitored monthly to quantify the volume of wastewater leaving the facility during non storm events.

pH

Although the in-stream water quality standard for pH is 6.0 to 8.5, it is the opinion of the permit writer that the discharge will not adversely affect the instream pH based on the low effluent/stream flow ratio. Therefore, the upper limit of 9.0 S.U. is expected to be protective of the instream water quality of the receiving stream.

Temperature

This limit is continued in the proposed permit and has shown to be protective of water quality.

Oil & Grease

The daily maximum limit for Oil and Grease should prevent the occurrence of a visible sheen in the stream and has been shown to be achievable through the use of proper BMPs.

Phosphorus

Phosphorus will be monitored monthly due to the use of soaps when the car wash is in use.

Dissolved Solids

Based on the material on site, Total Dissolved Solids is a good indicator of the permittee BMP effectiveness.

DSN002S: Non-contact cooling water, car wash wastewater, boiler/water softener blowdown, steam condensate and stormwater from idled process area secondary containment. **(This outfall is to be monitored twice a year during a storm event)**

Flow

A combined flow will be calculated to quantify the volume of wastewater leaving the facility through the permitted outfall during a storm event.

pH

pH will be monitored with no limitations as a measure of the effectiveness of the BMP Plan. Limit will apply during non storm event discharges.

Oil & Grease

The daily maximum limit for Oil and Grease should prevent the occurrence of a visible sheen in the stream and has been shown to be achievable through the use of proper BMPs.

Dissolved Solids

Based on the material on site, Total Dissolved Solids is a good indicator of the permittee BMP effectiveness.

Mercury

Mercury monitoring is required to quantify the loading leaving the site.

TSS (removed)

The permittee requested these parameters be removed due to the lack of a source. After a review of the available DMR data, the discharge from this site is not a significant source of TSS. Based on BPJ, monitoring requirements will be removed.

TRC (removed)

The permittee requested this parameter be removed due to the lack of a source. The facility no longer manufactures chlorine and the process area remains idled. In addition, the source water for the facility is non-potable industrial water. After a review of the available DMR data, the discharge from this site is not a significant source of TRC. Based on BPJ, monitoring requirements will be removed.

DSN003-005: Storm water runoff associated with the production of sodium silicate and the storage of sodium hydroxide.

Oil & Grease

The daily maximum limit for Oil and Grease should prevent the occurrence of a visible sheen in the stream and has been shown to be achievable through the use of proper BMPs.

The permittee requested annual stormwater monitoring. Based on the available data, monitoring for DSN003 and DSN005 will go from twice per year to annual. However, since DSN004 contains the drainage area for the active silicate plant, the storm water will continue to be monitored twice a year.

DSN006: Storm water runoff associated with the production of sodium silicate and the storage of sodium hydroxide.

The permittee has requested this outfall to be removed. Since there is no industrial activity in this drainage area, the Department does not object to removing this outfall at this time.

Best Management Practices (BMPs) are believed to be the most effective way to control the contamination of stormwater from areas of industrial activities. This facility is required to maintain a BMP plan. The requirements of the BMP plan call for minimization of stormwater contact with waste materials, products and by-products, and for prevention of spills or loss of fluids from equipment maintenance activities. The effectiveness of the BMPs will be measured through the monitoring of the pollutants of concern.

Facility Name: Occidental Chemical

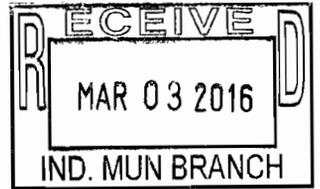
NPDES No.: AL0003514

Human Health Consumption Fish only (µg/l)

Freshwater LWF classification.				Max Daily Discharge as reported by Applicant (C _{max})	Freshwater Acute (µg/l) Q ₁ = 1Q10					Avg Daily Discharge as reported by Applicant (C _{avg})	Freshwater Chronic (µg/l) Q ₁ = 7Q2				Carcinogen Q ₁ = Annual Average Non-Carcinogen Q ₁ = 7Q10			
ID	Pollutant	RPT	Carcinogen yes		Background from upstream source (C _{D2}) Daily Max	Water Quality Criteria (C _c)	Draft Permit Limit (C _{max})	20% of Draft Permit Limit	RPT		Background from upstream source (C _{D2}) Monthly Ave	Water Quality Criteria (C _c)	Draft Permit Limit (C _{max})	20% of Draft Permit Limit	RPT	Water Quality Criteria (C _c)	Draft Permit Limit (C _{avg})	20% of Draft Permit Limit
1	Antimony			0	0				0					3.73E+02	1.67E+05	3.34E+04	No	
2	Arsenic		YES	0	0	592.334	198709.808	39741.96168	No	0	261.324	208729.839	41745.96776	No	3.03E-01	1.11E+03	2.21E+02	No
3	Beryllium			0	0				0									
4	Cadmium			0	0	4.347	1458.327	291.6653389	No	0	0.644	514.076	102.8152605	No				
5	Chromium/ Chromium III			0	0	1537.913	515921.971	103184.3942	No	0	200.051	159788.538	31957.70754	No				
6	Chromium/ Chromium VI			0	0	16.000	5367.503	1073.500518	No	0	11.000	8786.135	1757.226936	No				
7	Copper			0	0	18.026	6047.289	1209.457751	No	0	12.766	10196.364	2039.272838	No	1.30E+03	5.81E+05	1.16E+05	No
8	Lead			0	0	64.531	21648.099	4329.619752	No	0	2.515	2008.570	401.7140796	No				
9	Mercury			0	0	2.400	805.125	161.0250777	No	0	0.012	9.585	1.918974839	No	4.24E-02	1.90E+01	3.79E+00	No
10	Nickel			0	119	515.824	173043.035	34608.60699	No	119	57.292	45781.513	9152.302551	No	9.93E+02	4.44E+05	8.88E+04	No
11	Selenium			0	0	20.000	8708.378	1341.875647	No	0	5.000	3993.698	798.7395164	No	2.43E+03	1.09E+06	2.17E+05	No
12	Silver			0	0	0.976	327.566	65.51322413	No	0								
13	Thallium			0	0				0					2.74E-01	1.22E+02	2.45E+01	No	
14	Zinc			0	0	197.369	66211.100	13242.21995	No	0	198.983	158935.808	31787.1615	No	1.49E+04	6.66E+06	1.33E+06	No
15	Cyanide			0	0	22.000	7380.316	1476.063212	No	0	5.200	4153.445	830.6890971	No	9.33E+03	4.17E+06	8.34E+05	No
16	Total Phenolic Compounds			0	0				0									
17	Hardness (As CaCO3)			0	0				0									
18	Achrolein			0	0				0					5.43E+00	2.43E+03	4.85E+02	No	
19	Acrylonitrile		YES	0	0				0					1.44E-01	5.25E+02	1.05E+02	No	
20	Aldrin		YES	0	0	3.000	1006.407	201.2813471	No	0	1.300	1038.361	207.8722743	No	2.94E-05	1.07E-01	2.14E-02	No
21	Benzene		YES	0	0				0					1.55E+01	5.64E+04	1.13E+04	No	
22	Bromoform		YES	0	0				0					7.88E+01	2.87E+05	5.75E+04	No	
23	Carbon Tetrachloride		YES	0	0				0					9.57E-01	3.49E+03	6.98E+02	No	
24	Chlordane		YES	0	0	2.400	805.125	161.0250777	No	0	0.004	3.435	0.686915984	No	4.73E-04	1.72E+00	3.45E-01	No
25	Chlorobenzene			0	0				0					9.06E+02	4.05E+05	8.10E+04	No	
26	Chlorodioromo-Methane		YES	0	0				0					7.41E+00	2.70E+04	5.40E+03	No	
27	Chloroethane			0	0				0									
28	2-Chloro-Ethylvinyl Ether			0	0				0									
29	Chloroform		YES	0	0				0					1.02E+02	3.72E+05	7.44E+04	No	
30	4,4' - DDD		YES	0	0				0					1.81E-04	6.62E-01	1.32E-01	No	
31	4,4' - DDE		YES	0	0				0					1.28E-04	4.67E-01	9.34E-02	No	
32	4,4' - DDT		YES	0	0				0					1.28E-04	4.67E-01	9.34E-02	No	
33	Dichlorobromo-Methane		YES	0	0				0					1.00E+01	3.66E+04	7.32E+03	No	
34	1, 1-Dichloroethane			0	0				0									
35	1, 2-Dichloroethane		YES	0	0				0					2.14E+01	7.80E+04	1.56E+04	No	
36	Trans-1, 2-Dichloro-Ethylene			0	0				0					5.91E+03	2.84E+06	5.28E+05	No	
37	1, 1-Dichloroethylene		YES	0	0				0					4.17E+03	1.52E+07	3.04E+06	No	
38	1, 2-Dichloropropane			0	0				0					8.49E+00	3.80E+03	7.59E+02	No	
39	1, 3-Dichloro-Propylene			0	0				0					1.23E+01	5.49E+03	1.10E+03	No	
40	Dieldrin		YES	0	0	0.240	80.513	16.10250777	No	0	0.056	44.729	8.945882584	No	3.12E-05	1.14E-01	2.28E-02	No
41	Ethylbenzene			0	0				0					1.24E+03	5.56E+05	1.11E+05	No	
42	Methyl Bromide			0	0				0					8.71E+02	3.89E+05	7.79E+04	No	
43	Methyl Chloride			0	0				0									
44	Methylene Chloride		YES	0	0				0					3.46E+02	1.26E+06	2.52E+05	No	
45	1, 1, 2, 2-Tetrachloro-Ethane		YES	0	0				0					2.33E+00	8.51E+03	1.70E+03	No	
46	Tetrachloro-Ethylene		YES	0	0				0					1.92E+00	6.99E+03	1.40E+03	No	
47	Toluene			0	0				0					6.72E+03	3.90E+06	7.80E+05	No	
48	Toxaphene		YES	0	0	0.730	244.892	48.97646113	No	0	0.0002	0.160	0.031949581	No	1.62E-04	5.91E-01	1.18E-01	No
49	Tributyltin (TBT)		YES	0	0	0.460	154.316	30.86313989	No	0	0.072	57.509	11.50184904	No				
50	1, 1, 1-Trichloroethane			0	0				0									
51	1, 1, 2-Trichloroethane		YES	0	0				0					9.10E+00	3.32E+04	6.64E+03	No	
52	Trichloroethylene		YES	0	0				0					1.75E+01	6.37E+04	1.27E+04	No	
53	Vinyl Chloride		YES	0	0				0					1.42E+00	5.20E+03	1.04E+03	No	
54	p-Chloro-m-Cresol			0	0				0									
55	2-Chlorophenol			0	0				0					8.71E+01	3.89E+04	7.78E+03	No	
56	2, 4-Dichlorophenol			0	0				0					1.72E+02	7.69E+04	1.54E+04	No	
57	2, 4-Dimethylphenol			0	0				0					4.98E+02	2.22E+05	4.45E+04	No	
58	4, 6-Dinitro-O-Cresol			0	0				0									
59	2, 4-Dinitrophenol			0	0				0					3.11E+03	1.39E+06	2.78E+05	No	
60	4,6-Dinitro-2-methylphenol		YES	0	0				0					1.65E+02	6.04E+05	1.21E+05	No	
61	Dioxin (2,3,7,8-TCDD)		YES	0	0				0					2.67E-08	9.73E-05	1.95E-05	No	
62	2-Nitrophenol			0	0				0									
63	4-Nitrophenol			0	0				0									
64	Pentachlorophenol		YES	0	0	8.723	2926.403	585.2805925	No	0	6.693	5345.631	1069.126211	No	1.77E+00	6.45E+03	1.29E+03	No
65	Phenol			0	0				0					5.00E+05	2.23E+08	4.47E+07	No	
66	2, 4, 6-Trichlorophenol		YES	0	0				0					1.41E+00	5.16E+03	1.03E+03	No	
67	Acenaphthene			0	0				0					5.79E+02	2.59E+05	5.17E+04	No	
68	Acenaphthylene			0	0				0									
69	Anthracene			0	0				0					2.33E+04	1.04E+07	2.09E+06	No	
70	Benzo(a)Anthracene		YES	0	0				0					1.16E-04	5.18E-02	1.04E-02	No	
71	Benzo(a)Pyrene		YES	0	0				0					1.07E-02	3.89E+01	7.77E+00	No	
72	3, 4 Benzo-Fluoranthene			0	0				0					1.07E-02	3.89E+01	7.77E+00	No	
73	Benzo(GH)Perylene			0	0				0									
74	Benzo(K)Fluoranthene			0	0				0									
75	Bis (2-Chloroethoxy) Methane			0	0				0					1.07E-02	4.75E+00	9.52E-01	No	
76	Bis (2-Chloroethyl)-Ether		YES	0	0				0									
77	Bis (2-Chloroisopropyl) Ether			0	0				0					3.07E-01	1.12E+03	2.24E+02	No	
78	Bis (2-Ethylhexyl) Phthalate		YES	0	0				0					3.78E+04	1.69E+07	3.38E+06	No	
79	4-Bromophenyl Phenyl Ether			0	0				0					1.28E+00	4.68E+03	9.35E+02	No	
80	Butyl Benzyl Phthalate			0	0				0									
81	2-Chloronaphthalene			0	0				0					1.13E+03	5.04E+05	1.01E+05	No	
82	4-Chlorophenyl Phenyl Ether		YES	0	0				0					9.24E+02	4.13E+05	8.26E+04	No	
83	Chrysene			0	0				0									
84	Di-N-Butyl Phthalate			0	0				0					1.07E-02	3.89E+01	7.77E+00	No	
85	Di-N-Octyl Phthalate			0	0				0					2.62E+03	1.17E+06	2.34E+05	No	
86	Dibenzo(A,H)Anthracene		YES	0	0				0									
87	1, 2-Dichlorobenzene			0	0				0					1.07E-02	3.89E+01	7.77E+00	No	
88	1, 3-Dichlorobenzene			0	0				0					7.55E+02	3.38E+05	6.75E+04	No	
89	1, 4-Dichlorobenzene			0	0				0					5.62E+02	2.51E+05	5.03E+04	No	
90	3,3-Dichlorobenzene		YES	0	0				0					1.12E+02	5.03E+04	1.01E+04	No	
91	Diethyl Phthalate			0	0				0					1.66E-02	8.06E+01	1.21E+01	No	
92	Dimethyl Phthalate			0	0				0					2.56E+04	1.14E+07	2.29E+06	No	
93	2, 4-Dinitrotoluene		YES	0	0				0					6.48E+05</				

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
PERMIT APPLICATION SUPPLEMENTARY INFORMATION

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
WATER DIVISION – INDUSTRIAL / MINING PERMIT SECTION
POST OFFICE BOX 301463
MONTGOMERY, ALABAMA 36130-1463



INSTRUCTIONS: APPLICATIONS SHOULD BE TYPED OR PRINTED IN INK AND SUBMITTED TO THE DEPARTMENT IN DUPLICATE. IF INSUFFICIENT SPACE IS AVAILABLE TO ADDRESS ANY ITEM, PLEASE CONTINUE ON AN ATTACHED SHEET OF PAPER. PLEASE MARK N/A IN THE APPROPRIATE BOX WHEN AN ITEM IS NON-APPLICABLE TO THE APPLICANT.

PURPOSE OF THIS APPLICATION

- INITIAL PERMIT APPLICATION FOR NEW FACILITY INITIAL PERMIT APPLICATION FOR EXISTING FACILITY
 MODIFICATION OF EXISTING PERMIT REISSUANCE OF EXISTING PERMIT
 REVOCATION & REISSUANCE OF EXISTING PERMIT

1. Facility Name: Occidental Chemical Corporation

a. Operator Name: Occidental Chemical Corporation

b. Is the operator identified in 1.a., the owner of the facility? Yes No
If no, provide the name and address of the operator and submit information indicating the operator's scope of responsibility for the facility.

2. NPDES Permit Number AL 0 0 0 3 5 1 4

3. SID Permit Number (if applicable): IU _____ - _____ - _____

4. NPDES General Permit Number (if applicable) ALG _____

5. Facility Physical Location: (Attach a map with location marked; street, route no. or other specific identifier)

Street: 1300 Jarvis Road

City: Mobile County: Mobile State: AL Zip: 36614

Facility (Front Gate) Latitude: 30.45 Longitude: -88.0401

6. Facility Mailing Address (Street or Post Office Box): 1300 Jarvis Road

City: Mobile State: AL Zip: 36614

7. Responsible Official (as described on page 13 of this application):

Name and Title: Al Turner, Plant Manager

Address: 1300 Jarvis Road

City: Mobile State: AL Zip: 36614

Phone Number: 251-452-7661

EMAIL Address: Al_Turner@oxy.com

8. Designated Facility Contact:

Name and Title: Al Turner, Plant Manager

Phone Number: 251-452-7661

EMAIL Address: Al_Turner@oxy.com

9. Designated Discharge Monitoring Report Contact:

Name and Title: David Flint, Environmental Supervisor

Phone Number: 251-452-7623

EMAIL Address: David_Flint@oxy.com

10. Type of Business Entity:

Corporation General Partnership Limited Partnership

Sole Proprietorship Other (Please Specify) _____

11. Complete this section if the Applicant's business entity is a Corporation

a) Location of Incorporation:

Address: 1663 Broadway

City: New York County: New York State: New York Zip: 10019

b) Parent Corporation of Applicant:

Name: Occidental Chemical Corporation (OxyChem)

Address: 5 Greenway Plaza

City: Houston State: Texas Zip: 77046

c) Subsidiary Corporation(s) of Applicant:

Name: Occidental Chemical Corporation (OxyChem)

Address: 5005 LBJ Freeway, Occidental Tower

City: Dallas State: Texas Zip: 75380-9050

d) Corporate Officers:

Name: See Supplemental Sheet

Address:

City: State: Zip:

Name:

Address:

City: State: Zip:

e) Agent designated by the corporation for purposes of service:

Name: The Corporation Company

Address: 2000 Interstate Park Drive Suite 204

City: Montgomery State: Alabama Zip: 36109-5421

12. If the Applicant's business entity is a Partnership, please list the general partners.

Name:

Address:

City: State: Zip:

Name:

Address:

City: State: Zip:

2. If your facility conducts or will be conducting any of the processes listed below (regardless of whether they generate wastewater, waste sludge, or hazardous waste), place a check beside the category of business activity (check all that apply):

Industrial Categories

- | | |
|---|--|
| <input type="checkbox"/> Aluminum Forming | <input type="checkbox"/> Metal Molding and Casting |
| <input type="checkbox"/> Asbestos Manufacturing | <input type="checkbox"/> Metal Products |
| <input type="checkbox"/> Battery Manufacturing | <input type="checkbox"/> Nonferrous Metals Forming |
| <input type="checkbox"/> Can Making | <input type="checkbox"/> Nonferrous Metals Manufacturing |
| <input type="checkbox"/> Canned and Preserved Fruit and Vegetables | <input type="checkbox"/> Oil and Gas Extraction |
| <input type="checkbox"/> Canned and Preserved Seafood | <input type="checkbox"/> Organic Chemicals Manufacturing |
| <input type="checkbox"/> Cement Manufacturing | <input type="checkbox"/> Paint and Ink Formulating |
| <input type="checkbox"/> Centralized Waste Treatment | <input type="checkbox"/> Paving and Roofing Manufacturing |
| <input type="checkbox"/> Carbon Black | <input type="checkbox"/> Pesticides Manufacturing |
| <input type="checkbox"/> Coal Mining | <input type="checkbox"/> Petroleum Refining |
| <input type="checkbox"/> Coil Coating | <input type="checkbox"/> Phosphate Manufacturing |
| <input type="checkbox"/> Copper Forming | <input type="checkbox"/> Photographic |
| <input type="checkbox"/> Electric and Electronic Components Manufacturing | <input type="checkbox"/> Pharmaceutical |
| <input type="checkbox"/> Electroplating | <input type="checkbox"/> Plastic & Synthetic Materials |
| <input type="checkbox"/> Explosives Manufacturing | <input type="checkbox"/> Plastics Processing Manufacturing |
| <input type="checkbox"/> Feedlots | <input type="checkbox"/> Porcelain Enamel |
| <input type="checkbox"/> Ferroalloy Manufacturing | <input type="checkbox"/> Pulp, Paper, and Fiberboard Manufacturing |
| <input type="checkbox"/> Fertilizer Manufacturing | <input type="checkbox"/> Rubber |
| <input type="checkbox"/> Foundries (Metal Molding and Casting) | <input type="checkbox"/> Soap and Detergent Manufacturing |
| <input type="checkbox"/> Glass Manufacturing | <input type="checkbox"/> Steam and Electric |
| <input type="checkbox"/> Grain Mills | <input type="checkbox"/> Sugar Processing |
| <input type="checkbox"/> Gum and Wood Chemicals Manufacturing | <input type="checkbox"/> Textile Mills |
| <input checked="" type="checkbox"/> Inorganic Chemicals | <input type="checkbox"/> Timber Products |
| <input type="checkbox"/> Iron and Steel | <input type="checkbox"/> Transportation Equipment Cleaning |
| <input type="checkbox"/> Leather Tanning and Finishing | <input type="checkbox"/> Waste Combustion |
| <input type="checkbox"/> Metal Finishing | <input type="checkbox"/> Other (specify) _____ |
| <input type="checkbox"/> Meat Products | |

A facility with processes inclusive in these business areas may be covered by Environmental Protection (EPA) categorical standards. These facilities are termed "categorical users" and should skip to question 2 of Section C.

3. Give a brief description of all operations at this facility including primary products or services (attach additional sheets if necessary):

The Mobile facility produces sodium silicate. The facility is also a terminal for sodium hydroxide which is barged in from another Occidental

Chemical facility. The sodium silicate process uses sand and soda ash that is mixed and processed in a furnace to produce sodium silicate.

13. If the Applicant's business entity is a Proprietorship, please enter the proprietor's information.

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

14. Permit numbers for Applicant's previously issued NPDES Permits and identification of any other State of Alabama Environmental Permits presently held by the Applicant, its parent corporation, or subsidiary corporations within the State of Alabama:

<u>Permit Name</u>	<u>Permit Number</u>	<u>Held By</u>
See Supplemental Sheet		
_____	_____	_____
_____	_____	_____
_____	_____	_____

15. Identify all Administrative Complaints, Notices of Violation, Directives, Administrative Orders, or Litigation concerning water pollution, if any, against the Applicant, its parent corporation or subsidiary corporations within the State of Alabama within the past five years (attach additional sheets if necessary):

<u>Facility Name</u>	<u>Permit Number</u>	<u>Type of Action</u>	<u>Date of Action</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

SECTION B – BUSINESS ACTIVITY

1. Indicate applicable Standard Industrial Classification (SIC) Codes for all processes (If more than one applies, list in order of importance:

- a. 2819 _____
- b. _____
- c. _____
- d. _____
- e. _____

SECTION C – WASTEWATER DISCHARGE INFORMATION

Facilities that checked activities in question 2 of Section B and are considered Categorical Industrial Users should skip to question 2 of this section.

1. **For Non-Categorical Users Only:** Provide wastewater flows for each of the processes or proposed processes. Using the process flow schematic (Figure 1, pg 14), enter the description that corresponds to each process. [New facilities should provide estimates for each discharge.]

Process Description	Last 12 Months (gals/day) Highest Month Avg. Flow	Highest Flow Year of Last 5 (gals/day) Monthly Avg. Flow	Discharge Type (batch, continuous, intermittent)
Outfall 001	13,393	12,136	Continuous
Outfall 002	35,774	23,704	Continuous

If batch discharge occurs or will occur, indicate: [New facilities may estimate.]

- a. Number of batch discharges: _____ per day
- b. Average discharge per batch: _____ (GPD)
- c. Time of batch discharges _____ at _____
(days of week) (hours of day)
- d. Flow rate: _____ gallons/minute
- e. Percent of total discharge: _____

Non-Process Discharges (e.g non-contact cooling water)	Last 12 Months (gals/day) Highest Month Avg. Flow	Highest Flow Year of Last 5 (gals/day) Monthly Avg. Flow

2. **Complete this Section only if you are subject to Categorical Standards and plan to directly discharge the associated wastewater to a water of the State.** If Categorical wastewater is discharged exclusively via an indirect discharge to a public or privately-owned treatment works, check "Yes" in the appropriate space below and proceed directly to part 2.c .

[] Yes

For Categorical Users: Provide the wastewater discharge flows or production (whichever is applicable by the effluent guidelines) for each of your processes or proposed processes. Using the process flow schematic (Figure 1, pg 14), enter the description that corresponds to each process. [New facilities should provide estimates for each discharge.]

2a.

<u>Regulated Process</u>	<u>Applicable Category</u>	<u>Applicable Subpart</u>	<u>Type of Discharge Flow (batch, continuous, intermittent)</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

2b.

<u>Process Description</u>	<u>Last 12 Months (gals/day) Highest Month Average*</u>	<u>Highest Flow Year of Last 5 (gals/day) Monthly Average*</u>	<u>Discharge Type (batch, continuous, intermittent)</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

*** Reported values should be expressed in units of the applicable Federal production-based standard. For example, flow (MGD), production (pounds per day), etc.**

If batch discharge occurs or will occur, indicate: [New facilities may estimate.]

- a. Number of batch discharges: _____ per day
- b. Average discharge per batch: _____ (GPD)
- c. Time of batch discharges _____ at _____
(days of week) (hours of day)
- d. Flow rate: _____ gallons/minute

Percent of total discharge: _____

2c.

<u>Non categorical Process Description</u>	<u>Last 12 Months (gals/day) Highest Month Avg. Flow</u>	<u>Highest Flow Year of Last 5 (gals/day) Monthly Avg. Flow</u>	<u>Discharge Type (batch, continuous, intermittent)</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

If batch discharge occurs or will occur, indicate: [New facilities may estimate.]

- a. Number of batch discharges: _____ per day
- b. Average discharge per batch: _____ (GPD)
- c. Time of batch discharges _____ at _____
(days of week) (hours of day)
- d. Flow rate: _____ gallons/minute

Percent of total discharge: _____

2d.

Non-Process Discharges (e.g. non-contact cooling water)	Last 12 Months (gals/day) Highest Month Avg. Flow	Highest Flow Year of Last 5 (gals/day) Monthly Avg. Flow
_____	_____	_____
_____	_____	_____

All Applicants must complete Questions 3 – 5.

3. Do you have, or plan to have, automatic sampling equipment or continuous wastewater flow metering equipment at this facility?

Flow Metering	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
Sampling Equipment	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>

If so, please indicate the present or future location of this equipment on the sewer schematic and describe the equipment below:

Outfall 001: Fischer Porter Magnetic Flowmeter 4", Model# 75SN15PL29K612A111202

Outfall 002: Greyline Instruments Model# OCF-1V-A1A1M1A4A

4. Are any process changes or expansions planned during the next three years that could alter wastewater volumes or characteristics? Yes _____ No (If no, skip Question 5)

Briefly describe these changes and their anticipated effects on the wastewater volume and characteristics:

5. List the trade name and chemical composition of all biocides and corrosion inhibitors used:

Trade Name	Chemical Composition
_____	_____
_____	_____
_____	_____

For each biocide and/or corrosion inhibitor used, please include the following information:

- (1) 96-hour median tolerance limit data for organisms representative of the biota of the waterway into which the discharge will ultimately reach,
- (2) quantities to be used,
- (3) frequencies of use,
- (4) proposed discharge concentrations, and
- (5) EPA registration number, if applicable

SECTION D – WATER SUPPLY

Water Sources (check as many as are applicable):

Private Well

Surface Water

Municipal Water Utility (Specify City):

Other (Specify): Mobile - (MAWSS)

IF MORE THAN ONE WELL OR SURFACE INTAKE, PROVIDE DATA FOR EACH ON AN ATTACHMENT

City: 0.054 *MGD Well: _____ *MGD Well Depth: _____ Ft. Latitude: _____ Longitude: _____

Surface Intake Volume: _____ *MGD Intake Elevation in Relation to Bottom _____ Ft.

Intake Elevation: _____ Ft. Latitude: _____ Longitude: _____

Name of Surface Water Source: _____

* MGD – Million Gallons per Day

Cooling Water Intake Structure Information

Complete questions 1 and 2 if your water supply is provided by an outside source and not by an onsite water intake structure? (e.g., another industry, municipality, etc...)

1. Does the provider of your source water operate a surface water intake? Yes No
(If yes, continue, if no, go to Section E.)

a) Name of Provider _____ b) Location of Provider _____

c) Latitude: _____ Longitude: _____

2. Is the provider a public water system (defined as a system which provides water to the public for human consumption or which provides only treated water, not raw water)? Yes No
(If yes, go to Section E, if no, continue.)

Only to be completed if you have a cooling water intake structure or the provider of your water supply uses an intake structure and does not treat the raw water.

3. Is any water withdrawn from the source water used for cooling? Yes No

4. Using the average monthly measurements over any 12-month period, approximately what percentage of water withdrawn is used exclusively for cooling purposes? _____%

5. Does the cooling water consist of treated effluent that would otherwise be discharged? Yes No
(If yes, go to Section E, if no, complete questions 6 – 17.)

6. Is the cooling water used in a once-through or closed cycle cooling system? Yes No

7. When was the intake installed?
(Please provide dates for all major construction/installation of intake components including screens)

8. What is the maximum intake volume?
(maximum pumping capacity in gallons per day)

9. What is the average intake volume?
(average intake pump rate in gallons per day average in any 30-day period)

10. How is the intake operated? (e.g., continuously, intermittently, batch)
11. What is the mesh size of the screen on your intake?
12. What is the intake screen flow-through area?
13. What is the through screen design intake flow velocity? _____ ft/sec
14. What is the mechanism for cleaning the screen? (e.g., does it rotate for cleaning)
15. Do you have any additional fish detraction technology on your intake? Yes No
16. Have there been any studies to determine the impact of the intake on aquatic organisms? Yes No (If yes please provide.)
17. Attach a site map showing the location of the water intake in relation to the facility, shoreline, water depth, etc.

SECTION E – WASTE STORAGE AND DISPOSAL INFORMATION

Provide a description of the location of all sites involved in the storage of solids or liquids that could be accidentally discharged to a water of the state, either directly or indirectly via such avenues as storm water drainage, municipal wastewater systems, etc., which are located at the facility for which the NPDES application is being made. Where possible, the location should be noted on a map and included with this application:

Description of Waste	Description of Storage Location
Wastewater filter cake stored in 20 yd. roll-off	North of wastewater treatment plant

Provide a description of the location of the ultimate disposal sites of solid or liquid waste by-products (such as sludges) from any wastewater treatment system located at the facility.

Description of Waste	Quantity (lbs/day)	Disposal Method*
Wastewater filter cake	190	Non-Haz Landfill; Chastang, Permit 49-05

***Indicate which wastes identified above are disposed of at an off-site treatment facility and which are disposed of on-site. If any wastes are sent to an off-site centralized waste treatment facility, identify the waste and the facility.**

SECTION F – COASTAL ZONE INFORMATION

Is the discharge(s) located within 10-foot elevation of Mobile or Baldwin County?

Yes [] No [] If yes, then complete items A through M below:

YES **NO**

A. Does the project require new construction?

B. Will the project be a source of new air emissions?

C. Does the project involve dredging and/or filling?

Has the Corps of Engineers (COE) permit been received?

Corps Project Number _____

D. Does the project involve wetlands and/or submersed grassbeds?

E. Are oyster reefs located near the project site?
(Include a map showing project and discharge location with respect to oyster reefs)

F. Does the project involve the siting, construction and operation of an energy facility as defined in ADEM Admin. Code R. 335-8-1-.02(bb)?

G. Does the project involve shoreline erosion mitigation?

H. Does the project involve construction on beaches and dunes?

I. Will the project interfere with public access to coastal waters?

J. Does the project lie within the 100-year floodplain?

K. Does the project involve the registration, sale, use, or application of pesticides?

L. Does the project propose to construct a new well or alter an existing well to pump more than 50 GPD?

M. Has the applicable permit been obtained?

SECTION G – ANTI-DEGRADATION EVALUATION

In accordance with 40 CFR 131.12 and the Alabama Department of Environmental Management Administrative Code, Section 335-6-10-.04 for antidegradation, the following information must be provided, if applicable. It is the applicant's responsibility to demonstrate the social and economic importance of the proposed activity. If further information is required to make this demonstration, attach additional sheets to the application.

1. Is this a new or increased discharge that began after April 3, 1991? Yes [] No []
If yes, complete question 2 below. If no, go to Section H.

2. Has an Anti-Degradation Analysis been previously conducted and submitted to the Department for the new or increased discharge referenced in question 1? Yes [] No []

If yes, do not complete this section.

If no, and the discharge is to a Tier II waterbody as defined in ADEM Admin. Code r. 335-6-10-.12(4), complete questions A through F below and ADEM forms 311 and 313 (attached). Form 313 must be provided for each alternative considered technically viable.

Information required for new or increased discharges to high quality waters:

- A. What environmental or public health problem will the discharger be correcting?
- B. How much will the discharger be increasing employment (at its existing facility or as the result of locating a new facility)?
- C. How much reduction in employment will the discharger be avoiding?
- D. How much additional state or local taxes will the discharger be paying?
- E. What public service to the community will the discharger be providing?
- F. What economic or social benefit will the discharger be providing to the community?

SECTION H – EPA Application Forms

All Applicants must submit EPA permit application forms. More than one application form may be required from a facility depending on the number and types of discharges or outfalls found there. The EPA application forms are found on the Department's website at <http://www.adem.state.al.us/>. The EPA application forms must be submitted in duplicate as follows:

1. All applicants must submit Form 1.
2. Applicants for existing industrial facilities (including manufacturing facilities, commercial facilities, mining activities, and silvicultural activities) which discharge process wastewater must submit Form 2C.
3. Applicants for new industrial facilities which propose to discharge process wastewater must submit Form 2D.
4. Applicants for new and existing industrial facilities which discharge only non-process wastewater (i.e., non-contact cooling water and/or sanitary wastewater) must submit Form 2E.
5. Applicants for new and existing facilities whose discharge is composed entirely of storm water associated with industrial activity must submit Form 2F, unless exempted by § 122.26(c)(1)(ii). If the discharge is composed of storm water and non-storm water, the applicant must also submit Forms 2C, 2D, and/or 2E, as appropriate (in addition to Form 2F).

SECTION I – ENGINEERING REPORT/BMP PLAN REQUIREMENTS

See ADEM 335-6-6-.08(i) & (j)

SECTION J- RECEIVING WATERS

Receiving Water(s)	303(d) Segment? (Y / N)	Included in TMDL?*
Chickasaw Creek	Y	N

- *If a TMDL Compliance Schedule is requested, the following should be attached as supporting documentation:
- (1) Justification for the requested Compliance Schedule (e.g. time for design and installation of control equipment, etc.);
 - (2) Monitoring results for the pollutant(s) of concern which have not previously been submitted to the Department (sample collection dates, analytical results (mass and concentration), methods utilized, MDL/ML, etc. should be submitted as available);
 - (3) Requested interim limitations, if applicable;
 - (4) Date of final compliance with the TMDL limitations; and,
 - (5) Any other additional information available to support requested compliance schedule.

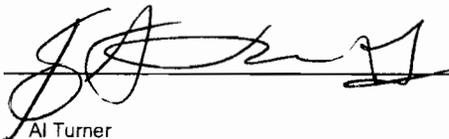
SECTION K – APPLICATION CERTIFICATION

THE INFORMATION CONTAINED IN THIS FORM MUST BE CERTIFIED BY A RESPONSIBLE OFFICIAL AS DEFINED IN ADEM ADMINISTRATIVE RULE 335-6-6-.09 "SIGNATORIES TO PERMIT APPLICATIONS AND REPORTS" (SEE BELOW).

"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 FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS."

"I FURTHER CERTIFY UNDER PENALTY OF LAW THAT ALL ANALYSES REPORTED AS LESS THAN DETECTABLE IN THIS APPLICATION OR ATTACHMENTS THERETO WERE PERFORMED USING THE EPA APPROVED TEST METHOD HAVING THE LOWEST DETECTION LIMIT FOR THE SUBSTANCE TESTED."

SIGNATURE OF RESPONSIBLE OFFICIAL.



DATE SIGNED: 2/24/16

(TYPE OR PRINT) NAME OF RESPONSIBLE OFFICIAL:

Al Turner

TITLE OF RESPONSIBLE OFFICIAL: Plant Manager

MAILING ADDRESS: 1300 Jarvis Road

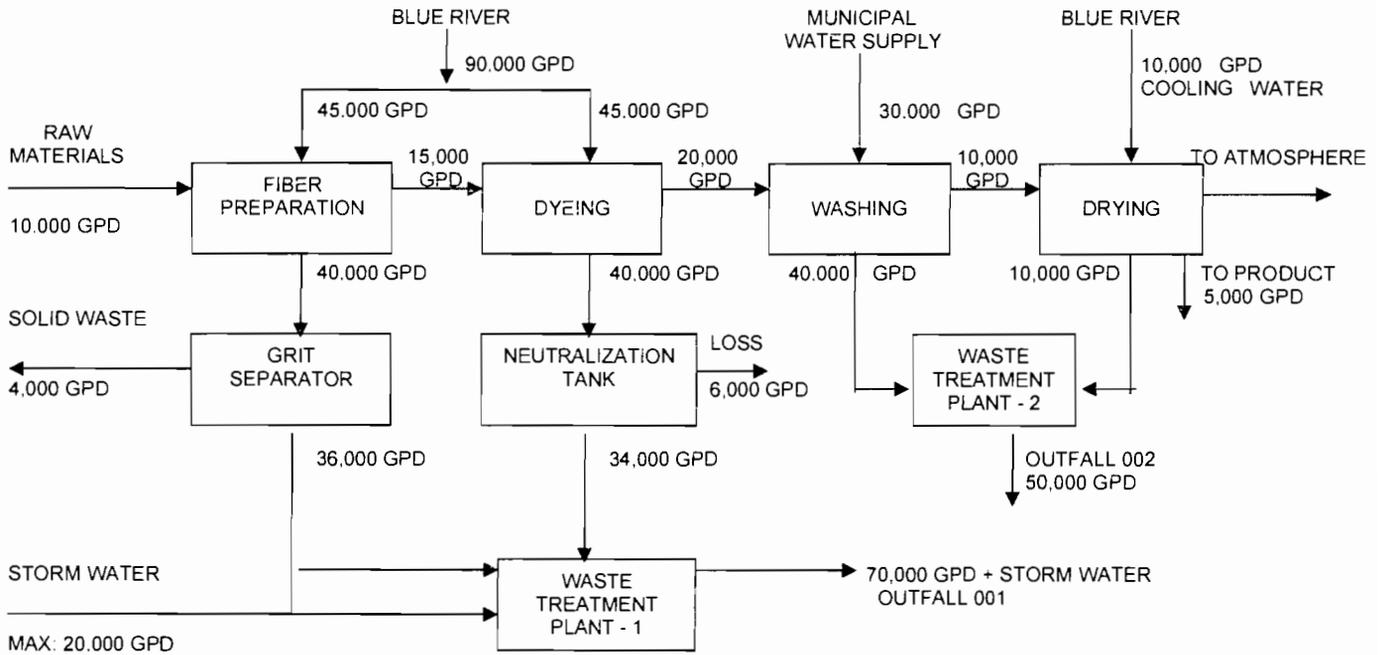
CITY, STATE, ZIP: Mobile, AL 36614

PHONE: 251-452-7661

335-6-6-.09 SIGNATORIES TO PERMIT APPLICATIONS AND REPORTS.

- (1) The application for an NPDES permit shall be signed by a responsible official, as indicated below:
 - (a) In the case of a corporation, by a principal executive officer of at least the level of vice president, or a manager assigned or delegated in accordance with corporate procedures, with such delegation submitted in writing if required by the Department, who is responsible for manufacturing, production, or operating facilities and is authorized to make management decisions which govern the operation of the regulated facility;
 - (b) In the case of a partnership, by a general partner;
 - (c) In the case of a sole proprietorship, by the proprietor; or
 - (d) In the case of a municipal, state, federal, or other public entity, by either a principal executive officer, or ranking elected official.

FIGURE 1

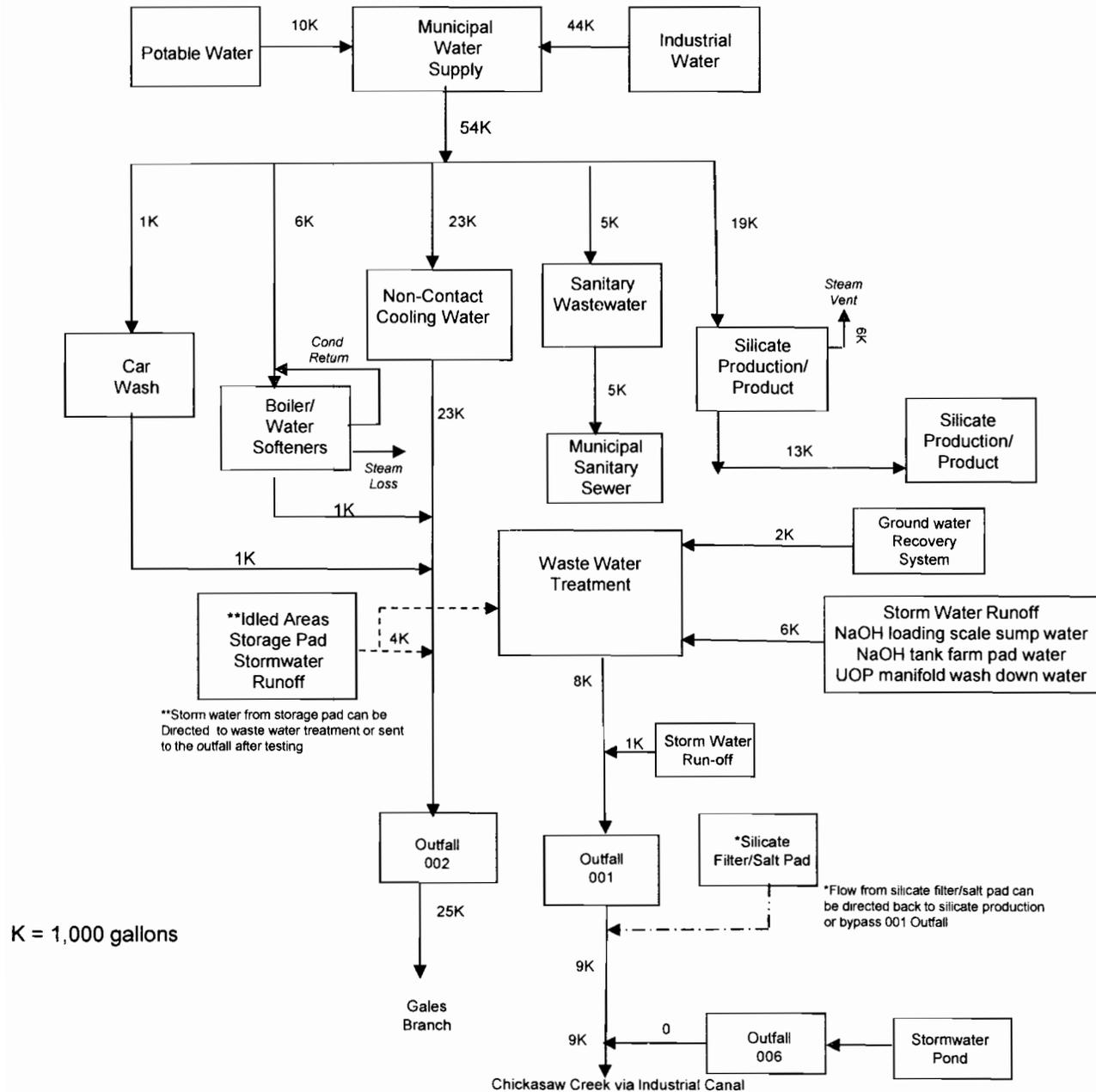


SCHEMATIC OF WATER FLOW
BROWN MILLS INC
CITY, COUNTY, STATE

Supplement to ADEM Form 187
Section A, Part 10(d)
Corporate Officers

Name	Title	Address
Vicki A. Hollub	President and Chief Operating Officer, Occidental Petroleum Corporation	5 Greenway Plaza, Houston, TX 77046
Robert L. Peterson	President, Occidental Chemical Corporation	5005 LBJ Freeway Dallas, Texas 75244 P.O. Box 809050 Dallas, Texas 75380-9050
Wade L. Alleman	Sr. VP of Manufacturing, Engineering and Technology	5005 LBJ Freeway Dallas, Texas 75244 P.O. Box 809050 Dallas, Texas 75380-9050

Attachment to EPA Form 20 Section II.A. Water Balance and Line Flow Diagram Occidental Chemical Corporation, Mobile, AL



**Supplement to ADEM Form 187
Section C, Part 5
Biocides and Corrosion Inhibitors**

Additive Name	Trade Name	Frequency of Use	Purpose	Affected Areas	Quantities to be Used	Proposed Discharge Concentrations*	EPA Registration Number	96-hour Median Tolerance Limit
Sodium Sulfite (7757-82-6) Inorganic Solvent (Proprietary)	NexGuard 22310	Continuous	Boiler Water Treatment	Boilers	2,000 lbs/yr	73 mg/L	N/A	7,070 mg/L Rainbow trout 1,086 mg/L Fathead minnow
Sodium Bisulfite (7631-90-5) Potassium Bisulfite (7773-03-7)	Nalco 1720	Continuous	Boiler Water Treatment	Boilers	1,400 lbs/yr	51 mg/L	N/A	383 mg/L Fathead minnow >5,000 mg/L Inland silverside

Supplement to ADEM Form 187
Section A, Part 13
Permit Numbers for Applicant

Permit Name	Permit Number	Held by
NPDES	AL0003514	Occidental Chemical Corp, Mobile, AL
NPDES	AL0000213	Occidental Chemical Corp, Muscle Shoals, AL
Air Quality	0109705003	Occidental Chemical Corp, Mobile, AL
Air Quality	0103300002	Occidental Chemical Corp, Muscle Shoals, AL
Hazardous Waste Facility	ALD008163388	Occidental Chemical Corp, Mobile, AL
Hazardous Waste Facility	ALD004019642	Occidental Chemical Corp, Muscle Shoals, AL
UIC	ALSI9949671	Occidental Chemical Corp, Mobile, AL

NexGuard® 22310

Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : NexGuard® 22310

Other means of identification : Not applicable.

Recommended use : BOILER WATER INTERNAL TREATMENT

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company
1601 W. Diehl Road
Naperville, Illinois 60563-1198
USA
TEL: (630)305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 11/06/2014

Section: 2. HAZARDS IDENTIFICATION

GHS Classification

Not a hazardous substance or mixture.

GHS Label element

Precautionary Statements : **Prevention:**
Wash hands thoroughly after handling.
Response:
Specific measures: consult MSDS Section 4.
Storage:
Store in accordance with local regulations.

Other hazards : None known.

Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

No hazardous ingredients

Section: 4. FIRST AID MEASURES

In case of eye contact : Rinse with plenty of water. Get medical attention if symptoms occur.

In case of skin contact : Wash off with soap and plenty of water. Get medical attention if symptoms occur.

If swallowed : Rinse mouth. Get medical attention if symptoms occur.

If inhaled : Get medical attention if symptoms occur.

Protection of first-aiders : In event of emergency assess the danger before taking action. Do

SAFETY DATA SHEET

NexGuard® 22310

not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.

- Notes to physician : Treat symptomatically.
- Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

Section: 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : None known.
- Specific hazards during firefighting : Not flammable or combustible.
- Hazardous combustion products : Carbon oxides nitrogen oxides (NOx) Sulphur oxides
- Special protective equipment for firefighters : Use personal protective equipment.
- Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Section: 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : No special environmental precautions required.
- Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

Section: 7. HANDLING AND STORAGE

- Advice on safe handling : For personal protection see section 8. Wash hands after handling.
- Conditions for safe storage : Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.

SAFETY DATA SHEET

NexGuard® 22310

- Suitable material : The following compatibility data is suggested based on similar product data and/or industry experience: PVC, Stainless Steel 304, EPDM, Buna-N, HDPE (high density polyethylene), Polyurethane, Neoprene, Polypropylene, Polyethylene, Stainless Steel 316L, 100% phenolic resin liner, Chlorosulfonated polyethylene rubber, Fluoroelastomer, Compatibility with Plastic Materials can vary; we therefore recommend that compatibility is tested prior to use.
- Unsuitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Brass, Mild steel, Epoxy phenolic resin

Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

- Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Personal protective equipment

- Eye protection : Safety glasses
- Hand protection : Wear protective gloves.
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
- Skin protection : Wear suitable protective clothing.
- Respiratory protection : No personal respiratory protective equipment normally required.
- Hygiene measures : Wash hands before breaks and immediately after handling the product.

Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : Liquid
- Colour : Fluorescent
Orange
Yellow
- Odour : ammoniacal
- Flash point : does not flash
- pH : 8.5 - 12.5, (25 °C)
- Odour Threshold : no data available
- Melting point/freezing point : FREEZING POINT: -6 °C, ASTM D-1177
- Initial boiling point and boiling range : no data available
- Evaporation rate : no data available
- Flammability (solid, gas) : no data available
- Upper explosion limit : no data available

SAFETY DATA SHEET

NexGuard® 22310

Lower explosion limit	: no data available
Vapour pressure	: similar to water
Relative vapour density	: no data available
Relative density	: 1.19 (25 °C) ASTM D-1298
Density	: 9.9 lb/gal
Water solubility	: completely soluble
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition temperature	: no data available
Viscosity, dynamic	: no data available
Viscosity, kinematic	: no data available
VOC	: 0 %

Section: 10. STABILITY AND REACTIVITY

Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: Freezing temperatures.
Incompatible materials	: Contact with strong oxidizers (e.g. chlorine, peroxides, chromates, nitric acid, perchlorate, concentrated oxygen, permanganate) may generate heat, fires, explosions and/or toxic vapors.
Hazardous decomposition products	: Oxides of carbon Oxides of nitrogen Oxides of sulfur

Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

Potential Health Effects

Eyes	: Health injuries are not known or expected under normal use.
Skin	: Health injuries are not known or expected under normal use.
Ingestion	: Health injuries are not known or expected under normal use.
Inhalation	: Health injuries are not known or expected under normal use.
Chronic Exposure	: Health injuries are not known or expected under normal use.

Experience with human exposure

Eye contact : No symptoms known or expected.

SAFETY DATA SHEET

NexGuard® 22310

Skin contact : No symptoms known or expected.
Ingestion : No symptoms known or expected.
Inhalation : No symptoms known or expected.

Toxicity

Product

Acute oral toxicity : no data available
Acute inhalation toxicity : no data available
Acute dermal toxicity : no data available
Skin corrosion/irritation : no data available
Serious eye damage/eye irritation : no data available
Respiratory or skin sensitization : no data available
Carcinogenicity : no data available
Reproductive effects : no data available
Germ cell mutagenicity : no data available
Teratogenicity : no data available
STOT - single exposure : no data available
STOT - repeated exposure : no data available
Aspiration toxicity : no data available

Section: 12. ECOLOGICAL INFORMATION

Ecotoxicity

Environmental Effects : This product has no known ecotoxicological effects.

Product

Toxicity to fish : LC50 Oncorhynchus mykiss (rainbow trout): 7,070 mg/l
Exposure time: 96 hrs
Test substance: Product

LC50 Inland Silverside: > 5,000 mg/l
Exposure time: 96 hrs
Test substance: Product

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LC50 Fathead Minnow: 2,935 mg/l
Exposure time: 48 hrs
Test substance: Product

LC50 Fathead Minnow: 2,861 mg/l
Exposure time: 96 hrs
Test substance: Product

Product

Toxicity to daphnia and other aquatic invertebrates : LC50 Daphnia magna (Water flea): 1,650 mg/l
Exposure time: 48 hrs
Test substance: Product

LC50 Mysid Shrimp (Mysidopsis bahia): > 5,000 mg/l
Exposure time: 96 hrs
Test substance: Product

LC50 Ceriodaphnia dubia: 1,473 mg/l
Exposure time: 48 hrs
Test substance: Product

Product

Toxicity to algae : LC50 Algae: 10 mg/l
Exposure time: 72 hrs

Persistence and degradability

The organic portion of this preparation is expected to be poorly biodegradable.

Total Organic Carbon (TOC) : 87,000 mg/l

Chemical Oxygen Demand (COD): 240,000 mg/l

Biochemical Oxygen Demand (BOD):

Incubation Period	Value	Test Descriptor
5 d	6,200 mg/l	Product

Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air	: <5%
Water	: 10 - 30%
Soil	: 50 - 70%

The portion in water is expected to be soluble or dispersible.

Bioaccumulative potential

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This preparation or material is not expected to bioaccumulate.

Other information

no data available

Section: 13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it is not a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D.

Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport (DOT)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

Air transport (IATA)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

Sea transport (IMDG/IMO)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

Section: 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : No SARA Hazards

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

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SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

INTERNATIONAL CHEMICAL CONTROL LAWS :

TOXIC SUBSTANCES CONTROL ACT (TSCA)

The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

AUSTRALIA

All substances in this product comply with the National Industrial Chemicals Notification & Assessment Scheme (NICNAS).

CHINA

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

EUROPE

The substance(s) in this preparation are included in or exempted from the EINECS or ELINCS inventories

JAPAN

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

KOREA

This product contains substance(s) which are not in compliance with the Toxic Chemical Control Law (TCCL) and may require additional review.

NEW ZEALAND

All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996, and are listed on or are exempt from the New Zealand Inventory of Chemicals.

PHILIPPINES

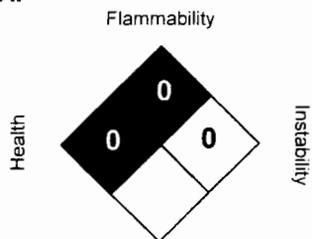
All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

Section: 16. OTHER INFORMATION

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NFPA:



Special hazard.

HMIS III:

HEALTH	0
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 = Extreme. * = Chronic

Revision Date : 11/06/2014
Version Number : 1.1
Prepared By : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

For additional copies of an MSDS visit www.nalco.com and request access.

Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : NALCO® 1720

Other means of identification : Not applicable.

Recommended use : OXYGEN SCAVENGER

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : Nalco Company
1601 W. Diehl Road
Naperville, Illinois 60563-1198
USA
TEL: (630)305-1000

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 02/06/2015

Section: 2. HAZARDS IDENTIFICATION

GHS Classification

Acute toxicity (Oral) : Category 4
Serious eye damage/eye irritation : Category 1

GHS Label element

Hazard pictograms :



Signal Word : Danger

Hazard Statements : Harmful if swallowed.
Causes serious eye damage.

Precautionary Statements : **Prevention:**
Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear eye protection/face protection.
Response:
IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician. Rinse mouth.
Storage:
Protect product from freezing.
Disposal:
Dispose of contents/ container to an approved waste disposal plant.

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Other hazards : None known.

Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture
Mixture

Chemical Name	CAS-No.	Concentration: (%)
Sodium Bisulfite	7631-90-5	10 - 30
Potassium Bisulfite	7773-03-7	1 - 5

Section: 4. FIRST AID MEASURES

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

In case of skin contact : Wash off with soap and plenty of water. Get medical attention if symptoms occur.

If swallowed : Rinse mouth. Get medical attention if symptoms occur.

If inhaled : Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.

Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.

Notes to physician : Treat symptomatically.

Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

Section: 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : None known.

Specific hazards during firefighting : Not flammable or combustible.

Hazardous combustion products : Carbon oxides
Decomposition products may include the following materials:
metal oxides

Special protective equipment for firefighters : Use personal protective equipment.

SAFETY DATA SHEET

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Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

Section: 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.

Environmental precautions : Do not allow contact with soil, surface or ground water.

Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Flush away traces with water.

Section: 7. HANDLING AND STORAGE

Advice on safe handling : Do not ingest. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after handling. Use only with adequate ventilation.

Conditions for safe storage : Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers. Amine and sulphite products should not be stored within close proximity or resulting vapors may form visible airborne particles. Protect product from freezing.

Suitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Polypropylene, Buna-N, EPDM, Polyethylene, Polyurethane, PVC, Neoprene, Chlorosulfonated polyethylene rubber, Fluoroelastomer
The following compatibility data is suggested based on similar product data and/or industry experience: Compatibility with Plastic Materials can vary; we therefore recommend that compatibility is tested prior to use.

Unsuitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Brass, Mild steel, Stainless Steel 304, Stainless Steel 316L, 100% phenolic resin liner, Epoxy phenolic resin
The following compatibility data is suggested based on similar product data and/or industry experience:

Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Sodium Bisulfite	7631-90-5	TWA	5 mg/m ³	ACGIH
		TWA	5 mg/m ³	NIOSH REL

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Engineering measures : Effective exhaust ventilation system Maintain air concentrations below occupational exposure standards.

Personal protective equipment

Eye protection : Safety goggles
Face-shield

Hand protection : Wear protective gloves.
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Wear suitable protective clothing.

Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid

Colour : clear

Odour : Pungent

Flash point : Method: ASTM D 93, Pensky-Martens closed cup
does not flash

pH : 3.5 - 4.1, 100 %
Method: ASTM E 70

Odour Threshold : no data available

Melting point/freezing point : FREEZING POINT: -11 °C, ASTM D-1177

Initial boiling point and boiling range : 96 °C (760 mm Hg)
Method: ASTM D 86

Evaporation rate : no data available

Flammability (solid, gas) : no data available

Upper explosion limit : no data available

Lower explosion limit : no data available

Vapour pressure : no data available

Relative vapour density : no data available

Relative density : 1.22 - 1.28 (15.6 °C)

Density : 10.1 - 10.7 lb/gal

Water solubility : completely soluble

Solubility in other solvents : no data available

Partition coefficient: n- : no data available

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octanol/water

Auto-ignition temperature : no data available

Thermal decomposition temperature : no data available

Viscosity, dynamic : 5 mPa.s (15 °C)
Method: ASTM D 2983

Viscosity, kinematic : no data available

VOC : no data available

Section: 10. STABILITY AND REACTIVITY

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : No dangerous reaction known under conditions of normal use.

Conditions to avoid : Freezing temperatures.

Incompatible materials : Contact with strong acids (e.g. sulfuric, phosphoric, nitric, hydrochloric, chromic, sulfonic) may generate heat, splattering or boiling and toxic vapors.
Contains Sulfite.
SO₂ may react with vapors from neutralizing amines and may produce a visible cloud of amine salt particles.

Hazardous decomposition products : Decomposition products may include the following materials:
metal oxides
Carbon oxides

Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

Potential Health Effects

Eyes : Causes serious eye damage.

Skin : Health injuries are not known or expected under normal use.

Ingestion : Harmful if swallowed.

Inhalation : Health injuries are not known or expected under normal use.

Chronic Exposure : Health injuries are not known or expected under normal use.

Experience with human exposure

Eye contact : Redness, Pain, Corrosion

Skin contact : Redness, Irritation, Allergic reactions
No symptoms known or expected.

Ingestion : No information available.

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No information available.

Inhalation : No symptoms known or expected.

Toxicity

Product

Acute oral toxicity : Acute toxicity estimate 1,782 mg/kg

Acute inhalation toxicity : no data available

Acute dermal toxicity : rabbit: > 3,000 mg/kg
Test substance: Similar Product

Skin corrosion/irritation : Result: 1.0
Method: Draize Test
Test substance: Similar Product

Serious eye damage/eye irritation : Result: 9.4
Method: Draize Test
Test substance: Similar Product

Respiratory or skin sensitization : Result: Contains an ingredient that can cause asthmatic-like reactions in sulfite-sensitive individuals.

Carcinogenicity : no data available

Reproductive effects : no data available

Germ cell mutagenicity : no data available

Teratogenicity : no data available

STOT - single exposure : no data available

STOT - repeated exposure : no data available

Aspiration toxicity : no data available

Components

Acute inhalation toxicity : Sodium Bisulfite
LC50 rat: 5.5 mg/l
Exposure time: 4 h

Section: 12. ECOLOGICAL INFORMATION

Ecotoxicity

Environmental Effects : This product has no known ecotoxicological effects.

Product

Toxicity to fish : LC50 Pimephales promelas (fathead minnow): 382 mg/l
Exposure time: 96 hrs

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Test substance: Product

LC50 Inland Silverside: > 5,000 mg/l

Exposure time: 96 hrs

Test substance: Product

NOEC Pimephales promelas (fathead minnow): 250 mg/l

Exposure time: 96 hrs

Test substance: Product

NOEC Inland Silverside: 5,000 mg/l

Exposure time: 96 hrs

Test substance: Product

Toxicity to daphnia and other : LC50 Daphnia magna (Water flea): 728 mg/l

aquatic invertebrates

Exposure time: 48 hrs

Test substance: Product

LC50 Mysid Shrimp (Mysidopsis bahia): > 5,000 mg/l

Exposure time: 96 hrs

Test substance: Product

NOEC Daphnia magna (Water flea): 250 mg/l

Exposure time: 48 hrs

Test substance: Product

NOEC Mysid Shrimp (Mysidopsis bahia): 5,000 mg/l

Exposure time: 96 hrs

Test substance: Product

Persistence and degradability

Greater than 95% of this product consists of inorganic substances for which a biodegradation value is not applicable.

Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air	:	<5%
Water	:	30 - 50%
Soil	:	50 - 70%

The portion in water is expected to be soluble or dispersible.

Bioaccumulative potential

The product will not bioaccumulate.

Other information

no data available

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Section: 13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it is not a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D.

Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport (DOT)

The presence of an RQ component (Reportable Quantity for U.S. EPA and DOT) in this product causes it to be regulated with an additional description of RQ for road, or as a class 9 for road and air, ONLY when the net weight in the package exceeds the calculated RQ for the product.

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Technical name(s) : SODIUM BISULFITE
UN/ID No. : UN 3082
Transport hazard class(es) : 9
Packing group : III
Reportable Quantity (per package) : 18,347 lbs
RQ Component : SODIUM BISULFITE

Air transport (IATA)

The presence of an RQ component (Reportable Quantity for U.S. EPA and DOT) in this product causes it to be regulated with an additional description of RQ for road, or as a class 9 for road and air, ONLY when the net weight in the package exceeds the calculated RQ for the product.

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Technical name(s) : SODIUM BISULFITE
UN/ID No. : UN 3082
Transport hazard class(es) : 9
Packing group : III
Reportable Quantity (per package) : 18,347 lbs
RQ Component : SODIUM BISULFITE

Sea transport (IMDG/IMO)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

Section: 15. REGULATORY INFORMATION

SAFETY DATA SHEET

NALCO® 1720

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sodium Bisulfite	7631-90-5	5000	18347

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Acute Health Hazard

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

INTERNATIONAL CHEMICAL CONTROL LAWS :

TOXIC SUBSTANCES CONTROL ACT (TSCA)

The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

AUSTRALIA

All substances in this product comply with the National Industrial Chemicals Notification & Assessment Scheme (NICNAS).

CHINA

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

EUROPE

The substances in this preparation have been reviewed for compliance with the EINECS or ELINCS inventories.

JAPAN

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

KOREA

All substances in this product comply with the Toxic Chemical Control Law (TCCL) and are listed on the Existing Chemicals List (ECL)

NEW ZEALAND

All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996, and are listed on or are exempt from the New Zealand Inventory of Chemicals.

SAFETY DATA SHEET

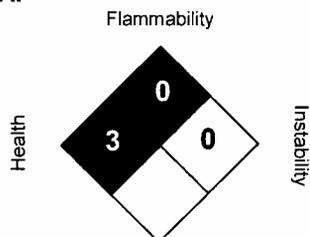
NALCO® 1720

PHILIPPINES

All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

Section: 16. OTHER INFORMATION

NFPA:



HMIS III:

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Revision Date : 02/06/2015
Version Number : 1.3
Prepared By : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

For additional copies of an MSDS visit www.nalco.com and request access.

FORM 1 GENERAL		U.S. ENVIRONMENTAL PROTECTION AGENCY GENERAL INFORMATION <i>Consolidated Permits Program</i> <i>(Read the "General Instructions" before starting.)</i>	I. EPA I.D. NUMBER <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:5%; text-align: center;">S</td> <td style="width:75%;"></td> <td style="width:10%; text-align: center;">T/A</td> <td style="width:10%; text-align: center;">C</td> </tr> <tr> <td style="text-align: center;">F</td> <td style="text-align: center;">ALD008163388</td> <td style="text-align: center;">D</td> <td style="text-align: center;">D</td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">13</td> <td style="text-align: center;">14</td> </tr> <tr> <td style="text-align: center;">15</td> <td style="text-align: center;">16</td> <td style="text-align: center;">17</td> <td style="text-align: center;">18</td> </tr> </table>	S		T/A	C	F	ALD008163388	D	D	1	2	13	14	15	16	17	18
S		T/A	C																
F	ALD008163388	D	D																
1	2	13	14																
15	16	17	18																

LABEL ITEMS		GENERAL INSTRUCTIONS
I. EPA I.D. NUMBER	ALD008163388	If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete items I, III, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorization under which this data is collected.
III. FACILITY NAME	OCCIDENTAL CHEMICAL CORPORATION	
V. FACILITY MAILING LIST	1300 JARVIS RD.	
VI. FACILITY LOCATION	MOBILE, AL 36114	

II. POLLUTANT CHARACTERISTICS
 INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.

SPECIFIC QUESTIONS	MARK "X"			SPECIFIC QUESTIONS	MARK "X"		
	YES	NO	FORM ATTACHED		YES	NO	FORM ATTACHED
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	16	17	18		19	20	21
C. Is this facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	D. Is this proposal facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	22	23	24		25	26	27
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	28	29	30		31	32	33
G. Do you or will you inject at this facility any produced water other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	34	35	36		37	38	39
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	40	41	42		43	44	45

III. NAME OF FACILITY

C	SKIP	Occidental Chemical Corporation	
1			
15	16-29	30	69

IV. FACILITY CONTACT

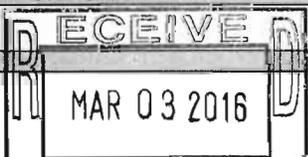
A. NAME & TITLE (last, first, & title)				B. PHONE (area code & no.)			
C	Turner, Al		251	452	7661		
2	Plant Manager						
15	16	45	46	48	49	51	52
					52	55	

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX							
C	1300 Jarvis Road						
3			45				
15	16	40	41	42	47	51	
B. CITY OR TOWN		C. STATE		D. ZIP CODE			
C	Mobile	AL	36614				
4							
15	16	40	41	42	47	51	

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER							
C	1300 Jarvis Road						
5			45				
15	16	40	41	42	47	51	
B. COUNTY NAME		C. CITY OR TOWN		D. STATE		E. ZIP CODE	
C	Mobile	Mobile	AL		36614		
6							
15	16	40	41	42	47	51	52
					52	54	



VII. SIC CODES (4-digit, in order of priority)

A. FIRST				B. SECOND			
C	7	15	17	7	15	16	19
	2819	(specify) Sodium Silicate Manufacturer			(specify)		
C. THIRD				D. FOURTH			
C	7	15	17	7	15	16	19
		(specify)			(specify)		

VIII. OPERATOR INFORMATION

A. NAME					B. is the name listed in item VIII-A also the owner?						
C	8	18	19	55	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO						
Occidental Chemical Corporation											
C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other," specify.)				D. PHONE (area code & no.)							
F = FEDERAL	M = PUBLIC (other than federal or state)	P	(specify)	C	15	16	18	19	21	22	25
S = STATE	O = OTHER (specify)	56		800	578	8880					
P = PRIVATE											

E. STREET OR PO BOX
P.O. Box 809050

F. CITY OR TOWN			G. STATE		H. ZIP CODE		IX. INDIAN LAND			
C	B	15	16	40	42	42	47	51	Is the facility located on Indian lands? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
Dallas			TX		75380					

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water)				D. PSD (Air Emissions from Proposed Sources)			
C	T	I	30	C	T	8	30
9	N			9	P		
15	16	17	18	15	16	17	18
AL0003514				0109705003 (Minor source)			
B. UIC (Underground Injection of Fluids)				E. OTHER (specify)			
C	T	I	30	C	T	8	30
9	U			9			
15	16	17	18	15	16	17	18
ALS19949671				(Specify)			
C. RCRA (Hazardous Wastes)				E. OTHER (specify)			
C	T	I	30	C	T	8	30
9	R			9			
15	16	17	18	15	16	17	18
ALD008163388				(Specify)			

XI. MAP

Attach to this application a topographic 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 and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS (provide a brief description)

The Mobile facility produces sodium silicate. The facility is also a terminal for sodium hydroxide which is barged in from other Occidental Chemical Facilities. The sodium silicate process uses sand and soda ash that is mixed in a furnace to produce sodium silicate.

XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)	B. SIGNATURE	C. DATE SIGNED
Al Turner, Plant Manager		2/24/16

COMMENTS FOR OFFICIAL USE ONLY

C	15	16	55
---	----	----	----

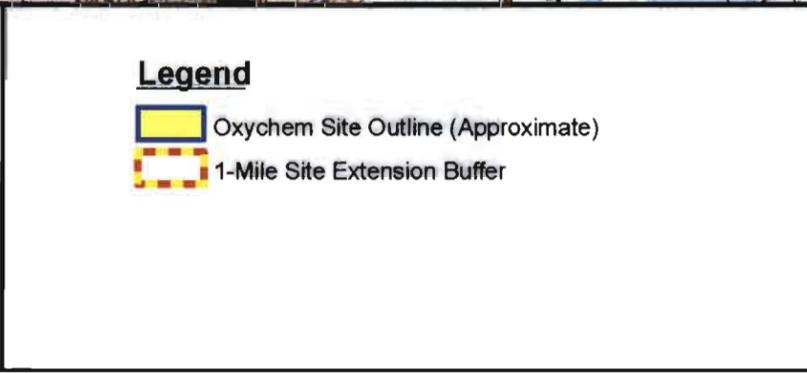
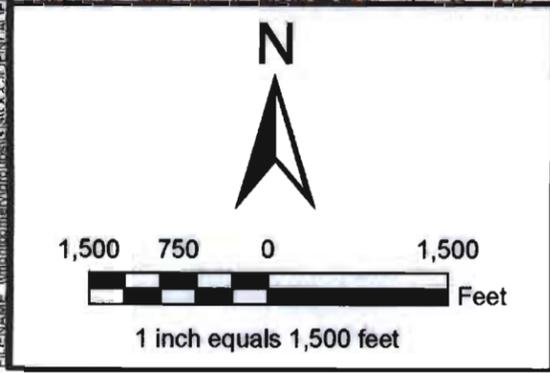
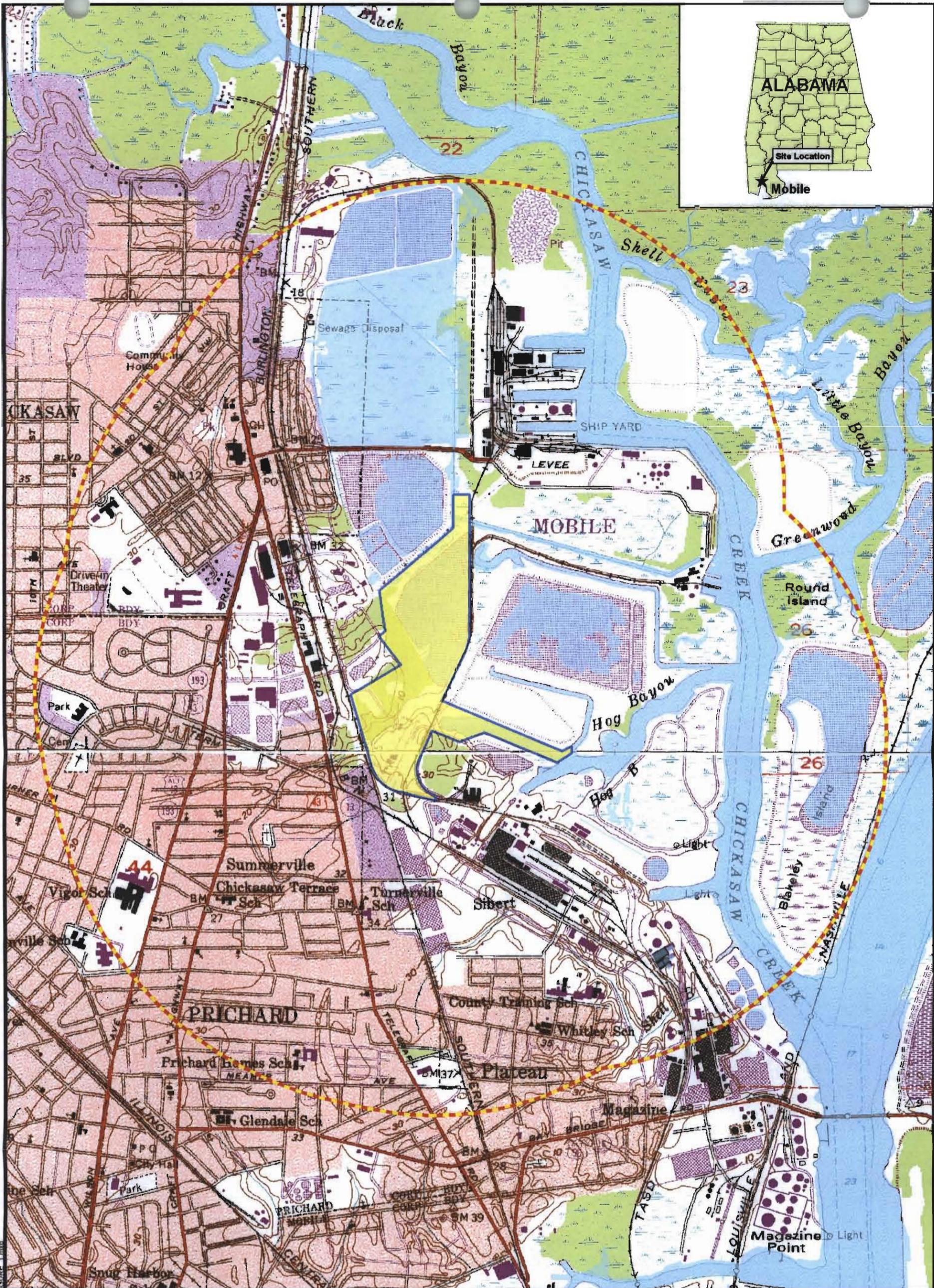


Figure 1
Site Overview
 Occidental Chemical Corp.
 Mobile Plant
 1300 Jarvis Road
 Mobile, AL 36614



FILENAME: \\ms01\home\m\m\res\GIS\DOCUMENT\AL\FIGURE_1.mxd

FORM 2E NPDES  Facilities Which Do Not Discharge Process Wastewater

I. RECEIVING WATERS

For this outfall, list the latitude and longitude, and name of the receiving water(s).

Outfall Number (list)	Latitude			Longitude			Receiving Water (name)
	Deg	Min	Sec	Deg	Min	Sec	
001	30.00	45.00	8.00	88.00	3.00	56.00	Chickasaw Creek via Industrial Canal

II. DISCHARGE DATE (If a new discharger, the date you expect to begin discharging)

III. TYPE OF WASTE

A. Check the box(es) indicating the general type(s) of wastes discharged.

- Sanitary Wastes
 Restaurant or Cafeteria Wastes
 Noncontact Cooling Water
 Other Nonprocess Wastewater (Identify)

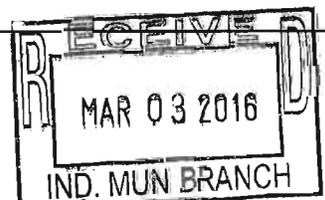
B. If any cooling water additives are used, list them here. Briefly describe their composition if this information is available.

IV. EFFLUENT CHARACTERISTICS

A. Existing Sources — Provide measurements for the parameters listed in the left-hand column below, unless waived by the permitting authority (see instructions).
B. New Dischargers — Provide estimates for the parameters listed in the left-hand column below, unless waived by the permitting authority. Instead of the number of measurements taken, provide the source of estimated values (see instructions).

Pollutant or Parameter	(1) Maximum Daily Value (include units)		(2) Average Daily Value (last year) (include units)		(3)	(or)	(4)
	Mass	Concentration	Mass	Concentration	Number of Measurements Taken (last year)	Source of Estimate (if new discharger)	
Biochemical Oxygen Demand (BOD)				8.4 mg/L			
Total Suspended Solids (TSS)				<5 mg/L			
Fecal Coliform (if believed present or if sanitary waste is discharged)				N/A			
Total Residual Chlorine (if chlorine is used)				N/A < 0.01 mg/L			
Oil and Grease				<4.6 mg/L			
*Chemical oxygen demand (COD)				30 mg/L			
*Total organic carbon (TOC)				4.3 mg/L			
Ammonia (as N)				<0.050 mg/L			
Discharge Flow	Value			0.048 MGD			
pH (give range)	Value			6.5-8.5			
Temperature (Winter)			°C	13.00 °C			
Temperature (Summer)			°C	30.00 °C			

*If noncontact cooling water is discharged



V. Except for leaks or spills, will the discharge described in this form be intermittent or seasonal? Yes No
If yes, briefly describe the frequency of flow and duration.

VI. TREATMENT SYSTEM (Describe briefly any treatment system(s) used or to be used)

pH control, filtration, and chemical precipitation

VII. OTHER INFORMATION (Optional)

Use the space below to expand upon any of the above questions or to bring to the attention of the reviewer any other information you feel should be considered in establishing permit limitations. Attach additional sheets, if necessary.

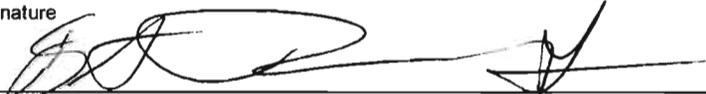
Stormwater runoff from idled chlor-alkali areas, washwaters from terminal operations, and treated groundwater.

VIII. 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 fine and imprisonment for knowing violations.

A. Name & Official Title
Al Turner, Plant Manager

B. Phone No. (area code & no.)
(251) 452-7661

C. Signature


D. Date Signed
2/24/16

FORM 2E NPDES  Facilities Which Do Not Discharge Process Wastewater

I. RECEIVING WATERS

For this outfall, list the latitude and longitude, and name of the receiving water(s).

Outfall Number (list)	Latitude			Longitude			Receiving Water (name)
	Deg	Min	Sec	Deg	Min	Sec	
002	30.00	45.00	2.00	88.00	4.00	4.00	Gales Branch

II. DISCHARGE DATE (If a new discharger, the date you expect to begin discharging)

III. TYPE OF WASTE

A. Check the box(es) indicating the general type(s) of wastes discharged.

- Sanitary Wastes
 Restaurant or Cafeteria Wastes
 Noncontact Cooling Water
 Other Nonprocess Wastewater (Identify)

B. If any cooling water additives are used, list them here. Briefly describe their composition if this information is available.

IV. EFFLUENT CHARACTERISTICS

A. Existing Sources — Provide measurements for the parameters listed in the left-hand column below, unless waived by the permitting authority (see instructions).
B. New Dischargers — Provide estimates for the parameters listed in the left-hand column below, unless waived by the permitting authority. Instead of the number of measurements taken, provide the source of estimated values (see instructions).

Pollutant or Parameter	(1) Maximum Daily Value (Include units)		(2) Average Daily Value (last year) (Include units)		(3)	(or)	(4)
	Mass	Concentration	Mass	Concentration	Number of Measurements Taken (last year)		Source of Estimate (if new discharger)
Biochemical Oxygen Demand (BOD)				<2.0 mg/L			
Total Suspended Solids (TSS)				5.0 mg/L			
Fecal Coliform (if believed present or if sanitary waste is discharged)				N/A			
Total Residual Chlorine (if chlorine is used)				N/A < 0.01 mg/L			
Oil and Grease				<5.1 mg/L			
*Chemical oxygen demand (COD)				<10 mg/L			
*Total organic carbon (TOC)				3.6 mg/L			
Ammonia (as N)				<0.050 mg/L			
Discharge Flow	Value			0.025 MGD			
pH (give range)	Value			6.5-8.5			
Temperature (Winter)			°C	19.00 °C			
Temperature (Summer)			°C	25.00 °C			

*If noncontact cooling water is discharged



V. Except for leaks or spills, will the discharge described in this form be intermittent or seasonal? Yes No

If yes, briefly describe the frequency of flow and duration.

VI. TREATMENT SYSTEM (Describe briefly any treatment system(s) used or to be used)

None

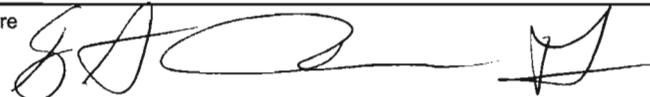
VII. OTHER INFORMATION (Optional)

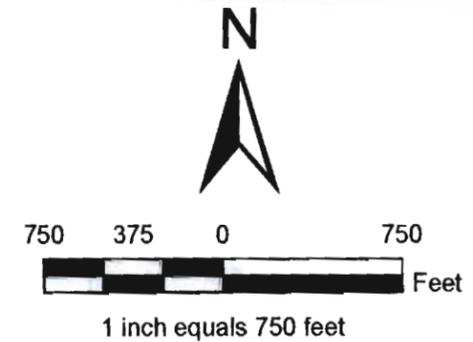
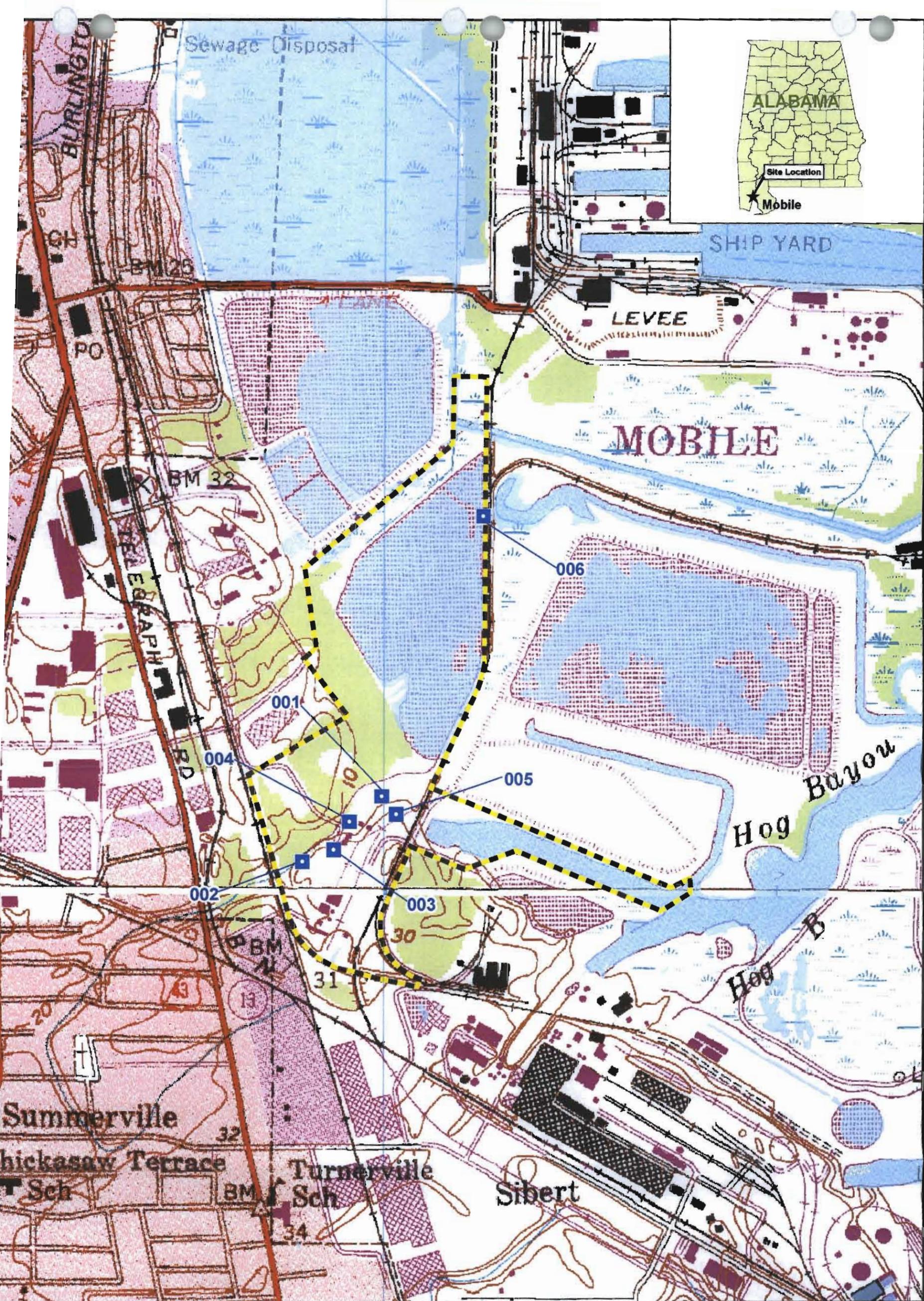
Use the space below to expand upon any of the above questions or to bring to the attention of the reviewer any other information you feel should be considered in establishing permit limitations. Attach additional sheets, if necessary.

Boiler blowdown, noncontact cooling water, car wash washwater, storage pad stormwater runoff.

VIII. 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 fine and imprisonment for knowing violations.

A. Name & Official Title Al Turner, Plant Manager	B. Phone No. (area code & no.) (251) 452-7661
C. Signature 	D. Date Signed 2/29/16



- Legend**
- Outfall Locations
 - Oxychem Site Outline (Approximate)

**Figure 2
Site Detail**
Occidental Chemical Corp.
Mobile Plant
1300 Jarvis Road
Mobile, AL 36614



Please print or type in the unshaded areas

EPA ID Number (copy from item 1 of Form 1)
ALD008163388

Form Approved. OMB No. 2040-0086
Approval expires 5-31-92

Form
2F
NPDES



United States Environmental Protection Agency
Washington, DC 20460

Application for Permit to Discharge Storm Water Discharges Associated with Industrial Activity

Paperwork Reduction Act Notice

Public reporting burden for this application is estimated to average 28.6 hours per application, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate, any other aspect of this collection of information or suggestions for improving this form, including suggestions which may increase or reduce this burden to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M St., SW, Washington, DC 20460, or Director, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

I. Outfall Location

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. Outfall Number (list)	B. Latitude			C. Longitude			D. Receiving Water (name)
001	30.00	45.00	8.24	88.00	3.00	56.77	Chickasaw Creek via Industrial Canal
002	30.00	45.00	2.68	88.00	4.00	4.00	Gales Branch
003	30.00	45.00	3.66	88.00	4.00	1.01	Gales Branch
004	30.00	45.00	6.02	88.00	3.00	59.49	Gales Branch
005	30.00	45.00	6.65	88.00	3.00	55.00	Gales Branch
006	30.00	45.00	30.11	88.00	3.00	57.52	Chickasaw Creek via Industrial Canal

II. Improvements

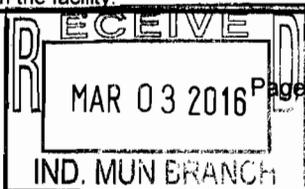
A. Are you now required by any Federal, State, or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

1. Identification of Conditions, Agreements, Etc.	2. Affected Outfalls		3. Brief Description of Project	4. Final Compliance Date	
	number	source of discharge		a. req.	b. proj.
N/A					

B. You may attach additional sheets describing any additional water pollution (or other environmental projects which may affect your discharges) you now have under way or which you plan. Indicate whether each program is now under way or planned, and indicate your actual or planned schedules for construction.

III. Site Drainage Map

Attach a site map showing topography (or indicating the outline of drainage areas served by the outfall(s) covered in the application if a topographic map is unavailable) depicting the facility including: each of its intake and discharge structures; the drainage area of each storm water outfall; paved areas and buildings within the drainage area of each storm water outfall, each known past or present areas used for outdoor storage or disposal of significant materials, each existing structure control measure to reduce pollutants in storm water runoff, materials loading and access areas, areas where pesticides, herbicides, soil conditioners and fertilizers are applied; each of its hazardous waste treatment, storage or disposal units (including each are not required to have a RCRA permit which is used for accumulating hazardous waste under 40 CFR 262.34); each well where fluids from the facility are injected underground; springs, and other surface water bodies which receive storm water discharges from the facility.



IV. Narrative Description of Pollutant Sources

A. For each outfall, provide an estimate of the area (include units) of impervious surfaces (including paved areas and building roofs) drained to the outfall, and an estimate of the total surface area drained by the outfall.

Outfall Number	Area of Impervious Surface (provide units)	Total Area Drained (provide units)	Outfall Number	Area of Impervious Surface (provide units)	Total Area Drained (provide units)
001	35,000 sq. ft.	40,000 sq. ft.	005	40,000 sq. ft.	206,000 sq. ft.
003	88,200 sq. ft.	161,600 sq. ft.	006	0 sq. ft.	2,041,825 sq. ft.
004	32,500 sq. ft.	36,000 sq. ft.			

B. Provide a narrative description of significant materials that are currently or in the past three years have been treated, stored or disposed in a manner to allow exposure to storm water; method of treatment, storage, or disposal; past and present materials management practices employed to minimize contact by these materials with storm water runoff; materials loading and access areas; and the location, manner, and frequency in which pesticides, herbicides, soil conditioners, and fertilizers are applied.

Materials that are susceptible to rainfall events are stored in covered areas to minimize storm water runoff that could come in contact with these materials. Pesticides and herbicides are used very infrequently.

C. For each outfall, provide the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of the treatment the storm water receives, including the schedule and type of maintenance for control and treatment measures and the ultimate disposal of any solid or fluid wastes other than by discharge.

Outfall Number	Treatment	List Codes from Table 2F-1
001	Wastewater Treatment System	4-A
003	Containment ditch valves have been installed to prevent the release of spills to surface waters.	4-A
004	Containment ditch valves have been installed to prevent the release of spills to surface waters.	4-A
005	Containment ditch valves have been installed to prevent the release of spills to surface waters.	4-A
006	Stormwater pond provides retention time for pollutants, if any, in stormwater to settle.	1-U

V. Non Stormwater Discharges

A. I certify under penalty of law that the outfall(s) covered by this application have been tested or evaluated for the presence of nonstormwater discharges, and that all nonstormwater discharges from these outfall(s) are identified in either an accompanying Form 2C or Form 2E application for the outfall.

Name of Official Title (type or print)	Signature	Date Signed
AI Turner, Plant Manager		2/24/16

B. provide a description of the method used, the date of any testing, and the onsite drainage points that were directly observed during a test.

During the past three years there has been no dry weather flow observed from the stormwater outfalls. Relatively mild winters have reduced the need for steam freeze bleed protection.

VI. Significant Leaks or Spills

Provide existing information regarding the history of significant leaks or spills of toxic or hazardous pollutants at the facility in the last three years, including the approximate date and location of the spill or leak, and the type and amount of material released.

During the current NPDES permit period there has not been a significant leak or spill of any toxic or hazardous pollutant at this facility.

VII. Discharge Information

B, C, & D: See instruction before proceeding. Complete one set of tables for each outfall. Annotate the outfall number in the space provided. Tables VII-A, VII-B, and VII-C are included on separate sheets numbered VII-1 and VII-2.

E. Potential discharges not covered by analysis - is any toxic pollutant listed in table 2F-2, 2F-3, or 2F-4, a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

Yes (list all such pollutants below)

No (go to Section IX)

VIII. Biological Toxicity Testing Data

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

Yes (list all such pollutants below)

No (go to Section IX)

Outfall: DSN001

Species: Inland Silverside and Mysid Shrimp

Test Duration: 48-hours

IWC or % Effluent: 1%

Permitted Mortality Rate: <10%

Test Frequency: Semi-annually

IX. Contact analysis Information

Were any of the analysis reported in item VII performed by a contact laboratory or consulting firm?

Yes (list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)

No (go to Section X)

A. Name	B. Address	C. Area Code & Phone No.	D. Pollutants Analyzed
Environmental Enterprises USA, Inc.	58485 Pearl Acres Road Slidell, LA 70461	(800) 966-2788	48-Hour Acute Biomonitoring
TestAmerica Laboratories, Inc. (TestAmerica Mobile)	900 Lakeside Drive Mobile AL 36693	(251) 666-6633	Performed analysis for each required chemical listed in Section V.

X. 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 fine and imprisonment for knowing violations.

A. Name & Official Title (type or print)

AI Turner, Plant Manager

B. Area Code and Phone No.

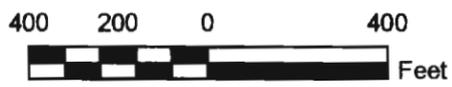
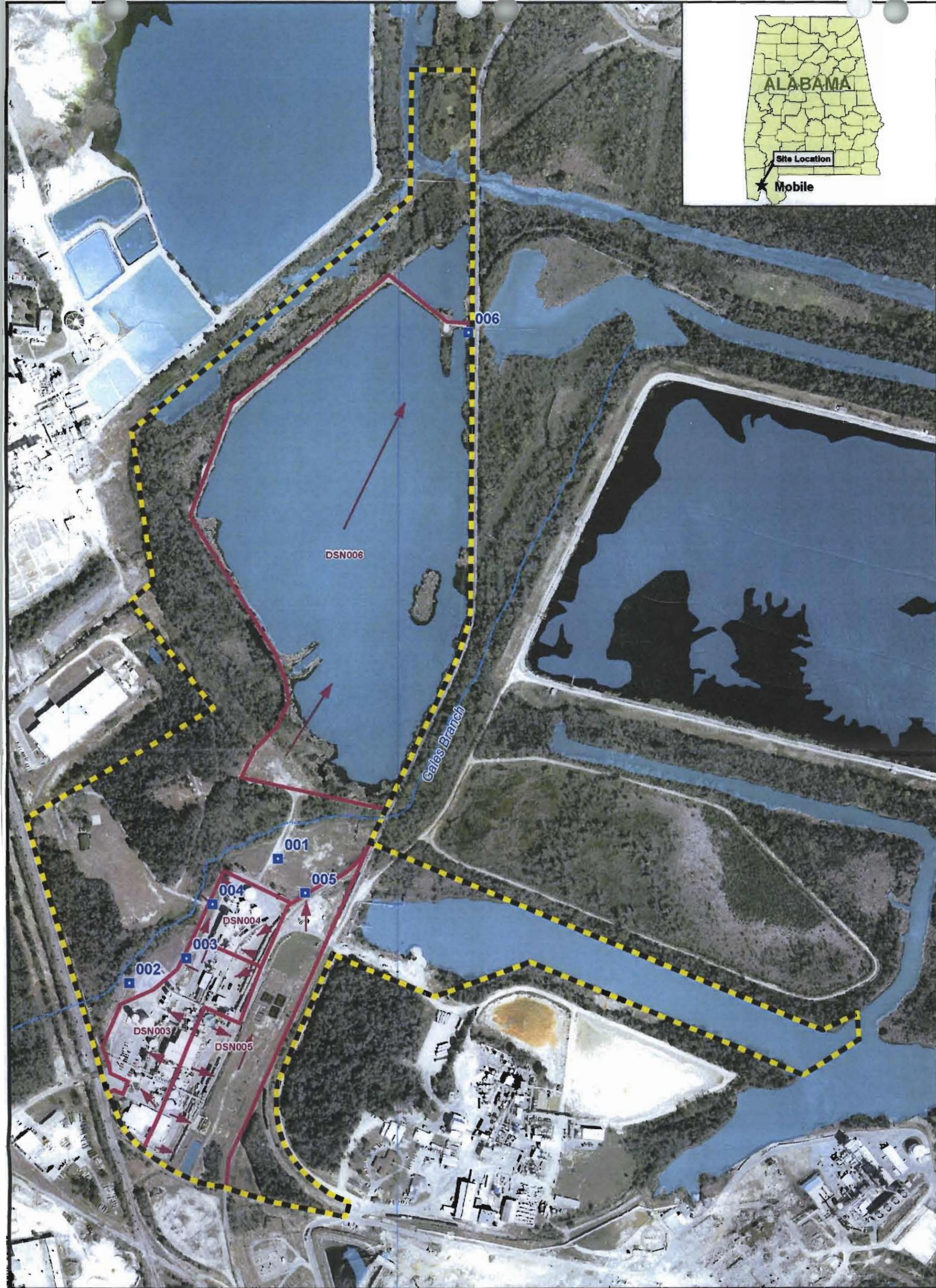
(251) 452-7661

C. Signature



D. Date Signed

2/24/16



1 inch equals 400 feet

Legend

-  Outfall Location
-  Flow Direction Indicator
-  Gales Branch
-  Oxychem Site Outline (Approximate)
-  Stormwater Drainage Basin

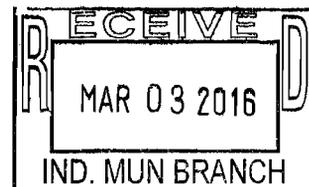
Figure 3
Site Drainage Map
 Occidental Chemical Corp.
 Mobile Plant
 1300 Jarvis Road
 Mobile, AL 36614



Basic Chemicals Group - Mobile, AL Plant

February 24, 2016

Ms. Latoya Hall
Alabama Department of Environmental Management
Industrial Section/Water Division
P.O. Box 301463
Montgomery, AL 36130-1463



Subject: Occidental Chemical Corporation, Mobile, Alabama
NPDES Application for Permit Renewal—AL0003514
Notice of Request to change to Minor Discharger

Dear Ms. Hall:

Enclosed are two copies of an application package for renewal of the National Pollutant Discharge Elimination System (NPDES) permit for the Mobile, Alabama facility of Occidental Chemical Corporation (OxyChem). OxyChem is currently permitted to discharge wastewater via two outfalls (DSN001 and DSN002) and stormwater via four outfalls (DSN003, DSN004, DSN005 and DSN006). DSN001 and DSN006 discharge to Chickasaw Creek via the Industrial Canal and DSN002, DSN003, DSN004, and DSN005 discharges to Gales Branch. The existing permit expires on August 31, 2016.

This application package for renewal includes the required Discharge Information Zone (DIZ) study. It also includes the required forms for non-process wastewater discharge – ADEM Form 187 and EPA Forms 1, 2E, and 2F. The DIZ study is being submitted as a separate document (2 copies) to facilitate ADEM review. As part of this application for permit renewal, OxyChem requests the Alabama Department of Environmental Management's (ADEM's) consideration of the following changes to the existing NPDES permit:

- Removal of DSN006 stormwater outfall;
- Modify DSN001 sampling parameters to pH and Mercury only, to be performed on a monthly basis;
- Modify DSN002 sampling parameters to pH and Temperature only, to be performed on a quarterly basis;
- Reduce sampling frequency of stormwater outfalls DSN003, DSN004, and DSN005 to an annual basis.

These requested changes are further documented in this application package.



The Mobile facility chlor-alkali operation continues to remain in an indefinitely idled state. Due to this status, OxyChem has sampled DSN001, DSN002, and DSN004 and reported these values as required by EPA Form 2E and Form 2F. The DIZ Study is being submitted based on previous application data due to this idled state. The on-site sodium silicate production unit is expected to continue operation for the foreseeable future. DSN004 has been sampled as a representative sample for the stormwater outfalls.

Finally, we have had discussions with your staff regarding reevaluation our major/minor classification status. Based on our current state, we have reason to believe that we may be more appropriately classified as a minor discharger. In that regard, we request that you evaluate this status prior to processing of our application, as that determination will affect a number of the limitations and requirements of our permit.

We will be submitting the permit application fee separate from this application. The permit fee will be submitted as a minor discharger.

If you have any questions or need additional information as you review and process OxyChem's permit renewal, please contact me at (251) 452-7661.

Sincerely,



Al Turner
Plant Manager



1. Introduction

Occidental Chemical Corporation (OxyChem) located in Mobile, Alabama, is herein submitting to the Alabama Department of Environmental Management (ADEM) an application for renewal of its current National Pollutant Discharge Elimination System (NPDES) Permit number AL0003514 that became effective on October 1, 2011, and expires on August 31, 2016. OxyChem currently has six permitted outfalls—four are stormwater-only outfalls and two are process water outfalls; one of these two also is an internal monitoring outfall for the application of U.S. Environmental Protection Agency (EPA) effluent guideline technology-based limits.

The NPDES application for permit renewal is being submitted to ADEM to provide the information needed so that end-of-pipe water quality based effluent limitations (WQBELs) can be applied as needed. OxyChem wishes to be considered for minor industrial discharge status. The specific information presented in this application includes completed EPA Forms 1, 2E, 2F and ADEM Form 187. Additionally, a discharge information zone (DIZ) study is being submitted as a separate document.

1.1 Site Description

OxyChem operates a chemical manufacturing plant in Mobile, Alabama, in Mobile County, and employs approximately 15 people. The facility is located north of the City of Mobile and operates 365 days per year on an approximate 275-acre site.

The OxyChem Mobile plant consists of a sodium silicate production unit and is also a terminal for various grades of sodium hydroxide that are barged in from other OxyChem facilities. There is also a chlor-alkali process located at the plant site that has been idled since 2009 due to market conditions. The sodium silicate process uses sand and soda ash that are mixed and processed in a furnace to produce sodium silicate. Several grades of liquid sodium silicate are produced.

The OxyChem facility is not subject to EPA Effluent Limitations Guidelines and Standards (ELGs) under 40 *Code of Federal Regulations* (CFR) Part 415 Inorganic Chemicals Manufacturing Point Source Category. This aspect is further discussed in Section 3 of this document.

1.2 NPDES Permit Renewal Application

This application for permit renewal is being submitted to ADEM prior to March 4, 2016, which is, then, greater than 180 days before the permit expiration date. This application includes a description of the facility, process discharges and proposed permit limitations. The outline of this application package is as follows:

- Section 1: Introduction
- Section 2: Outfall Description
- Section 3: Effluent Limitation Guidelines (ELGs)
- Section 4: Derivation of Permit Limitations
- Section 5: Summary of Requested Limits
- Appendix A: ADEM Form 187
- Appendix B: EPA Form 1
- Appendix C: EPA Form 2E
- Appendix D: EPA Form 2F

1.3 Permit Application Form–EPA Form 2E and EPA Form 2F

As noted previously, there has been a delay in the startup of the chlor-alkali unit due to market conditions. Because of the idled status of the chlor-alkali process, OxyChem has submitted EPA Form E for Outfalls DSN001 and DSN002 and EPA Form F for DSN003, DSN004, DSN005, and DSN006. DSN004 was sampled as a representative stormwater outfall due to the chlor-alkali idled plant status. The data submitted on EPA Form 2E data tables for DSN001 and DSN002 were based on the following:

- DMR data was used if a parameter currently is monitored at the outfall.
- Data was submitted via Form E due to the current idled chlor-alkali process and no reasonably foreseeable plans to restart the idled chlor-alkali facility.

2. Outfall Description

This section briefly describes the wastewater sources for the NPDES permitted outfalls.

2.1 Current NPDES Permitted Outfalls

OxyChem currently monitors two NPDES-permitted outfalls–DSN001 and DSN002. DSN001 discharges to Chickasaw Creek via the Industrial Canal from OxyChem’s Wastewater Treatment Plant (WWTP). OxyChem currently discharges treated wastewater through DSN001 from the following sources:

- Stormwater runoff from idled chlor-alkali areas
- Washwaters from terminal operations
- Treated groundwater

OxyChem discharges wastewater through DSN002 from the following sources:

- Non-contact cooling water
- Car wash wastewaters
- Water softener and boiler blowdown
- Steam condensate
- Storage pad stormwater runoff

3. Effluent Limitation Guidelines

This section briefly describes the applicability of the Inorganic Chemicals Manufacturing Point Source Category ELGs for OxyChem's production processes.

3.1 Effluent Limitations Guidelines Applicability

The onsite sodium silicate facility is considered inorganic chemical manufacturing, but a review of 40 CFR 415 indicates that EPA has not yet developed ELGs for sodium silicate production. Thus, the OxyChem Mobile plant is not subject to any current EPA technology-based ELGs.

The chlor-alkali process remains idled, and has been idled for the entire length of the previous NPDES permit.

4. Derivation of Permit Limitations

As discussed in Section 3, the EPA Inorganic Chemicals ELGs do not apply to OxyChem. DSN001 discharges to Chickasaw Creek, which is tidally influenced and is classified as a Limited Warmwater Fishery (LWF).

4.1 Proposed Effluent Limits–DSN001

This subsection provides the basis for the proposed permit limitations using OxyChem's long-term average flow rate of 0.004 million gallons per day (mgd).

4.1.1 Nickel, Copper, and Mercury

Total recoverable nickel, copper, and mercury currently are limited by OxyChem's NPDES permit. It is requested that Total recoverable nickel and copper be removed from the permit. Nickel and Copper were added to the permit due to the chlor-alkali operation.

4.1.2 Total Residual Chlorine

It is requested that Total residual chlorine (TRC) be removed from the permit. TRC was added to the permit due to the chlor-alkali operation.

4.1.3 Total Phosphorus, Total Kjeldahl Nitrogen, and Total Nitrates-Nitrites

It is requested that TP, TKN, and total nitrates and nitrites be removed from OxyChem's permit. Total phosphorus, TKN, and total nitrates-nitrites were added to the permit due to the chlor-alkali operation.

4.1.4 Toxicity

Under its existing permit, OxyChem is required to perform whole effluent bioassay testing, specifically 48-hour acute toxicity testing on effluent diluted to an in-stream waste concentration (IWC) of 1 percent effluent on a semiannual basis. OxyChem is submitting a permit application to be evaluated for minor discharge status. Under ADEM guidance, a minor discharger that does not exhibit reasonable potential for two or more parameters in significant concentration is not required to perform biomonitoring. On this basis, it is requested that whole effluent bioassay testing be removed from OxyChem's permit.

4.1.5 Other Parameters–pH, COD, TSS, TDS, and Total Chlorides

In addition to the parameters previously addressed for DSN001, it is requested that limits for pH remain in OxyChem's permit at 6 to 9 standard units (s.u.). It also is requested that chemical oxygen demand (COD), total suspended solids (TSS), total dissolved solids (TDS), and total chlorides be removed from OxyChem's permit for DSN001. In addition, the receiving stream is tidally influenced, so TDS and total chlorides would be insignificant, and the stream is not impaired for sediment nor for dissolved oxygen. Therefore, TSS and COD are not relevant. The parameters were added to the permit due to the chlor-alkali operation.

5.0 Summary of Requested Limits

5.1 DSN001 and DSN002

OxyChem requests that ADEM consider the following changes to the existing NPDES permit (DSN001):

- Modify sample frequency of pH and Mercury to monthly at DSN001
- Remove weekly monitoring of TSS and TRC at DSN001
- Remove quarterly monitoring (TP, TKN, Total Nitrates+Nitrites, Total Copper, and Total Nickel) at DSN001
- Remove semi-annual monitoring (Toxicity, Chloride, TDS, and COD) at DSN001

The requested changes at DSN001, if accepted, would be in OxyChem's permit as follows:

TABLE 5-1
Requested Permit Limits--DSN001
Application for NPDES Permit Renewal, OxyChem

Parameter	Units	DSN001 Requested Permit Limits		Sample Type	Frequency
		Max	Avg		
pH	s.u.	6 to 9		Grab	1/month
Mercury	lbs/day	0.2866	0.0062	Composite	1/month

Notes: s.u. = standard units

OxyChem requests that ADEM consider the following changes to the existing NPDES permit (DSN002):

- Modify sample frequency of pH and Temp to quarterly at DSN002
- Remove monthly monitoring (TSS) at DSN002
- Remove quarterly monitoring (Oil and Grease) at DSN002
- Remove semi-annual monitoring (TRC and TDS) at DSN002

TABLE 5-1A
Requested Permit Limits--DSN002
Application for NPDES Permit Renewal, OxyChem

Parameter	Units	DSN002 Requested Permit Limits		Sample Type	Frequency
		Max	Avg		
pH	s.u.	6 to 8.5		Grab	1/quarter
Temperature	deg F	90		Grab	1/quarter

Notes: s.u. = standard units

5.2 Outfalls DSN003, DSN004, DSN005 and DSN006

OxyChem requests that ADEM consider the following changes to the existing NPDES permit:

- It is requested that ADEM remove DSN006 from the permit. DSN006 drains the attenuation pond at the far north of the property. There has been no stormwater flow from this area during the permitting period.
- It is requested that DSN003, DSN004, and DSN005 remain, as they drain the outer boundaries of the plant, and DSN004 drains the only active area, the Silicate Plant. OxyChem requests that the DSN003, DSN004, and DSN005 sampling frequency be reduced to annually from semi-annually.

TABLE 5-2

Requested Permit Limits–DSN003, DSN004, DSN005
Application for NPDES Permit Renewal, OxyChem

Parameter	Units	DSN003, DSN004, DSN005 Requested Permit Limits		Sample Type	Frequency
		Max	Avg		
pH	s.u.		Report	Grab	1/annual
TSS	mg/l		Report	Grab	1/annual
Mercury	mg/l		Report	Grab	1/annual
Oil and Grease	mg/l	15		Grab	1/annual
Chloride	mg/l		Report	Grab	1/annual
TDS	mg/l		Report	Grab	1/annual

Notes: s.u. = standard units

August 1, 2016
ADEM
Montgomery, AL

RE: Response to questions on groundwater extraction
NPDES Renewal Application Permit No. ALD008163388

Dear MS Hall:

Occidental Chemical Corporation, Inc. (OxyChem) is pleased to submit a response to your inquiry regarding the groundwater extraction system at our Mobile, Alabama facility. The system has been in operation since 1989 and the groundwater extracted has historically been treated in our facility's waste water treatment plant and discharged through our permitted outfall. Recently, OxyChem performed a Human Health Risk Assessment (HHRA) and submitted the results to ADEM. Based on the results of the HHRA, OxyChem petitioned ADEM to approve termination of the groundwater extraction system at the Former Brine Sludge Lagoon (FBSL). The Land Division agreed to the termination which required a modification in our existing permit (Permit No.: ALD 008 163 388). Therefore, OxyChem revised the Corrective Measures Implementation Work Plan (CMI WP) to include our proposal to terminate pumping with the condition that samples would be collected from key wells around the FBSL for three consecutive months and semiannually thereafter. The samples will be analyzed for mercury. If rebound of mercury is observed, then the system will be restarted and the groundwater will be conveyed to the WWTP on site and discharged through the permitted outfall as in the past.

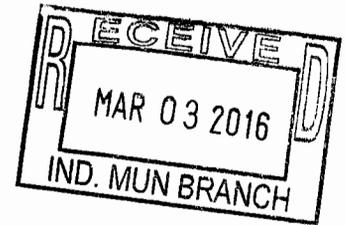
Excerpts from the approved Permit modification and CMI WP are attached for your information. The CMI WP provides a summary of declining mercury concentrations and the rationale for terminating the recovery system at the FBSL as well as the sampling requirements. The baseline sampling event for the termination plan was performed on July 15, 2016 and the system was shut down the same date. To be clear, although we anticipate that the groundwater extraction system will not be re-started in the future, we will need to include that possibility in the re-issuance of our NPDES Permit.

If you have any further questions or concerns, Please feel free to contact me at 251-452-7623.

David Flint

February 24, 2016

Ms. Latoya Hall
Alabama Department of Environmental Management
Industrial Section/Water Division
P.O. Box 301463
Montgomery, AL 36130-1463



Subject: Occidental Chemical Corporation, Mobile, Alabama
NPDES Application for Permit Renewal—AL0003514
DIZ Study

Dear Ms. Hall:

Enclosed are two copies of the required DIZ Study as a part of the application package for renewal of the National Pollutant Discharge Elimination System (NPDES) permit for the Mobile, Alabama facility of Occidental Chemical Corporation (OxyChem). The existing permit expires on August 31, 2016.

The DIZ Study is being submitted based on previous application data due to the continued idled state of the chlor-alkali operations. The chlor-alkali operation has been idled for the entirety of the last NPDES permit. The on-site sodium silicate production unit is expected to continue operation for the foreseeable future.

If you have any questions or need additional information as you review and process OxyChem's permit renewal, please contact me at (251) 452-7661.

Sincerely,

A handwritten signature in black ink, appearing to read "Al Turner".

Al Turner
Plant Manager





CH2MHILL

CH2M HILL
4121 Carmichael Road
Suite 400
Montgomery, AL 36106
Tel (334) 271-1444
Fax (334) 277-5763

March 8, 2011

Ed Hughes
Industrial Section
Water Division
Alabama Department of Environmental Management
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2400

Subject: NPDES Permitting on Chickasaw Creek, Mobile, Alabama
Shell Chemical LLP, Permit Number AL0055859
Occidental Chemical Corporation, Permit Number AL0003514

Dear Mr. Hughes:

As a follow-up to the letter submitted to the Alabama Department of Environmental Management (ADEM) on February 18, 2011, on behalf of our clients, Shell Chemical LP (Shell) and Occidental Chemical Corporation (OxyChem), we would like to formally submit a summary of the salinity and benthic infaunal organism data that is found in the Discharge Information Zone (DIZ) studies for Shell and OxyChem. This data was reviewed in support of a determination of the appropriate water quality criteria for OxyChem and Shell.

Background

The Discharge Information Zone (DIZ) study is a requirement in the above referenced permits to measure basic physiochemical parameters of the water column, collect sediment samples for textural characterization and chemical analyses, and to collect, identify, and enumerate benthic infaunal organisms. The following is a list of DIZ studies and associated companies that were obtainable and were used in this salinity and benthic faunal organism summary:

- October 1996 (OxyChem)
- December 2001 (OxyChem)
- November 2002 (Shell)
- November 2006 (OxyChem)
- September 2008 (OxyChem)
- May 2009 (Shell)

We believe that this data is both sufficient and representative of the stream segments in question.

Even though these DIZ studies were submitted separately to ADEM, the data contained within the studies is being used collectively. There is a total of 10 sampling locations for which the data was compiled (4 for Shell and 6 for OxyChem). Table 1 includes a sampling location description, DIZ Station ID, and, for purposes of this letter and salinity summary, a New Station ID. The stations were renumbered for the salinity summary from upstream to downstream so the data could be charted for visual purposes. The topographic map (Figure 1) shows approximate sampling location with the new station ID.

TABLE 1
Sampling Station Descriptions

New Station ID	DIZ Station ID	Description
2	1	Shell - approx 400 ft u/s of outfall and 1/3 the creek width from east bank
3	2	Shell - approx 400 ft d/s of outfall and 1/3 the creek width from east bank
4	3	Shell - approx 800 ft d/s of outfall and 1/3 the creek width from east bank
1	4	Shell - reference station - approx 300 ft u/s of Hwy 43 bridge on west bank of creek
5	1	Oxy/UOP - reference station - 8500 ft north of discharge
7	2	Oxy/UOP - 400 ft north of discharge
8	3	Oxy/UOP - at discharge
9	4	Oxy/UOP - 400 ft south of discharge
10	5	Oxy/UOP - 1500 ft south of discharge
6	6	Oxy/UOP - 1500 ft north of discharge

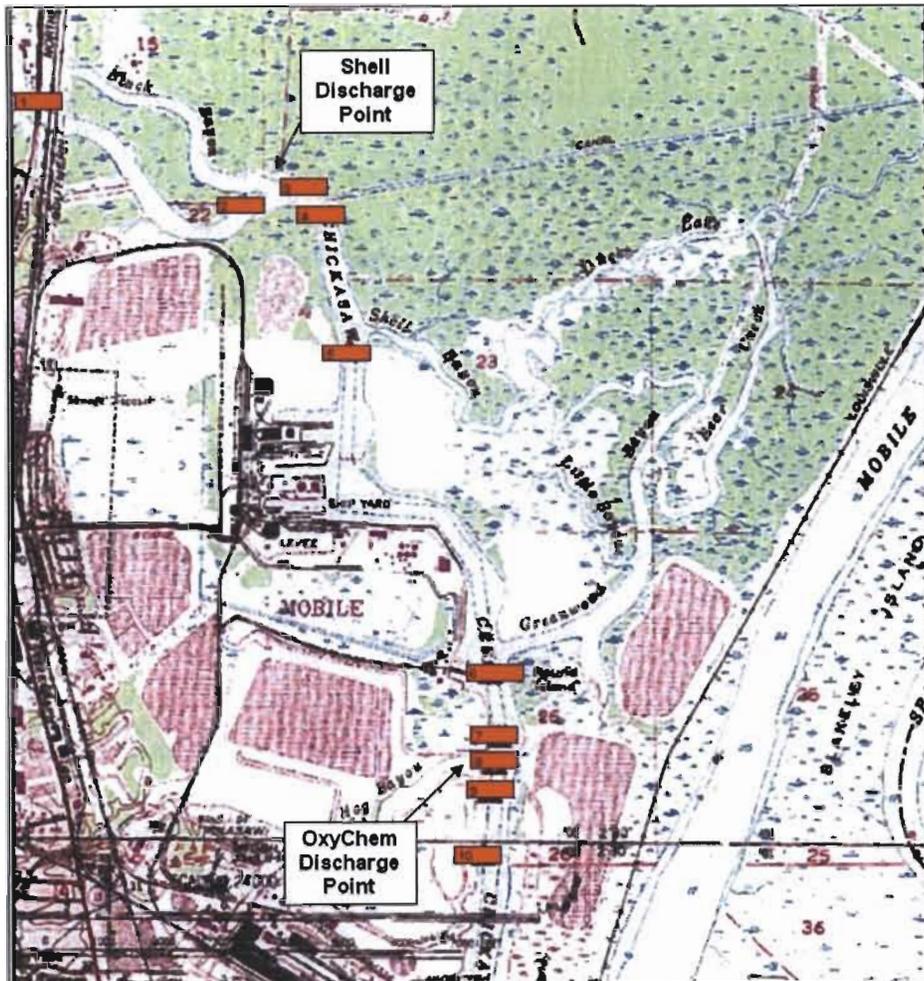


FIGURE 1—DIZ MONITORING LOCATIONS

Salinity Data Review

Salinity data was collected for the DIZ studies at all stations at the surface, mid-depth, and bottom and for some studies at 5 feet (or 1.5 meters). Salinity data associated with these stations is included in Attachment 1. Figure 2 shows a summary of salinity data for the 10 stations. Figure 3 shows the lower range of the salinity results (less than 1.0 ppt) that is not easily visible on Figure 2.

Typically, salinities between 0 to 0.5 ppt (parts per thousand) are considered freshwater, 0.5 to 18 ppt is considered estuarine, and salinities greater than 18 ppt are considered marine. From review of the salinity chart and the data presented in Attachment 1, it is apparent that the water for stations 1 to 4 is more freshwater and the water for stations 5 to 10 is more estuarine/marine.

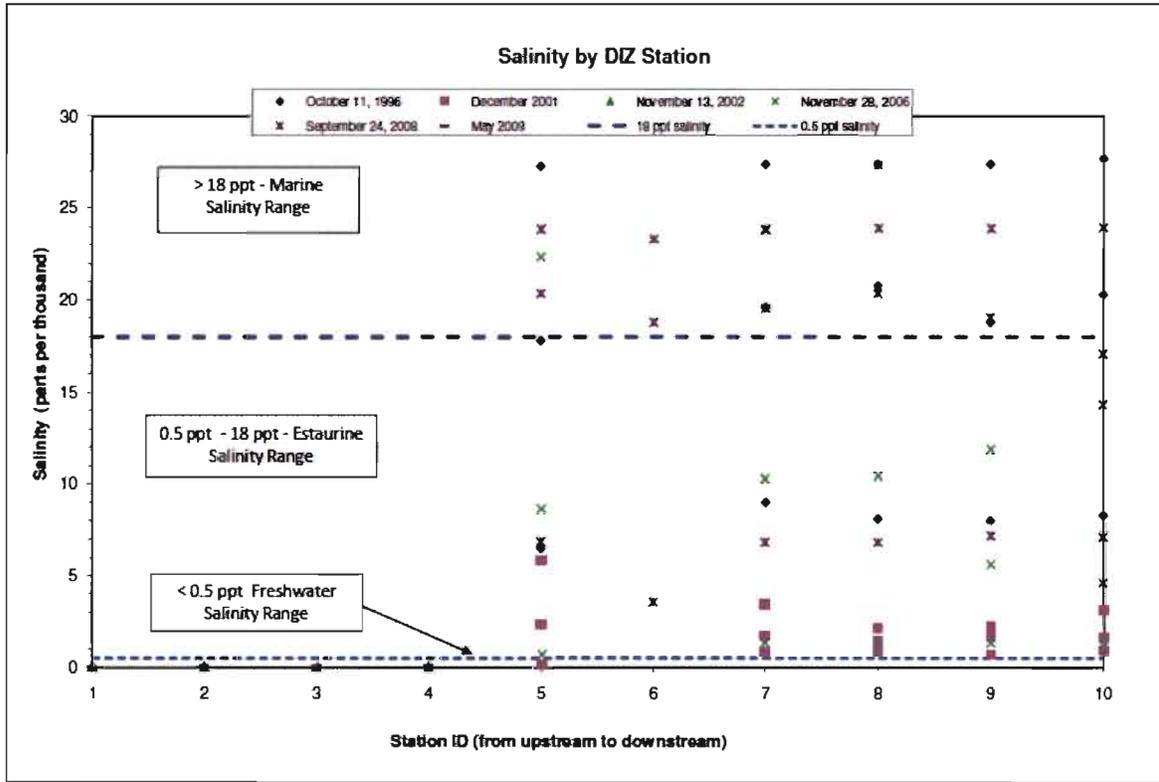


FIGURE 2—DIZ SALINITY DATA

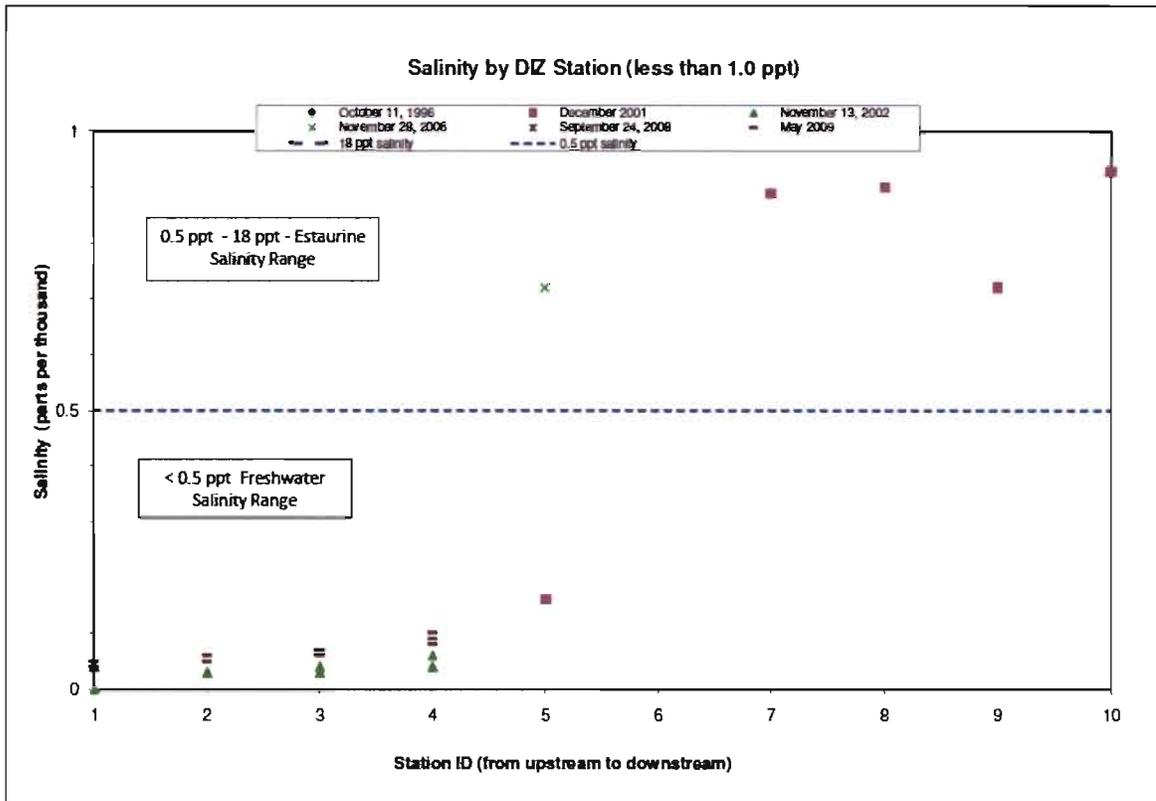


FIGURE 3—DIZ SALINITY DATA (LESS THAN 1.0 PPT)

Benthic Invertebrate Data Review

In addition to summarizing the salinity data, the benthic infaunal organisms were also summarized. These data are not summarized by station; rather, they are summarized collectively for all stations for all DIZ studies. Attachment 2 shows all the organisms found in the DIZ studies; the environment in which the specific organism is predominantly found (i.e., freshwater, estuarine, marine) is also shown via color coding. Even though there are a few freshwater species found, the dominant species found is a species of polychaetes which are common in a saltier environment.

Station 5 (OxyChem Station 1, 8,500 feet north of the discharge) was the furthest downstream station where freshwater organisms were found. No freshwater organisms were found at stations 6 through 10.

Conclusions

The salinity data clearly shows that there is a transition from freshwater to estuarine/marine environment near station 5. Stations 1 to 4 had all freshwater salinities, station 5 had one freshwater salinity with all others being estuarine/marine, and stations 6 to 10 had all estuarine/marine salinities. These conclusions were further supported by the benthic data. Based on the review of the salinity data and the benthic infaunal organism data found in Shell and OxyChem DIZs, we believe that Chickasaw Creek is primarily freshwater in the vicinity of Shell, and becomes predominantly saltwater between Shell and OxyChem.

As previously noted to ADEM, we believe that the appropriate regulatory basis for application of ADEM's Water Quality Criteria is that Chickasaw Creek should be considered as a marine environment from Highway 43 downstream. However, based on the review of the data herein, we believe that a protective and appropriate approach for the application of ADEM's water quality criteria is that the waters between the Highway 43 Bridge downstream to OxyChem should be considered freshwater and that Chickasaw Creek from OxyChem downstream should be considered marine.

Based on this conclusion and approach, we have calculated allowable mercury limitations for Oxy and Shell to use in the reissued NPDES permits:

Flow Rates used in Allocation Calculation (mgd):			
	Shell	0.33	
	Oxy	0.07	
Permittee	Acute (Daily Max)	Chronic (Monthly Average)	Human Health
Shell Allowable, ppd	0.2977	0.0056	0.0112
Oxy Allowable, ppd	0.2977	0.0081	0.0075
<p>1) Total Acute allocation is based on freshwater criteria and combined discharge flow of 0.4 mgd. Allocation is split 50/50 between dischargers.</p> <p>2) Shell chronic and HHC are based on freshwater criteria and Shell flow only</p> <p>3) OxyChem chronic and HHC are based on marine criteria and with Oxy flow and upstream contribution from Shell.</p> <p><i>Bold italic</i> indicate proposed limitations Acute=Daily Max Limit Most Stringent of Chronic and Human Health=Daily Avg Limit</p>			

Page 7
Mr. Hughes
March 8, 2011

Path Forward

Based on these data and conclusions, and on the regulatory conclusions previously discussed with ADEM, we request that ADEM consider implementing the water quality criteria for OxyChem and Shell, as outlined above. We request that ADEM provide feedback on this approach, and on the OxyChem and Shell mercury limitations noted above, so that Oxy and Shell can continue evaluations of compliance alternatives and schedules under the reissued NPDES permits

You can reach me at 334-215-9036 if you have any questions regarding this matter.

Sincerely,

CH2M HILL



J.P. Martin, P.E.

Vice President

Enclosures: Attachment 1 - DIZ Salinity Data
Attachment 2 - Benthic Organism Summary

Cc: Glenda Dean/ADEM
Daphne Smart/ADEM
Eric Sanderson/ADEM
Lynn Sisk/ADEM
Donald Brown/ADEM
Porter Leftwich/Shell
Robert Pinckard/Shell
John Eskew/OxyChem
Ryan Chitwood/OxyChem
Kelly Moody/CH2M HILL
Nancy Brashears/CH2M HILL

Attachment 1
Salinity Values by Station

Station 1		
DIZ Study	Depth (m)	Salinity (ppt)
Nov-02	0	0.04
Nov-02	0.9	*
Nov-02	1.524	0.04
Nov-02	1.8	0.04
May-09	0.1524	0.04
May-09	1.524	0.05
May-09	2.86512	0.05

Station 2		
DIZ Study	Depth (m)	Salinity (ppt)
Nov-02	0	0.03
Nov-02	1.7	0.03
Nov-02	1.524	0.03
Nov-02	3.4	0.03
May-09	0.12192	0.06
May-09	1.524	0.06
May-09	2.62128	0.06
May-09	5.24256	0.05

Station 3		
DIZ Study	Depth (m)	Salinity (ppt)
Nov-02	0	0.04
Nov-02	2.97	0.03
Nov-02	1.524	0.03
Nov-02	5.94	0.04
May-09	0.152	0.07
May-09	1.524	0.07
May-09	3.048	0.06
May-09	6.157	0.06

Station 4		
DIZ Study	Depth (m)	Salinity (ppt)
Nov-02	0	0.04
Nov-02	2.3	0.04
Nov-02	1.524	0.04
Nov-02	4.6	0.06
May-09	0.152	0.09
May-09	1.524	0.08
May-09	2.774	0.08
May-09	5.395	0.1

Station 5		
DIZ Study	Depth (m)	Salinity (ppt)
Oct-96	0	6.5
Oct-96	4.05	17.8
Oct-96	8.1	27.3
Dec-01	0.3	0.16
Dec-01	3.2	2.32
Dec-01	6.3	5.8
Nov-06	0.2	0.72
Nov-06	3	8.59
Nov-06	6.1	22.33
Sep-08	0.509	6.85
Sep-08	13.934	20.34
Sep-08	26.793	23.83

Station 6		
DIZ Study	Depth (m)	Salinity (ppt)
Sep-08	0.461	3.56
Sep-08	12.05	18.77
Sep-08	23.409	23.29

Station 7		
DIZ Study	Depth (m)	Salinity (ppt)
Oct-96	0	9
Oct-96	4.5	19.6
Oct-96	9	27.4
Dec-01	0.3	0.89
Dec-01	2.9	1.71
Dec-01	6.1	3.42
Nov-06	0.2	1.36
Nov-06	3.4	10.29
Nov-06	6.7	23.79
Sep-08	0.424	6.77
Sep-08	12.501	19.55
Sep-08	26.678	23.85

Station 8		
DIZ Study	Depth (m)	Salinity (ppt)
Oct-96	0	8.1
Oct-96	4.35	20.8
Oct-96	8.7	27.4
Dec-01	0.3	0.9
Dec-01	1.8	1.45
Dec-01	4.7	2.15
Nov-06	0.2	1.29
Nov-06	3.1	10.43
Nov-06	6.4	27.36
Sep-08	0.459	6.76
Sep-08	13.04	20.36
Sep-08	26.594	23.88

Station 9		
DIZ Study	Depth (m)	Salinity (ppt)
Oct-96	0	8.3
Oct-96	4.35	20.3
Oct-96	8.7	27.7
Dec-01	0.3	0.93
Dec-01	2.2	1.63
Dec-01	5.7	3.11
Nov-06	0.2	1.22
Nov-06	2.5	4.63
Nov-06	4.9	14.33
Sep-08	0.58	7.11
Sep-08	11.105	17.07
Sep-08	22.58	23.93

Station 10		
DIZ Study	Depth (m)	Salinity (ppt)
Sep-08	0.461	3.56
Sep-08	12.05	18.77
Sep-08	23.409	23.29

*mid-depth value not recorded
m = meters
ppt = parts per thousand

Attachment 2
Benthic Organism Summary

Phylum	Class	Family	Species	
Annelida	Oligochaeta	Naididae	<i>Dero</i> (LPIL)	
		Tubificidae	--	
	Polychaeta	Ampharetidae		<i>Amphicteis floridus</i>
				<i>Hobsonia florida</i>
		Amphinomidae	<i>Paramphinome</i> (LPIL)	
		Capitellidae	<i>Mediomastus</i> (LPIL)	
		Cossuridae	<i>Cossura delta</i>	
		Glyceridae	<i>Glycinde solitaria</i>	
		Goniadidae	--	
		Nereidae		<i>Laeonereis culveri</i>
				<i>Nereius succinea</i>
				<i>Stenonereis martini</i>
		Onuphiidae	<i>Diopatra cuprea</i>	
		Pilargidae		<i>Litocorsa antennata</i>
				<i>Parandalia tricuspis</i>
			<i>Sigambra pettiboneae</i>	
	Spionidae		<i>Synelmis acuminata</i>	
			<i>Paraprionospio pinnata</i> <i>Streblospio benedicti</i>	
	Arthropoda	Amphipoda	<i>Amphilochidae</i>	--
			Aoridae	<i>Grandidierella bonnieroides</i>
Corophiidae				<i>Apocorophium lacustre</i>
				<i>Apocorophium louisianum</i>
				<i>Corophium lacustre</i>
Gammaridae		<i>Gammarus</i> (LPIL)		
Crustacea		Mysidae		<i>Americamysis bahia</i>
				<i>Taphromysis louisianae</i>
		Idoteidae	<i>Edotea triloba</i>	
Ogyrididae		<i>Ogyris alphaerostris</i>		
Decapoda		Pinnotheridae	<i>Pinnixa</i> (LPIL)	
		Portunidae	<i>Callinectes similis</i>	
Insecta		Elmidae		<i>Dubiraphia</i> (LPIL)
				<i>Chaoborus</i> (LPIL)
				<i>Chironomus</i> (LPIL)
				<i>Microtendipes</i> (LPIL)
				<i>Polypedilum halterale</i>
				<i>Procladius</i> (LPIL)
				<i>Tanytarsus</i> (LPIL)
		<i>Tribelos jucundum</i>		
Ostracoda		--	--	
Isopoda		<i>Anthuridae</i>	--	
Stomatopoda		<i>Oxyurostylis</i> (LPIL)	--	
Rhynchocoela	--	--		
Sipuncula	--	--		
Mollusca	Bivalvia	Mactridae	<i>Mulinia lateralis</i>	
		Mytilidae	<i>Brachidontes exustus</i>	
		Nuculanidae	<i>Nuculana concentrica</i>	
	Gastropoda	Nassariidae	<i>Nassarius acutus</i>	
		Neritidae	<i>Neritina reclivata</i>	
		Pleuroceridae	--	
Pyramidellidae	<i>Odostomia</i> (LPIL)			
Legend:	PREDOMINANTLY FRESHWATER			
	PREDOMINANTLY ESTUARINE			
	PREDOMINANTLY MARINE			