

LANCE R. LEFLEUR
DIRECTOR



KAY IVEY
GOVERNOR

Alabama Department of Environmental Management
adem.alabama.gov

1400 Coliseum Blvd. 36110-2400 ■ Post Office Box 301463

SEPTEMBER 24, 2020 ^{Montgomery, Alabama 36130-1463}
(334) 271-7700 ■ FAX (334) 271-7950

MR ELDON J. BURR
DIVISION MANAGER
U S AMINES BUCKS LLC
14086 US HIGHWAY 43 NORTH
AXIS AL 36505

RE: DRAFT PERMIT
NPDES PERMIT NUMBER AL0003085

Dear Mr. Burr:

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 Scott Ramsey by e-mail at sramsey@adem.alabama.gov or by phone at (334) 271-7838.

Sincerely,

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: U S AMINES (BUCKS) LLC

FACILITY LOCATION: 14086 US HIGHWAY 43 NORTH
AXIS, AL 36505

PERMIT NUMBER: AL0003085

RECEIVING WATERS: DSN001, DSN003 AND DSN004: UNNAMED TRIBUTARY TO COLD CREEK
DSN002: MOBILE RIVER
DSN006 – DSN009: COLD CREEK

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

INDUSTRIAL SECTION
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT

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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:

DSN001S: Stormwater from non-process areas, former SBS plant, petroleum storage tank containment areas and well water associated with fire protection. 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.	Semi-Annually	Grab	-
Solids, Total Suspended	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Oil & Grease	-	-	-	-	15 mg/l	Semi-Annually	Grab	-
Nitrogen, Kjeldahl Total (As N)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Nitrite Plus Nitrate Total 1 Det. (As N)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Sulfate, Total (As SO4)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Zinc Total Recoverable	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Semi-Annually	Estimate	-

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.

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 (continued): Stormwater from non-process areas, former SBS plant, petroleum storage tank containment areas and well water associated with fire protection. 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>
Solids, Total Dissolved	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Chemical Oxygen Demand (COD)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-

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VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.**

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- 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.

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:

DSN001Y: Stormwater from non-process areas, former SBS plant, petroleum storage tank containment areas and well water from fire pond. 3/

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>
Mercury, Total (As Hg) 5/	-	-	-	-	REPORT ug/l	Annually	Grab	-

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- 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/ Testing for Mercury shall be performed using method 245.7 or 1631 E. Sample shall be collected during a non-storm water 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:

DSN0021: Process wastewater from organic chemical manufacturing, boiler blowdown, RO unit reject water, stormwater from former sodium hydrosulfite and SBS plants, lab wastewater and non-contact cooling water. 3/

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>
BOD, 5-Day (20 Deg. C)	45.6 lbs/day	109 lbs/day	-	-	-	3X Weekly test	Composite	-
pH	-	-	6.0 S.U.	-	9.0 S.U.	Daily	Grab	-
Solids, Total Suspended	60.6 lbs/day	176 lbs/day	-	-	-	3X Weekly test	Composite	-
Nitrogen, Ammonia Total (As N)	-	REPORT lbs/day	-	-	-	Monthly	Composite	April - September
Nitrogen, Kjeldahl Total (As N)	-	REPORT lbs/day	-	-	-	Monthly	Composite	April - September
Nitrite Plus Nitrate Total I Det. (As N)	-	REPORT lbs/day	-	-	-	Monthly	Composite	April - September
Phosphorus, Total (As P)	-	REPORT lbs/day	-	-	-	Monthly	Composite	April - September
Chloride (As Cl)	-	REPORT lbs/day	-	-	-	Monthly	Grab	-

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- 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.

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 (continued): Process wastewater from organic chemical manufacturing, boiler blowdown, RO unit reject water, stormwater from former sodium hydrosulfite and SBS plants, lab wastewater and non-contact cooling water. 3/

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>
Sulfate, Total (As SO ₄)	-	REPORT lbs/day	-	-	-	Monthly	Grab	-
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Continuous	Recorder	-
Solids, Total Dissolved	-	REPORT lbs/day	-	-	-	Monthly	Grab	-
Chemical Oxygen Demand (COD)	REPORT lbs/day	REPORT lbs/day	-	-	-	Monthly	Composite	-

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- 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.

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:

DSN002Y: Process wastewater from organic chemical manufacturing, boiler blowdown, RO unit reject water, stormwater from former sodium hydrosulfite and SBS plants, lab wastewater and non-contact cooling water. 3/

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 2/4/</u>	<u>Sample Type</u>	<u>Seasonal</u>
Cyanide, Total (As CN)	0.040 lbs/day	0.115 lbs/day	-	-	-	Twice per Year	Grab	-
Chromium, Total (As Cr)	0.927 lbs/day	2.312 lbs/day	-	-	-	Twice per Year	Composite	-
Copper, Total (As Cu)	1.211 lbs/day	2.822 lbs/day	-	-	-	Twice per Year	Composite	-
Lead, Total (As Pb)	0.267 lbs/day	0.576 lbs/day	-	-	-	Twice per Year	Composite	-
Nickel, Total (As Ni)	1.411 lbs/day	3.323 lbs/day	-	-	-	Twice per Year	Composite	-
Zinc, Total (As Zn)	0.877 lbs/day	2.179 lbs/day	-	-	-	Twice per Year	Composite	-
Carbon Tetrachloride	0.018 lbs/day	0.038 lbs/day	-	-	-	Twice per Year	Grab	-
1,2-Dichloroethane	0.068 lbs/day	0.211 lbs/day	-	-	-	Twice per Year	Grab	-

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- 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/ The required twice per year samples shall be obtained at least ten (10) days apart within the same calendar month.

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:

DSN002Y (continued): Process wastewater from organic chemical manufacturing, boiler blowdown, RO unit reject water, stormwater from former sodium hydrosulfite and SBS plants, lab wastewater and non-contact cooling water. 3/

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 2/4/</u>	<u>Sample Type</u>	<u>Seasonal</u>
Chloroform	0.021 lbs/day	0.046 lbs/day	-	-	-	Twice per Year	Grab	-
Toluene	0.026 lbs/day	0.080 lbs/day	-	-	-	Twice per Year	Grab	-
Benzene	0.037 lbs/day	0.136 lbs/day	-	-	-	Twice per Year	Grab	-
Acenaphthylene	0.022 lbs/day	0.059 lbs/day	-	-	-	Twice per Year	Composite	-
Acenaphthene	0.022 lbs/day	0.059 lbs/day	-	-	-	Twice per Year	Composite	-
Acrylonitrile	0.096 lbs/day	0.242 lbs/day	-	-	-	Twice per Year	Grab	-
Anthracene	0.022 lbs/day	0.059 lbs/day	-	-	-	Twice per Year	Composite	-
Benzo (K) Fluoranthene	0.022 lbs/day	0.059 lbs/day	-	-	-	Twice per Year	Composite	-

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- 3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.
- 4/ The required twice per year samples shall be obtained at least ten (10) days apart within the same calendar month.

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:

DSN002Y (continued): Process wastewater from organic chemical manufacturing, boiler blowdown, RO unit reject water, stormwater from former sodium hydrosulfite and SBS plants, lab wastewater and non-contact cooling water. 3/

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 2/4/</u>	<u>Sample Type</u>	<u>Seasonal</u>
Benzo (A) Pyrene	0.023 lbs/day	0.061 lbs/day	-	-	-	Twice per Year	Composite	-
Chlorobenzene	0.015 lbs/day	0.028 lbs/day	-	-	-	Twice per Year	Grab	-
Chrysene	0.022 lbs/day	0.059 lbs/day	-	-	-	Twice per Year	Grab	-
Diethyl Phthalate	0.081 lbs/day	0.203 lbs/day	-	-	-	Twice per Year	Grab	-
Dimethyl Phthalate	0.019 lbs/day	0.047 lbs/day	-	-	-	Twice per Year	Grab	-
Ethylbenzene	0.032 lbs/day	0.108 lbs/day	-	-	-	Twice per Year	Grab	-
Fluoranthene	0.025 lbs/day	0.068 lbs/day	-	-	-	Twice per Year	Grab	-
Fluorene	0.02 lbs/day	0.059 lbs/day	-	-	-	Twice per Year	Grab	-

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- 4/ The required twice per year samples shall be obtained at least ten (10) days apart within the same calendar month.

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:

DSN002Y (continued): Process wastewater from organic chemical manufacturing, boiler blowdown, RO unit reject water, stormwater from former sodium hydrosulfite and SBS plants, lab wastewater and non-contact cooling water. 3/

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 2/4/</u>	<u>Sample Type</u>	<u>Seasonal</u>
Hexachlorobutadiene	0.02 lbs/day	0.049 lbs/day	-	-	-	Twice per Year	Composite	-
Hexachloroethane	0.021 lbs/day	0.054 lbs/day	-	-	-	Twice per Year	Composite	-
Methyl Chloride	0.086 lbs/day	0.19 lbs/day	-	-	-	Twice per Year	Grab	-
Methylene Chloride	0.04 lbs/day	0.089 lbs/day	-	-	-	Twice per Year	Grab	-
Nitrobenzene	0.027 lbs/day	0.068 lbs/day	-	-	-	Twice per Year	Composite	-
Phenanthrene	0.022 lbs/day	0.059 lbs/day	-	-	-	Twice per Year	Grab	-
Pyrene	0.025 lbs/day	0.067 lbs/day	-	-	-	Twice per Year	Grab	-
Tetrachloroethylene	0.022 lbs/day	0.056 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/ The required twice per year samples shall be obtained at least ten (10) days apart within the same calendar month.

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:

DSN002Y (continued): Process wastewater from organic chemical manufacturing, boiler blowdown, RO unit reject water, stormwater from former sodium hydrosulfite and SBS plants, lab wastewater and non-contact cooling water. 3/

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 2/4/</u>	<u>Sample Type</u>	<u>Seasonal</u>
1,1-Dichloroethane	0.022 lbs/day	0.059 lbs/day	-	-	-	Twice per Year	Grab	-
1,1-Dichloroethylene	0.016 lbs/day	0.025 lbs/day	-	-	-	Twice per Year	Grab	-
1,1,1-Trichloroethane	0.021 lbs/day	0.054 lbs/day	-	-	-	Twice per Year	Grab	-
1,1,2-Trichloroethane	0.021 lbs/day	0.054 lbs/day	-	-	-	Twice per Year	Grab	-
Benzo (A) Anthracene	0.022 lbs/day	0.059 lbs/day	-	-	-	Twice per Year	Composite	-
1,2-Dichlorobenzene	0.077 lbs/day	0.163 lbs/day	-	-	-	Twice per Year	Grab	-
1,2-Dichloropropane	0.153 lbs/day	0.230 lbs/day	-	-	-	Twice per Year	Grab	-
1,2-Trans-Dichloroethylene	0.021 lbs/day	0.054 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/ The required twice per year samples shall be obtained at least ten (10) days apart within the same calendar month.

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:

DSN002Y (continued): Process wastewater from organic chemical manufacturing, boiler blowdown, RO unit reject water, stormwater from former sodium hydrosulfite and SBS plants, lab wastewater and non-contact cooling water. 3/

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 2/4/</u>	<u>Sample Type</u>	<u>Seasonal</u>
1,2,4-Trichlorobenzene	0.068 lbs/day	0.140 lbs/day	-	-	-	Twice per Year	Composite	-
1,3-Dichlorobenzene	0.031 lbs/day	0.044 lbs/day	-	-	-	Twice per Year	Grab	-
1,4-Dichlorobenzene	0.015 lbs/day	0.028 lbs/day	-	-	-	Twice per Year	Grab	-
2-Chlorophenol	0.031 lbs/day	0.098 lbs/day	-	-	-	Twice per Year	Grab	-
2-Nitrophenol	0.041 lbs/day	0.069 lbs/day	-	-	-	Twice per Year	Composite	-
2,4-Dichlorophenol	0.039 lbs/day	0.112 lbs/day	-	-	-	Twice per Year	Composite	-
2,4-Dimethylphenol	0.018 lbs/day	0.036 lbs/day	-	-	-	Twice per Year	Composite	-
2,4-Dinitrotoluene	0.113 lbs/day	0.285 lbs/day	-	-	-	Twice per Year	Composite	-

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/ The required twice per year samples shall be obtained at least ten (10) days apart within the same calendar month.

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:

DSN002Y (continued): Process wastewater from organic chemical manufacturing, boiler blowdown, RO unit reject water, stormwater from former sodium hydrosulfite and SBS plants, lab wastewater and non-contact cooling water. 3/

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 2/4/</u>	<u>Sample Type</u>	<u>Seasonal</u>
2,4-Dinitrophenol	0.071 lbs/day	0.123 lbs/day	-	-	-	Twice per Year	Composite	-
2,6-Dinitrotoluene	0.255 lbs/day	0.640 lbs/day	-	-	-	Twice per Year	Composite	-
4-Nitrophenol	0.072 lbs/day	0.124 lbs/day	-	-	-	Twice per Year	Composite	-
4,6-Dinitro-O-Cresol	0.078 lbs/day	0.277 lbs/day	-	-	-	Twice per Year	Composite	-
Phenol, Single Compound	0.015 lbs/day	0.026 lbs/day	-	-	-	Twice per Year	Grab	-
Naphthalene	0.022 lbs/day	0.059 lbs/day	-	-	-	Twice per Year	Composite	-
Bis (2-Ethylhexyl) Phthalate	0.103 lbs/day	0.279 lbs/day	-	-	-	Twice per Year	Composite	-
Di-N-Butyl Phthalate	0.027 lbs/day	0.057 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/ The required twice per year samples shall be obtained at least ten (10) days apart within the same calendar month.

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:

DSN002Y (continued): Process wastewater from organic chemical manufacturing, boiler blowdown, RO unit reject water, stormwater from former sodium hydrosulfite and SBS plants, lab wastewater and non-contact cooling water. 3/

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 2/4/</u>	<u>Sample Type</u>	<u>Seasonal</u>
Vinyl Chloride	0.104 lbs/day	0.268 lbs/day	-	-	-	Twice per Year	Grab	-
Trichloroethylene	0.021 lbs/day	0.054 lbs/day	-	-	-	Twice per Year	Grab	-
Hexachlorobenzene	0.015 lbs/day	0.028 lbs/day	-	-	-	Twice per Year	Composite	-
1,3 Dichloropropene	0.029 lbs/day	0.044 lbs/day	-	-	-	Twice per Year	Grab	-
3,4 Benzofluoranthene	0.023 lbs/day	0.061 lbs/day	-	-	-	Twice per Year	Composite	-
Chloroethane	0.104 lbs/day	0.268 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/ The required twice per year samples shall be obtained at least ten (10) days apart within the same calendar month.

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:

DSN002T: Process wastewater from organic chemical manufacturing, boiler blowdown, RO unit reject water, stormwater from former sodium hydrosulfite and SBS plants, lab wastewater and non-contact cooling water. 3/

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>
Toxicity, Ceriodaphnia Acute	-	0 pass(0)/fail(1)	-	-	-	Semi-Annually	Grab	-
Toxicity, Pimephales Acute	-	0 pass(0)/fail(1)	-	-	-	Semi-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.C for Effluent Toxicity Limitations and Biomonitoring 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:

DSN003S: Stormwater from contractor staging area and warehouse. 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.	Semi-Annually	Grab	-
Solids, Total Suspended	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Oil & Grease	-	-	-	-	15 mg/l	Semi-Annually	Grab	-
Nitrogen, Kjeldahl Total (As N)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Nitrite Plus Nitrate Total 1 Det. (As N)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Sulfate, Total (As SO ₄)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Zinc Total Recoverable	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Semi-Annually	Estimate	-

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.

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:

DSN003S (continued): Stormwater from contractor staging area and warehouse. 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>
Solids, Total Dissolved	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Chemical Oxygen Demand (COD)	-	-	-	-	REPORT mg/l	Semi-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.**

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- 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.

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: Stormwater from former SO2 plant and maintenance shop. 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.	Semi-Annually	Grab	-
Solids, Total Suspended	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Oil & Grease	-	-	-	-	15 mg/l	Semi-Annually	Grab	-
Nitrogen, Kjeldahl Total (As N)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Nitrite Plus Nitrate Total 1 Det. (As N)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Sulfate, Total (As SO4)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Zinc Total Recoverable	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Semi-Annually	Estimate	-

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.

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 (continued): Stormwater from former SO2 plant and maintenance shop. 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>
Solids, Total Dissolved	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Chemical Oxygen Demand (COD)	-	-	-	-	REPORT mg/l	Semi-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.

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:

DSN006S: Stormwater from former SO2 plant, Amines and wastewater treatment plant. 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> REPORT S.U.	<u>Monthly Average</u>	<u>Daily Maximum</u> REPORT S.U.	<u>Measurement Frequency 2/</u> Semi-Annually	<u>Sample Type</u> Grab	<u>Seasonal</u> -
pH	-	-	REPORT S.U.	-	REPORT S.U.	Semi-Annually	Grab	-
Solids, Total Suspended	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Oil & Grease	-	-	-	-	15 mg/l	Semi-Annually	Grab	-
Nitrogen, Kjeldahl Total (As N)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Nitrite Plus Nitrate Total 1 Det. (As N)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Sulfate, Total (As SO4)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Zinc Total Recoverable	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Semi-Annually	Estimate	-

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.

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:

DSN006S (continued): Stormwater from former SO2 plant, Amines and wastewater treatment plant. 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>
Solids, Total Dissolved	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Chemical Oxygen Demand (COD)	-	-	-	-	REPORT mg/l	Semi-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.

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:

DSN007S: Stormwater from wastewater treatment area. 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.	Semi-Annually	Grab	-
Solids, Total Suspended	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Oil & Grease	-	-	-	-	15 mg/l	Semi-Annually	Grab	-
Nitrogen, Kjeldahl Total (As N)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Nitrite Plus Nitrate Total 1 Det. (As N)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Sulfate, Total (As SO4)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Zinc Total Recoverable	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Semi-Annually	Estimate	-

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.

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:

DSN007S (continued): Stormwater from wastewater treatment area. 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>
Solids, Total Dissolved	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Chemical Oxygen Demand (COD)	-	-	-	-	REPORT mg/l	Semi-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.

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:

DSN008S: Stormwater from Amines tank farm. 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.	Semi-Annually	Grab	-
Solids, Total Suspended	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Oil & Grease	-	-	-	-	15 mg/l	Semi-Annually	Grab	-
Nitrogen, Kjeldahl Total (As N)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Nitrite Plus Nitrate Total 1 Det. (As N)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Sulfate, Total (As SO4)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Zinc Total Recoverable	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Semi-Annually	Estimate	-

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/ Outfall DSN009 has been deemed the representative sampling point for outfall DSN008. Testing is not required at outfall DSN008.

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:

DSN008S (continued): Stormwater from Amines tank farm. 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>
Solids, Total Dissolved	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Chemical Oxygen Demand (COD)	-	-	-	-	REPORT mg/l	Semi-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/ Outfall DSN009 has been deemed the representative sampling point for outfall DSN008. Testing is not required at outfall DSN008.

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:

DSN009S: Stormwater from Amines tank farm, contractor's yard and former Hydrosulfite plant. 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.	Semi-Annually	Grab	-
Solids, Total Suspended	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Oil & Grease	-	-	-	-	15 mg/l	Semi-Annually	Grab	-
Nitrogen, Kjeldahl Total (As N)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Nitrite Plus Nitrate Total 1 Det. (As N)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Sulfate, Total (As SO ₄)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Zinc Total Recoverable	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Semi-Annually	Estimate	-

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.

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:

DSN009S (continued): Stormwater from Amines tank farm, contractor's yard and former Hydrosulfite plant. 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>
Solids, Total Dissolved	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Chemical Oxygen Demand (COD)	-	-	-	-	REPORT mg/l	Semi-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.

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 335-6-6-.09 or a "duly authorized representative" of such official as defined in ADEM Administrative Code Rule 335-6-6-.09 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.C.1.b above.

2. 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 Noncompliance Notification Form (ADEM Form 421) available on the Department's website (<http://adem.alabama.gov/DeptForms/Form421.pdf>) and 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

1. 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 I. 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

1. 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).
2. 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).
3. Arithmetic Mean - means the summation of the individual values of any set of values divided by the number of individual values.

4. AWPCA - means the Alabama Water Pollution Control Act.
5. BOD - means the five-day measure of the pollutant parameter biochemical oxygen demand.
6. Bypass - means the intentional diversion of waste streams from any portion of a treatment facility.
7. CBOD - means the five-day measure of the pollutant parameter carbonaceous biochemical oxygen demand.
8. 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.
9. Daily maximum - means the highest value of any individual sample result obtained during a day.
10. Daily minimum - means the lowest value of any individual sample result obtained during a day.
11. Day - means any consecutive 24-hour period.
12. Department - means the Alabama Department of Environmental Management.
13. Director - means the Director of the Department.
14. 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).
15. Discharge Monitoring Report (DMR) - means the form approved by the Director to accomplish reporting requirements of an NPDES permit.
16. DO - means dissolved oxygen.
17. 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.
18. EPA - means the United States Environmental Protection Agency.
19. FC - means the pollutant parameter fecal coliform.
20. Flow - means the total volume of discharge in a 24-hour period.
21. FWPCA - means the Federal Water Pollution Control Act.
22. 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).
23. 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.
24. 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.
25. 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.
26. MGD - means million gallons per day.
27. 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.

28. New Discharger – means a person, owning or operating any building, structure, facility or installation:
- from which there is or may be a discharge of pollutants;
 - that did not commence the discharge of pollutants prior to August 13, 1979, and which is not a new source; and
 - which has never received a final effective NPDES permit for dischargers at that site.
29. NH3-N – means the pollutant parameter ammonia, measured as nitrogen.
30. Permit application - means forms and additional information that is required by ADEM Administrative Code Rule 335-6-6-.08 and applicable permit fees.
31. 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).
32. 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.
33. 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".
34. 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.
35. Receiving Stream – means the "waters" receiving a "discharge" from a "point source".
36. 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.
37. 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.
38. 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.
39. TKN – means the pollutant parameter Total Kjeldahl Nitrogen.
40. TON – means the pollutant parameter Total Organic Nitrogen.
41. TRC – means Total Residual Chlorine.
42. TSS – means the pollutant parameter Total Suspended Solids.
43. 24HC – means 24-hour composite sample, including any of the following:
- 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;
 - 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
 - a sample collected over a consecutive 24-hour period using an automatic composite sampler composited proportional to flow.
44. 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.

45. 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.
46. Week - means the period beginning at twelve midnight Saturday and ending at twelve midnight the following Saturday.
47. 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.

I. 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.

C. EFFLUENT TOXICITY LIMITATIONS AND BIOMONITORING REQUIREMENTS

1. The permittee shall perform 48-hour acute toxicity tests on the wastewater discharges required to be tested for acute toxicity by Part I of this permit.
- a. Test Requirements:
 - (1) The sample shall be diluted, using an appropriate control water, to the Instream Waste Concentration (IWC) which is 3.0% effluent. The IWC is the concentration of effluent, after mixing, in the receiving stream during a 1-day, 10-year low flow period.
 - (2) Any test where survival in the effluent concentration is less than 90% and statistically lower than the control indicates acute toxicity and constitutes noncompliance with this permit.
 - b. General Test Requirements:
 - (1) A grab sample shall be obtained for use in above biomonitoring tests. The holding time for each sample shall not exceed 36 hours. The control water shall be a water prepared in the laboratory in accordance with the EPA procedure described in EPA 821-R-02-012 or most current edition or another control water selected by the permittee and approved by the Department.
 - (2) Effluent toxicity tests in which the control survival is less than 90% or in which the other requirements of the EPA Test Procedure are not met shall be unacceptable and the permittee shall rerun the tests as soon as practical within the monitoring period.
 - (3) In the event of an invalid test, upon subsequent completion of a valid test, the results of all tests, valid and invalid, are reported with an explanation of the tests performed and results.
 - c. Reporting Requirements:
 - (1) The permittee shall notify the Department in writing within 48 hours after toxicity has been demonstrated by the scheduled test(s).
 - (2) Biomonitoring test results obtained during each monitoring period shall be summarized and reported using the appropriate Discharge Monitoring Report (DMR) form approved by the Department. In accordance with Section 2. of this part, an effluent toxicity report containing the information in Section 2. shall be included with the DMR. Two copies of the test results must be submitted to the Department no later than 28 days after the month in which the tests were performed.
 - d. Additional Testing Requirements:

- (1) If acute toxicity is indicated (noncompliance with permit limit), the permittee shall perform four additional valid acute toxicity tests in accordance with these procedures to determine the extent and duration of the toxic condition. The toxicity tests shall be performed once per week and shall be performed during the first four calendar weeks following the date on which the permittee became aware of the permit noncompliance and the results of these tests shall be submitted no later than 28 days following the month in which the tests were performed.
- (2) After evaluation of the results of the follow-up tests, the Department will determine if additional action is appropriate and may require additional testing and/or toxicity reduction measures. The permittee may be required to perform a Toxicity Identification Evaluation (TIE) and/or a Toxicity Reduction Evaluation (TRE). The TIE/TRE shall be performed in accordance with the most recent protocols/guidance outlined by EPA (e.g., EPA/600/2-88/062, EPA/600/R-92/080, EPA/600/R-92/081, EPA/833/B-99/022 and/or EPA/600/6-91/005F, etc.).

e. Test Methods:

- (1) The tests shall be performed in accordance with the latest edition of the "EPA Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms" and shall be performed using the fathead minnow (*Pimephales promelas*) and the cladoceran (*Ceriodaphnia dubia*).

2. EFFLUENT TOXICITY TESTING REPORTS

The following information shall be submitted with each discharge monitoring report unless otherwise directed by the Department. The Department may at any time suspend or reinstate this requirement or may increase or decrease the frequency of submittals.

a. Introduction

- (1) Facility Name, location and county
- (2) Permit number
- (3) Toxicity testing requirements of permit
- (4) Name of receiving water body
- (5) Contract laboratory information (if tests are performed under contract)
 - (a) Name of firm
 - (b) Telephone number
 - (c) Address
- (6) Objective of test

b. Plant Operations

- (1) Discharge operating schedule (if other than continuous)
- (2) Volume of discharge during sample collection to include Mean daily discharge on sample collection date (MGD, CFS, GPM)
- (3) Design flow of treatment facility at time of sampling

c. Source of Effluent and Dilution Water

- (1) Effluent samples
 - (a) Sampling point
 - (b) Sample collection dates and times (to include composite sample start and finish times)
 - (c) Sample collection method
 - (d) Physical and chemical data of undiluted effluent samples (water temperature, pH, alkalinity, hardness, specific conductance, total residual chlorine (if applicable), etc.)
 - (e) Sample temperature when received at the laboratory
 - (f) Lapsed time from sample collection to delivery
 - (g) Lapsed time from sample collection to test initiation
- (2) Dilution Water Samples

- (a) Source
 - (b) Collection date(s) and time(s) (where applicable)
 - (c) Pretreatment
 - (d) Physical and chemical characteristics (pH, hardness, water temperature, alkalinity, specific conductance, etc.)
- d. Test Conditions
 - (1) Toxicity test method utilized
 - (2) End point(s) of test
 - (3) Deviations from referenced method, if any, and reason(s)
 - (4) Date and time test started
 - (5) Date and time test terminated
 - (6) Type and volume of test chambers
 - (7) Volume of solution per chamber
 - (8) Number of organisms per test chamber
 - (9) Number of replicate test chambers per treatment
 - (10) Test temperature, pH and dissolved oxygen as recommended by the method (to include ranges)
 - (11) Feeding frequency, and amount and type of food
 - (12) Light intensity (mean)
- e. Test Organisms
 - (1) Scientific name
 - (2) Life stage and age
 - (3) Source
 - (4) Disease treatment (if applicable)
- f. Quality Assurance
 - (1) Reference toxicant utilized and source
 - (2) Date and time of most recent acute reference toxicant test(s), raw data, and current cusum chart(s)
 - (3) Dilution water utilized in reference toxicant test
 - (4) Results of reference toxicant test(s) (LC50, etc.), report concentration-response relationship and evaluate test sensitivity. The most recent reference toxicant test shall be conducted within 30-days of the routine.
 - (5) Physical and chemical methods utilized
- g. Results
 - (1) Provide raw toxicity data in tabular form, including daily records of affected organisms in each concentration (including controls) and replicate
 - (2) Provide table of endpoints: LC50, NOAEC, Pass/Fail (as required in the applicable NPDES permit)
 - (3) Indicate statistical methods used to calculate endpoints
 - (4) Provide all physical and chemical data required by method
 - (5) Results of test(s) (LC50, NOAEC, Pass/Fail, etc.), report concentration-response relationship (definitive test only), report percent minimum significant difference (PMSD)
- h. Conclusions and Recommendations
 - (1) Relationship between test endpoints and permit limits
 - (2) Action to be taken

1/ Adapted from "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms", Fifth Edition, October 2002 (EPA 821-R-02-012), Section 12, Report Preparation

D. COOLING WATER INTAKE STRUCTURE (CWIS) REQUIREMENTS

1. The entity providing water to the permittee is a public water system in accordance with Section 1401 of the Safe Drinking Water Act or the water used for non-contact cooling is provided by a private well; therefore, the permittee is exempt from this permit condition.

ADEM PERMIT RATIONALE

PREPARED DATE: September 1, 2020
PREPARED BY: Ed Hughes

Permittee Name: U S Amines (Bucks) LLC
Facility Name: U S Amines (Bucks) LLC
Permit Number: AL0003085

PERMIT IS REISSUANCE DUE TO EXPIRATION

DISCHARGE SERIAL NUMBERS & DESCRIPTIONS:

DSN001: Stormwater from non-process areas, former SBS plant, petroleum storage tank containment areas and well water associated with fire protection.
DSN002: Process wastewater from organic chemical manufacturing, boiler blowdown, RO unit reject water, stormwater from former sodium hydrosulfite and SBS plants, lab wastewater and non-contact cooling water.
DSN003: Stormwater from contractor staging area and warehouse.
DSN004: Stormwater from former SO2 plant and maintenance shop.
DSN006: Stormwater from former SO2 plant, Amines and wastewater treatment plant.
DSN007: Stormwater from wastewater treatment area.
DSN008: Stormwater from Amines tank farm.
DSN009: Stormwater from Amines tank farm, contractor's yard and former Hydrosulfite plant.

INDUSTRIAL CATEGORY: OCPSF- Subpart G - Bulk Organic Chemicals (40 CFR Part 414.70)

MAJOR: Yes Note: The size of this operation has been greatly reduced. A revised rating sheet was completed and submitted to EPA requesting the downgrade of this site to an industrial minor. As of this time, EPA has not acted on this request; therefore, this draft was developed based on the continuation of the major classification.

STREAM INFORMATION:

Receiving Stream: Mobile River – Process & non-process wastewaters (DSN002)
Classification: F & W
River Basin: Mobile River Basin
7Q10: 2207.5 cfs
1Q10: 1655.7 cfs
Annual Average Flow: 23187.1 cfs
303(d) List: Yes
Impairment: Metals (Mercury)
TMDL: NO

Receiving Stream: U T to Cold Creek– Stormwater only (DSN001,003 & 004)

Classification: F & W

River Basin: Mobile River Basin

7Q10: 0.0 cfs

1Q10: 0.0 cfs

Annual Average Flow: 0.0 cfs

303(d) List: No

Impairment: N/A

TMDL: No

Receiving Stream: Cold Creek – Stormwater only (DSN006 – 009)

Classification: F & W

River Basin: Mobile River Basin

7Q10: 4.88 cfs

1Q10: 3.66 cfs

Annual Average Flow: 37.24 cfs

303(d) List: Yes

Impairment: Metals (Mercury)

TMDL: No

DISCUSSION:

U S Amines located in Bucks, Alabama, produces Aliphatic Amines. Process and non-process wastewaters are discharged through outfall DSN002 to the Mobile River. Stormwater is discharged through outfalls DSN001, 003, 004 and 006 – 009. Outfalls DSN001, 003 and 004 discharge to an unnamed tributary to Cold Creek. Outfalls DSN006 - 009 discharge to Cold Creek. This segment of the Mobile River and Cold Creek are both on the 2018 303(d) list for impaired streams. The pollutant of concern is Mercury. As of this time, a TMDL has not been developed for these streams.

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 new or expanded discharge to a Tier II water body. Therefore, anti-degradation requirements do not apply.

Proposed permit limits are based on EGLs, Best Professional Judgment and levels necessary to prevent backsliding. The proposed frequencies are based on a review of site specific conditions and an evaluation of similar facilities.

008S:

<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.	Semi-Annually	Grab	BPJ
Solids, Total Suspended	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Oil & Grease	-	-	-	-	15 mg/l	Semi-Annually	Grab	BPJ
Nitrogen, Kjeldahl Total (As N)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Nitrite Plus Nitrate Total 1 Det. (As N)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Sulfate, Total (As SO4)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Zinc Total Recoverable	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Semi-Annually	Estimate	BPJ
Solids, Total Dissolved	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Chemical Oxygen Demand (COD)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ

009S:

<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.	Semi-Annually	Grab	BPJ
Solids, Total Suspended	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Oil & Grease	-	-	-	-	15 mg/l	Semi-Annually	Grab	BPJ

Nitrogen, Kjeldahl Total (As N)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Nitrite Plus Nitrate Total 1 Det. (As N)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Sulfate, Total (As SO4)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Zinc Total Recoverable	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Semi-Annually	Estimate	BPJ
Solids, Total Dissolved	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Chemical Oxygen Demand (COD)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ

006S:

<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.	Semi-Annually	Grab	BPJ
Solids, Total Suspended	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Oil & Grease	-	-	-	-	15 mg/l	Semi-Annually	Grab	BPJ
Nitrogen, Kjeldahl Total (As N)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Nitrite Plus Nitrate Total 1 Det. (As N)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Sulfate, Total (As SO4)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Zinc Total Recoverable	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Semi-Annually	Estimate	BPJ

Solids, Total Dissolved	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Chemical Oxygen Demand (COD)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ

007S:

<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.	Semi-Annually	Grab	BPJ
Solids, Total Suspended	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Oil & Grease	-	-	-	-	15 mg/l	Semi-Annually	Grab	BPJ
Nitrogen, Kjeldahl Total (As N)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Nitrite Plus Nitrate Total 1 Det. (As N)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Sulfate, Total (As SO4)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Zinc Total Recoverable	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Semi-Annually	Estimate	BPJ
Solids, Total Dissolved	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Chemical Oxygen Demand (COD)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ

0021:

<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>
BOD, 5-Day (20 Deg. C)	45.6 lbs/day	109 lbs/day	-	-	-	3X Weekly test	Composite	ABS
pH	-	-	6.0 S.U.	-	9.0 S.U.	Daily	Grab	BPJ
Solids, Total Suspended	60.6 lbs/day	176 lbs/day	-	-	-	3X Weekly test	Composite	ABS
Nitrogen, Ammonia Total (As N)	-	REPORT lbs/day	-	-	-	Monthly	Composite	BPJ
Nitrogen, Kjeldahl Total (As N)	-	REPORT lbs/day	-	-	-	Monthly	Composite	BPJ
Nitrite Plus Nitrate Total 1 Det. (As N)	-	REPORT lbs/day	-	-	-	Monthly	Composite	BPJ
Phosphorus, Total (As P)	-	REPORT lbs/day	-	-	-	Monthly	Composite	BPJ
Chloride (As Cl)	-	REPORT lbs/day	-	-	-	Monthly	Grab	BPJ
Sulfate, Total (As SO4)	-	REPORT lbs/day	-	-	-	Monthly	Grab	BPJ
Flow, In Conduit or Thru Treatment Plant	REPORT MGD	REPORT MGD	-	-	-	Continuous	Recorder	BPJ
Solids, Total Dissolved	-	REPORT lbs/day	-	-	-	Monthly	Grab	BPJ
Chemical Oxygen Demand (COD)	REPORT lbs/day	REPORT lbs/day	-	-	-	Monthly	Composite	BPJ

002Y:

<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>
Cyanide, Total (As CN)	0.040 lbs/day	0.115 lbs/day	-	-	-	Twice per Year	Grab	ABS
Chromium, Total (As Cr)	0.927 lbs/day	2.312 lbs/day	-	-	-	Twice per Year	Composite	ABS
Copper, Total (As Cu)	1.211 lbs/day	2.822 lbs/day	-	-	-	Twice per Year	Composite	ABS

DSN002: Process wastewater from organic chemical manufacturing, boiler blowdown, RO unit reject water, stormwater from former sodium hydrosulfite and SBS plants, lab wastewater and non-contact cooling water.

U.S. Amines' process wastewater consists of the following waste streams: Amines Boiler Blowdown, Amines Utility and Washdown Area, Amines Cooling Tower Blowdown, Amines Process Reaction Water, Laboratory wastewater, Amines Tank Farm stormwater, stormwater from former Sodium Bisulfite Plant, stormwater from former Hydro Plant, and Amines Railcar and Truck Loading stormwater. Of these waste streams the following are considered Organic Chemicals, Plastics, and Synthetic Fibers (OCPSF) waste streams; thus, applicable to the EPA Federal Guideline limitations: Amines Boiler Blowdown, Amines Utility and Wash down Area, Amines Tank Farm Stormwater, Amines Railcar/Tank Truck Loading and Amines Process Reaction Water.

Best Professional Judgment (BPJ)

The parameters of concern for this facility are based on the parameters of concern listed in EPA form 2C and from the current permit. These parameters are consistent with similar facilities in the state and have been proven to be reflective of the operations at this facility. Parameters to be monitored, which are not being assigned specific limits are COD, TDS, Total Chlorides and Total Sulfates. The parameters with specific limits are discussed below:

pH

ADEM Administrative Code, Division 6 Regulations, specifically 335-6-10-.09 – Specific Water Quality for Fish & Wildlife classified streams states: "Sewage, industrial waste or other wastes shall not cause the pH to deviate more than one unit from then normal or natural pH, nor be less than 6.0, nor greater than 8.5 standard units." Based on the ratio of high stream flow as compared to wastewater flow, a discharge in this pH range will not adversely impact water quality in the receiving stream; therefore, the existing limits, 6.0 to 9.0 s.u.as required by EGLs, are proposed to be continued.

Federal Effluent Guideline Limitations (EGL)

Discharges from the manufacture of alkyl amines are subject to the OCPSF regulations (40 CFR Part 414). Specifically, the process discharge from U.S. Amines is subject to the Bulk Organic Chemicals Subpart of the regulations (40 CFR Part 414.70). The facility is subject to both the Best Practical Technology (BPT) (subpart G) limitations and the Best Available Technology (BAT) limitations (subpart I). The combined OCPSF process waste stream is approximately 130,400 gallons per day (gpd), as reported in the application. The remaining non-OCPSF regulated waste streams discharged through DSN002 total approximately 64,100 gpd.

Organics

Discharge limits for OCPSF organics were calculated using subpart I guideline factors. These limits are shown above and on the OCPSF calculation sheet attached to this rationale. Guideline based limits were compared to water quality based limits and previous permit limits and the most stringent requirement was used in the permit.

Cyanide

Discharge limits for Cyanide were determined from the production weighted process flow for the propionitrile production. Using the flow rate provided by the application of 0.02263 MGD and the concentration factors provided in the guidelines (Subpart I (40 CFR Part 414.90), mass based limits were calculated. The calculated effluent limitations for cyanide were compared to water quality based limits and limits required by the existing permit and the most stringent of the three requirements being proposed in this permit.

Metals

The flow rate for the metal bearing waste was determined to be 0.1185 MGD based on the permit application. BAT allowances were calculated using the concentration factors provided in the guidelines (Subpart I (40 CFR Part 414.90)). Calculated guideline requirements were compared to water quality based limits and limits required by the existing permit with the most stringent of the three requirements being proposed in this reissuance.

BOD & TSS

Permit limits were calculated for BOD and TSS based on the OCPSF flow and flow from non-process sources. Calculations were performed using daily maximum and monthly average concentration allowances for these parameters of 45 mg/l and 30 mg/l as in the previous permit. The calculated limits were compared to limits in the existing permit with the more stringent of the two being proposed in this reissuance.

Water Quality Based Effluent Limits (WOBEL)

Bio-Monitoring

In view of the potential toxicity of the wastewater from synergistic effects, semiannual 48-hr acute bio-monitoring is continued. Based on 2020 CORMIX2 modeling the in-stream waste concentration (IWC) at the edge of the zone of initial dilution (ZID) is 2.5%. The required IWC for toxicity testing is being continued at 3.0% to be consistent with current Industrial/Municipal Branch permitting procedures.

Nutrients

In accordance with current ADEM Industrial/Municipal permitting practices, the permit will include monthly nutrient monitoring requirements during the growing season from April through September. Monitoring will be required for TKN, Total Ammonia, Total Phosphorus and Nitrate + Nitrates.

303(d) List of Impaired Waters/Total Maximum Daily Load (TMDL)

This segment of the Mobile River is listed on the 303(d) List of Impaired Waters for metals (Mercury). As of this time a TMDL has not been developed for this impairment. To evaluate the concern that this discharge could be contributing to the listed impairment, a reasonable potential calculation was performed using the method detection level of 0.200 ug/l reported by the permittee in the Form C. (The results of the analysis determined that the mercury level in the effluent was below the detection level). Based on these results this discharge does not represent a reasonable potential to adversely impact water quality; therefore, a limit for Mercury was not being included for the process wastewater outfall in this issuance.

DIZ Requirements

Discharge Information Zone (DIZ) monitoring requirements were previously removed due to the reduction in the size of the operation and because the process outfall is in proximity to Arkema Chemical's discharge site. Arkema is already performing DIZ studies in the area that encompasses U S Amines discharge point.

Reasonable Potential

A Reasonable Potential Analysis was performed to determine if the effluent discharge to the receiving stream would have the potential to violate Water Quality. Per the Analysis, it was determined that none of the pollutants scanned showed a Reasonable Potential to exceed their Water Quality Criteria based on the data reported in the application.

DSN001: Stormwater from non-process areas, former SBS plant and petroleum storage tank containment areas and well water associated with fire protection.

The discharge from DSN001 flows through a two pond holding system prior to release to the unnamed Tributary to Cold Creek, which is classified as Fish & Wildlife. Given the length of travel time through this system, it is expected based on BPJ, that pH and Total Residual Chlorine do not present the potential to impact the receiving stream.

The primary pollutants of concern from the manufacturing activities at this facility are: pH, Total Sulfates, Total Recoverable Zinc, Nitrate + Nitrite, and TKN. Semi-annual monitoring for these parameters in addition to the conventional pollutants of Chemical Oxygen Demand, Total Suspended Solids, Total Dissolved Solids, and Oil & Grease is proposed to be continued.

The Oil and Grease limit of 15 mg/l as a daily maximum has been demonstrated through experience by the Department to be achievable using best management practices. No limitations for pH are proposed. Monitoring will be used to evaluate the effect of contact of stormwater runoff with materials stored on-site.

DSN001 discharges to an Unnamed Tributary to Cold Creek. The location of the discharge is within 24-hour travel time to Cold Creek which is listed on the Alabama 303(d) list for metals impairment, specifically Mercury. Based on the nature of the operation, the permittee is not expected to contribute Mercury to either the process or stormwater discharges from the site. However; due to the presence of the fire water pond and the potential for Mercury to be present in the DSN001 discharge due to atmospheric deposition, once per year monitoring for Mercury will be continued in this issuance. If this testing determines that Mercury is present, then data will be available to support a Mercury allocation for the permittee in the upcoming TMDL for Cold Creek.

CWIS Requirements

This facility discharges non-contact cooling water; however, it is exempt from 316(b) requirement because the source of water utilized for cooling is a private well. The facility does not own or operate an intake structure.

DSN003: Stormwater from contractor staging area and warehouse

DSN004: Stormwater from former SO2 plant and maintenance shop

DSN006: Stormwater from former SO2 plant, Amines and wastewater treatment plant

DSN007: Stormwater from wastewater treatment area

DSN008: Stormwater from Amines tank farm

DSN009: Stormwater from Amines tank farm, contractor's yard and former Hydrosulfite plant

The receiving streams are an unnamed tributary to Cold Creek and Cold Creek, both classified as Fish & Wildlife.

The same rationale applies as that discussed for DSN001. Because these outfalls include only stormwater runoff, monitoring for all parameters at a once per six month monitoring frequency shall be sufficient. Sampling is not being required for outfall DSN008 as outfall 009 has been deemed the representative sampling point.

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.

Lead, Total (As Pb)	0.267 lbs/day	0.576 lbs/day	-	-	-	Twice per Year	Composite	ABS
Nickel, Total (As Ni)	1.411 lbs/day	3.323 lbs/day	-	-	-	Twice per Year	Composite	ABS
Zinc, Total (As Zn)	0.877 lbs/day	2.179 lbs/day	-	-	-	Twice per Year	Composite	ABS
Carbon Tetrachloride	0.018 lbs/day	0.038 lbs/day	-	-	-	Twice per Year	Grab	ABS
1,2-Dichloroethane	0.068 lbs/day	0.211 lbs/day	-	-	-	Twice per Year	Grab	ABS
Chloroform	0.021 lbs/day	0.046 lbs/day	-	-	-	Twice per Year	Grab	ABS
Toluene	0.026 lbs/day	0.080 lbs/day	-	-	-	Twice per Year	Grab	ABS
Benzene	0.037 lbs/day	0.136 lbs/day	-	-	-	Twice per Year	Grab	ABS
Acenaphthylene	0.022 lbs/day	0.059 lbs/day	-	-	-	Twice per Year	Composite	ABS
Acenaphthene	0.022 lbs/day	0.059 lbs/day	-	-	-	Twice per Year	Composite	ABS
Acrylonitrile	0.096 lbs/day	0.242 lbs/day	-	-	-	Twice per Year	Grab	ABS
Anthracene	0.022 lbs/day	0.059 lbs/day	-	-	-	Twice per Year	Composite	ABS
Benzo (K) Fluoranthene	0.022 lbs/day	0.059 lbs/day	-	-	-	Twice per Year	Composite	ABS
Benzo (A) Pyrene	0.023 lbs/day	0.061 lbs/day	-	-	-	Twice per Year	Composite	ABS
Chlorobenzene	0.015 lbs/day	0.028 lbs/day	-	-	-	Twice per Year	Grab	ABS
Chrysene	0.022 lbs/day	0.059 lbs/day	-	-	-	Twice per Year	Grab	ABS
Diethyl Phthalate	0.081 lbs/day	0.203 lbs/day	-	-	-	Twice per Year	Grab	ABS

Dimethyl Phthalate	0.019 lbs/day	0.047 lbs/day	-	-	-	Twice per Year	Grab	ABS
Ethylbenzene	0.032 lbs/day	0.108 lbs/day	-	-	-	Twice per Year	Grab	ABS
Fluoranthene	0.025 lbs/day	0.068 lbs/day	-	-	-	Twice per Year	Grab	ABS
Fluorene	0.02 lbs/day	0.059 lbs/day	-	-	-	Twice per Year	Grab	ABS
Hexachlorobutadiene	0.02 lbs/day	0.049 lbs/day	-	-	-	Twice per Year	Composite	ABS
Hexachloroethane	0.021 lbs/day	0.054 lbs/day	-	-	-	Twice per Year	Composite	ABS
Methyl Chloride	0.086 lbs/day	0.19 lbs/day	-	-	-	Twice per Year	Grab	ABS
Methylene Chloride	0.04 lbs/day	0.089 lbs/day	-	-	-	Twice per Year	Grab	ABS
Nitrobenzene	0.027 lbs/day	0.068 lbs/day	-	-	-	Twice per Year	Composite	ABS
Phenanthrene	0.022 lbs/day	0.059 lbs/day	-	-	-	Twice per Year	Grab	ABS
Pyrene	0.025 lbs/day	0.067 lbs/day	-	-	-	Twice per Year	Grab	ABS
Tetrachloroethylene	0.022 lbs/day	0.056 lbs/day	-	-	-	Twice per Year	Grab	ABS
1,1-Dichloroethane	0.022 lbs/day	0.059 lbs/day	-	-	-	Twice per Year	Grab	ABS
1,1-Dichloroethylene	0.016 lbs/day	0.025 lbs/day	-	-	-	Twice per Year	Grab	ABS
1,1,1-Trichloroethane	0.021 lbs/day	0.054 lbs/day	-	-	-	Twice per Year	Grab	ABS
1,1,2-Trichloroethane	0.021 lbs/day	0.054 lbs/day	-	-	-	Twice per Year	Grab	ABS
Benzo (A) Anthracene	0.022 lbs/day	0.059 lbs/day	-	-	-	Twice per Year	Composite	ABS

1,2-Dichlorobenzene	0.077 lbs/day	0.163 lbs/day	-	-	-	Twice per Year	Grab	ABS
1,2-Dichloropropane	0.153 lbs/day	0.230 lbs/day	-	-	-	Twice per Year	Grab	ABS
1,2-Trans-Dichloroethylene	0.021 lbs/day	0.054 lbs/day	-	-	-	Twice per Year	Grab	ABS
1,2,4-Trichlorobenzene	0.068 lbs/day	0.140 lbs/day	-	-	-	Twice per Year	Composite	ABS
1,3-Dichlorobenzene	0.031 lbs/day	0.044 lbs/day	-	-	-	Twice per Year	Grab	ABS
1,4-Dichlorobenzene	0.015 lbs/day	0.028 lbs/day	-	-	-	Twice per Year	Grab	ABS
2-Chlorophenol	0.031 lbs/day	0.098 lbs/day	-	-	-	Twice per Year	Grab	ABS
2-Nitrophenol	0.041 lbs/day	0.069 lbs/day	-	-	-	Twice per Year	Composite	ABS
2,4-Dichlorophenol	0.039 lbs/day	0.112 lbs/day	-	-	-	Twice per Year	Composite	ABS
2,4-Dimethylphenol	0.018 lbs/day	0.036 lbs/day	-	-	-	Twice per Year	Composite	ABS
2,4-Dinitrotoluene	0.113 lbs/day	0.285 lbs/day	-	-	-	Twice per Year	Composite	ABS
2,4-Dinitrophenol	0.071 lbs/day	0.123 lbs/day	-	-	-	Twice per Year	Composite	ABS
2,6-Dinitrotoluene	0.255 lbs/day	0.640 lbs/day	-	-	-	Twice per Year	Composite	ABS
4-Nitrophenol	0.072 lbs/day	0.124 lbs/day	-	-	-	Twice per Year	Composite	ABS
4,6-Dinitro-O-Cresol	0.078 lbs/day	0.277 lbs/day	-	-	-	Twice per Year	Composite	ABS
Phenol, Single Compound	0.015 lbs/day	0.026 lbs/day	-	-	-	Twice per Year	Grab	ABS
Naphthalene	0.022 lbs/day	0.059 lbs/day	-	-	-	Twice per Year	Composite	ABS

Bis (2-Ethylhexyl) Phthalate	0.103 lbs/day	0.279 lbs/day	-	-	-	Twice per Year	Composite	ABS
Di-N-Butyl Phthalate	0.027 lbs/day	0.057 lbs/day	-	-	-	Twice per Year	Grab	ABS
Vinyl Chloride	0.104 lbs/day	0.268 lbs/day	-	-	-	Twice per Year	Grab	ABS
Trichloroethylene	0.021 lbs/day	0.054 lbs/day	-	-	-	Twice per Year	Grab	ABS
Hexachlorobenzene	0.015 lbs/day	0.028 lbs/day	-	-	-	Twice per Year	Composite	ABS
1,3 Dichloropropene	0.029 lbs/day	0.044 lbs/day	-	-	-	Twice per Year	Grab	ABS
3,4 Benzofluoranthene	0.023 lbs/day	0.061 lbs/day	-	-	-	Twice per Year	Composite	ABS
Chloroethane	0.104 lbs/day	0.268 lbs/day	-	-	-	Twice per Year	Grab	ABS

002T:

<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>
Toxicity, Ceriodaphnia Acute	-	0 pass(0)/fail(1)	-	-	-	Semi-Annually	Grab	WQBEL
Toxicity, Pimephales Acute	-	0 pass(0)/fail(1)	-	-	-	Semi-Annually	Grab	WQBEL

003S:

<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.	Semi-Annually	Grab	BPJ
Solids, Total Suspended	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ

Oil & Grease	-	-	-	-	15 mg/l	Semi-Annually	Grab	BPJ
Nitrogen, Kjeldahl Total (As N)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Nitrite Plus Nitrate Total 1 Det. (As N)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Sulfate, Total (As SO4)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Zinc Total Recoverable	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Semi-Annually	Estimate	BPJ
Solids, Total Dissolved	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Chemical Oxygen Demand (COD)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ

004S:

<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.	Semi-Annually	Grab	BPJ
Solids, Total Suspended	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Oil & Grease	-	-	-	-	15 mg/l	Semi-Annually	Grab	BPJ
Nitrogen, Kjeldahl Total (As N)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Nitrite Plus Nitrate Total 1 Det. (As N)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Sulfate, Total (As SO4)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ

Zinc Total Recoverable	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Semi-Annually	Estimate	BPJ
Solids, Total Dissolved	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Chemical Oxygen Demand (COD)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ

001S: Stormwater from non-process areas, former SBS plant and petroleum storage tank containment areas and well water from fire pond.

<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.	Semi-Annually	Grab	BPJ
Solids, Total Suspended	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Oil & Grease	-	-	-	-	15 mg/l	Semi-Annually	Grab	BPJ
Nitrogen, Kjeldahl Total (As N)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Nitrite Plus Nitrate Total 1 Det. (As N)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Sulfate, Total (As SO4)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Zinc Total Recoverable	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Semi-Annually	Estimate	BPJ
Solids, Total Dissolved	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Chemical Oxygen Demand (COD)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ

001Y:

<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>
Mercury, Total (As Hg)	-	-	-	-	REPORT ug/l	Annually	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
- ABS - Anti-backsliding

	BOD5		TSS	
	Max.	Avg.	Max.	Avg.
Process Total (mg/l)	92.0	34.0	159.0	49.0
Process Total (lb/day)	101.9	37.7	176.1	54.3
Non-process total (lb/day)	16.175	10.784	16.175	10.784
Final Mass Limits (lb/day)	118.1	48.4	192.2	65.0

BAT Limits are based on 40 CFR 414 Subpart 1 requirements

PARAMETER	LIMITS		MASS LIMIT		ACUTE CHRONIC HUMAN HEALTH	
	UG/L		LBS/D		LBS/D	Fish
	MAX.	AVG.	MAX.	AVG.		Water Consumption
Acenaphthene	59	22	0.065	0.024	6881.610	5395.301
Acenaphthylene	59	22	0.065	0.024		
Acrylonitrile*	242	96	0.268	0.106	17.989	0.532
Anthracene	59	22	0.065	0.024	277518.632	86138.77
Benzene *	136	37	0.151	0.041	1932.976	13.318
Benzo(a)anthracene*	59	22	0.065	0.024	1.331	0.039
3,4-Benzofluoranthene*	61	23	0.068	0.025	1.331	0.039
Benzo(k)fluoranthene*	59	22	0.065	0.024	1.331	0.039
Benzo(a)pyrene*	61	23	0.068	0.025	1.331	0.039
Bis(2-ethylhexyl) phthalate	279	103	0.309	0.114	15.250	10.081
Carbon Tetrachloride *	38	18	0.042	0.020	119.586	2.500
Chlorobenzene	28	15	0.031	0.017	10778.962	1442.485
Chloroethane	268	104	0.297	0.115		
Chloroform *	46	21	0.051	0.023	12742.424	64.616
2-Chlorophenol	98	31	0.109	0.034	1035.665	691.590
Chrysene*	59	22	0.065	0.024	1.331	0.039
Di-n-Butyl phthalate	57	27	0.063	0.030	31186.323	17830.293
1,2-Dichlorobenzene	163	77	0.181	0.085	8985.700	4086.191
1,3-Dichlorobenzene	44	31	0.049	0.034	6689.353	3041.940
1,4-Dichlorobenzene	28	15	0.031	0.017	1337.871	608.388
1,1-Dichloroethane	59	22	0.065	0.024		

OCPSF PERMIT LIMITS CALCULATIONS

FACILITY NAME : U S Amines (Bucks) LLC

LOCATION : Bucks, AL

NPDES NUMBER : AL0003085

IS THIS A RAYON MANUFACTURING FACILITY THAT USES THE VISCOSE PROCESS OR
AN ACRYLIC MANUFACTURER THAT USES THE ZINC CHLORIDE/SOLVENT PROCESS (YES =0, NO =1) 1

DOES THIS FACILITY USE END-OF-PIPE BIOLOGICAL TREATMENT (SUBPART I) (YES =0, NO =1) 0

OCPSF PRODUCT	SIC CODE	ANNUAL	PROCESS
		PROD.	WASTE
		MILLION	FLOW
		LBS/YR	MGD
Subpart B Rayon Fibers		0	0
Subpart C Other Fibers		0	0
Subpart D Thermoplastic Resins		0	0
Subpart E Thermosetting Resins		0	0
Subpart F Commodity Organic Chemicals		0	0
Subpart G Bulk Organic		81.5	0.1304
Subpart H Specialty Organic		0	0
OCPSF RELATED FLOWS	TOTAL	81.5	0.1304

FLOW FROM OTHER SOURCES (e.g. POTWs) 0 MGD

TOTAL FLOW FROM PROCESS, NON-PROCESS AND OTHER SOURCES 0.2376 MGD

RECEIVING STREAM 1Q10 1655.7 CFS

RECEIVING STREAM 7Q10 2207.53 CFS

RECEIVING STREAM ANNUAL-AVERAGE FLOW 23187.1 CFS

METAL-BEARING WASTE STREAM VOLUME 0.1185 MGD

CYANIDE-BEARING WASTE STREAM VOLUME 0.02263 MGD

1,2-Dichloroethane *	211	68	0.234	0.075		2669.353	4.494
1,1-Dichloroethylene *	25	16	0.028	0.018		520523.857	3840.748
1,2-trans-Dichloroethylene	54	21	0.060	0.023		70267.920	1626.794
2,4-Dichlorophenol	112	39	0.124	0.043		204588210.82	775.543
1,2-Dichloropropane	230	153	0.255	0.169		101.040	5.853
1,3-Dichloropropylene	44	29	0.049	0.032		146.083	4.048
Diethyl phthalate	203	81	0.225	0.090		304173.4620	158983.26
2,4-Dimethylphenol	36	18	0.040	0.020		5918.0871	3459.39
Dimethyl phthalate	47	19	0.052	0.021		7709950.559	2703481.1
4,6-Dinitro-o-cresol**	277	78	0.307	0.086		1957.3271	150.00
2,4-Dinitrophenol	123	71	0.136	0.079		37007.6390	814.35
2,4-Dinitrotoluene*	285	113	0.316	0.125		247.440385	1.27
2,6-Dinitrotoluene	641	255	0.710	0.282			
Ethylbenzene	108	32	0.120	0.035		14803.103171	5329.12
Fluoranthene	68	25	0.075	0.028		965.420113	912.52
Fluorene	59	22	0.065	0.024		37007.757926	11485.17
Hexachlorobenzene *	28	15	0.031	0.017		0.020965	0.001981
Hexachlorobutadiene *	49	20	0.054	0.022		1344.278261	5.123984
Hexachloroethane *	54	21	0.060	0.023		239.583806	12.910029
Methyl Chloride*	190	86	0.210	0.095			
Methylene Chloride*	89	40	0.099	0.044		43184.199874	54.772162
Naphthalene	59	22	0.065	0.024			
Nitrobenzene	68	27	0.075	0.030		4802.035864	199.52
2-Nitrophenol	69	41	0.076	0.045			
4-Nitrophenol	124	72	0.137	0.080			
Phenanthrene	59	22	0.065	0.024			
Phenol	26	15	0.029	0.017		5947677.505	122332.25
Pyrene	67	25	0.074	0.028		27755.824	8613.88
Tetrachloroethylene *	56	22	0.062	0.024		239.489	7.17
Toluene	80	26	0.089	0.029		103760.106	14350.28
Total Chromium	2770	1110	2.738	1.097	13721.7	2379.694	
Total Copper	3380	1450	3.340	1.433	160.83	151.850	
Total Cyanide	1200	420	0.226	0.079	196.29	61.856	111023.313
Total Lead	690	320	0.682	0.316	575.76	13.965	
Total Nickel	3980	1690	3.933	1.670	4602.33	681.521	11810.991
Total Zinc	2610	1050	2.579	1.038	1760.99	2366.959	177164.862
1,2,4-Trichlorobenzene	140	68	0.155	0.075		486.944	307.26
1,1,1-Trichloroethane	54	21	0.060	0.023			
1,1,2-Trichloroethane *	54	21	0.060	0.023		1136.427	6.8423
Trichloroethylene *	54	21	0.060	0.023		2182.490	28.5096
Vinyl Chloride *	268	104	0.297	0.115		177.957	0.2923

* DESIGNATES CARCINOGENIC COMPOUNDS

Metal acute and chronic calculations are based on a hardness of 50 mg/l as CaCO3

** SAME AS 4,6-DINITRO-2-METHYLPHENOL

Q _d *C _d + Q _{d2} *C _{d2} + Q _s *C _s = Q _r *C _r								Enter Max Daily Discharge as reported by Applicant (C _d) µg/l	Enter Avg Daily Discharge as reported by Applicant (C _d) µg/l	Partition Coefficient (Stream / Lake)
ID	Pollutant	Carcinogen Yes	Type	Background from upstream source (C _{d2}) Daily Max µg/l	Background from upstream source (C _{d2}) Monthly Avg µg/l	Background Instream (C _d) Daily Max µg/l	Background Instream (C _d) Monthly Avg µg/l			
1	Antimony		Metals	0	0	0	0	0	0	-
2	Arsenic**	YES	Metals	0	0	0	0	0	0	0.574
3	Beryllium		Metals	0	0	0	0	0	0	-
4	Cadmium**		Metals	0	0	0	0	0	0	0.236
5	Chromium / Chromium III**		Metals	0	0	0	0	0	0	0.210
6	Chromium / Chromium VI**		Metals	0	0	0	0	0	0	-
7	Copper**		Metals	0	0	0	0	0	0	0.386
8	Lead**		Metals	0	0	0	0	0	0	0.467
9	Mercury**		Metals	0	0	0	0	0.2	0	0.000
10	Nickel**		Metals	0	0	0	0	250	0	0.505
11	Selenium		Metals	0	0	0	0	0	0	-
12	Silver		Metals	0	0	0	0	0	0	-
13	Thallium		Metals	0	0	0	0	0	0	-
14	Zinc**		Metals	0	0	0	0	44	0	0.330
15	Cyanide		Metals	0	0	0	0	0	0	-
16	Total Phenolic Compounds		Metals	0	0	0	0	0	0	-
17	Hardness (As CaCO3)		Metals	0	0	0	0	0	0	-
18	Acetol		VOC	0	0	0	0	0	0	-
19	Acrylonitrile*	YES	VOC	0	0	0	0	0	0	-
20	Aldrin	YES	VOC	0	0	0	0	0	0	-
21	Benzene*	YES	VOC	0	0	0	0	0	0	-
22	Bromoform*	YES	VOC	0	0	0	0	0	0	-
23	Carbon Tetrachloride*	YES	VOC	0	0	0	0	0	0	-
24	Chlordane	YES	VOC	0	0	0	0	0	0	-
25	Cisnonhene		VOC	0	0	0	0	0	0	-
26	Chlorodibromo-Methane*	YES	VOC	0	0	0	0	0	0	-
27	Chloroethane		VOC	0	0	0	0	0	0	-
28	2-Chloro-Ethylvinyl Ether		VOC	0	0	0	0	0	0	-
29	Chloroform*	YES	VOC	0	0	0	0	0	0	-
30	4,4'-DDD	YES	VOC	0	0	0	0	0	0	-
31	4,4'-DDE	YES	VOC	0	0	0	0	0	0	-
32	4,4'-DDT	YES	VOC	0	0	0	0	0	0	-
33	Dichlorodibromo-Methane*	YES	VOC	0	0	0	0	0	0	-
34	1,1-Dichloroethane		VOC	0	0	0	0	0	0	-
35	1,2-Dichloroethane*	YES	VOC	0	0	0	0	0	0	-
36	Trans-1,2-Dichloro-Ethylene		VOC	0	0	0	0	0	0	-
37	1,1-Dichloroethylene*	YES	VOC	0	0	0	0	0	0	-
38	1,2-Dichloropropane		VOC	0	0	0	0	0	0	-
39	1,3-Dichloro-Propylene		VOC	0	0	0	0	0	0	-
40	Dieldrin	YES	VOC	0	0	0	0	0	0	-
41	Ethylbenzene		VOC	0	0	0	0	0	0	-
42	Methyl Bromide		VOC	0	0	0	0	0	0	-
43	Methyl Chloride		VOC	0	0	0	0	0	0	-
44	Methylene Chloride*	YES	VOC	0	0	0	0	0	0	-
45	1,1,2,2-Tetrachloro-Ethane*	YES	VOC	0	0	0	0	0	0	-
46	Tetrachloro-Ethylene*	YES	VOC	0	0	0	0	0	0	-
47	Toluene		VOC	0	0	0	0	0	0	-
48	Toxaphene	YES	VOC	0	0	0	0	0	0	-
49	Tributyltin (TBT)	YES	VOC	0	0	0	0	0	0	-
50	1,1,1-Trichloroethane		VOC	0	0	0	0	0	0	-
51	1,1,2-Trichloroethane*	YES	VOC	0	0	0	0	0	0	-
52	Trichloroethylene*	YES	VOC	0	0	0	0	0	0	-
53	Vinyl Chloride*	YES	VOC	0	0	0	0	0	0	-
54	p-Chloro-m-Cresol		Acids	0	0	0	0	0	0	-
55	2-Chlorophenol		Acids	0	0	0	0	0	0	-
56	2,4-Dichlorophenol		Acids	0	0	0	0	0	0	-
57	2,4-Dimethylphenol		Acids	0	0	0	0	0	0	-
58	4,6-Dinitro-O-Cresol		Acids	0	0	0	0	0	0	-
59	2,4-Dinitrophenol		Acids	0	0	0	0	0	0	-
60	4,6-Dinitro-2-methylphenol	YES	Acids	0	0	0	0	0	0	-
61	Dioxin (2,3,7,8-TCDD)	YES	Acids	0	0	0	0	0	0	-
62	2-Nitrophenol		Acids	0	0	0	0	0	0	-
63	4-Nitrophenol		Acids	0	0	0	0	0	0	-
64	Pentachlorophenol*	YES	Acids	0	0	0	0	0	0	-
65	Phenol		Acids	0	0	0	0	0	0	-
66	2,4,6-Trichlorophenol*	YES	Acids	0	0	0	0	0	0	-
67	Acenaphthene		Bases	0	0	0	0	0	0	-
68	Acenaphthylene		Bases	0	0	0	0	0	0	-
69	Anthracene		Bases	0	0	0	0	0	0	-
70	Benidine		Bases	0	0	0	0	0	0	-
71	Benzo(A)Anthracene*	YES	Bases	0	0	0	0	0	0	-
72	Benzo(A)Pyrene*	YES	Bases	0	0	0	0	0	0	-
73	3,4-Benzo-Fluoranthene		Bases	0	0	0	0	0	0	-
74	Benzo(GH)Perylene		Bases	0	0	0	0	0	0	-
75	Benzo(K)Fluoranthene		Bases	0	0	0	0	0	0	-
76	Bis (2-Chloroethoxy) Methane		Bases	0	0	0	0	0	0	-
77	Bis (2-Chloroethyl)-Ether*	YES	Bases	0	0	0	0	0	0	-
78	Bis (2-Chloroisopropyl) Ether		Bases	0	0	0	0	0	0	-
79	Bis (2-Ethylhexyl) Phthalate*	YES	Bases	0	0	0	0	0	0	-
80	4-Bromophenyl Phenyl Ether		Bases	0	0	0	0	0	0	-
81	Butyl Benzyl Phthalate		Bases	0	0	0	0	0	0	-
82	2-Chloronaphthalene		Bases	0	0	0	0	0	0	-
83	4-Chlorophenyl Phenyl Ether		Bases	0	0	0	0	0	0	-
84	Chrysene*	YES	Bases	0	0	0	0	0	0	-
85	Di-N-Butyl Phthalate		Bases	0	0	0	0	0	0	-
86	Di-N-Octyl Phthalate		Bases	0	0	0	0	0	0	-
87	Dibenz(A,H)Anthracene*	YES	Bases	0	0	0	0	0	0	-
88	1,2-Dichlorobenzene		Bases	0	0	0	0	0	0	-
89	1,3-Dichlorobenzene		Bases	0	0	0	0	0	0	-
90	1,4-Dichlorobenzene		Bases	0	0	0	0	0	0	-
91	3,4-Dichlorobenzene*	YES	Bases	0	0	0	0	0	0	-
92	Diethyl Phthalate		Bases	0	0	0	0	0	0	-
93	Dimethyl Phthalate		Bases	0	0	0	0	0	0	-
94	2,4-Dinitrotoluene*	YES	Bases	0	0	0	0	0	0	-
95	2,6-Dinitrotoluene		Bases	0	0	0	0	0	0	-
96	1,2-Diphenylhydrazine		Bases	0	0	0	0	0	0	-
97	Endosulfan (alpha)	YES	Bases	0	0	0	0	0	0	-
98	Endosulfan (beta)	YES	Bases	0	0	0	0	0	0	-
99	Endosulfan sulfate	YES	Bases	0	0	0	0	0	0	-
100	Endrin	YES	Bases	0	0	0	0	0	0	-
101	Endrin Aldehyde	YES	Bases	0	0	0	0	0	0	-
102	Fluoranthene		Bases	0	0	0	0	0	0	-
103	Fluorene		Bases	0	0	0	0	0	0	-
104	Heptachlor	YES	Bases	0	0	0	0	0	0	-
105	Heptachlor Epoxide	YES	Bases	0	0	0	0	0	0	-
106	Hexachlorobenzene*	YES	Bases	0	0	0	0	0	0	-
107	Hexachlorobutadiene*	YES	Bases	0	0	0	0	0	0	-
108	Hexachlorocyclohexan (alpha)	YES	Bases	0	0	0	0	0	0	-
109	Hexachlorocyclohexan (beta)	YES	Bases	0	0	0	0	0	0	-
110	Hexachlorocyclohexan (gamma)	YES	Bases	0	0	0	0	0	0	-
111	Hexachlorocyclopentadiene		Bases	0	0	0	0	0	0	-
112	Hexachloroethane		Bases	0	0	0	0	0	0	-
113	Indeno(1,2,3-CD)Pyrene*	YES	Bases	0	0	0	0	0	0	-
114	Isophorone		Bases	0	0	0	0	0	0	-
115	Naphthalene		Bases	0	0	0	0	0	0	-
116	Nitrobenzene		Bases	0	0	0	0	0	0	-
117	N-Nitrosodi-N-Propylamine*	YES	Bases	0	0	0	0	0	0	-
118	N-Nitrosodi-N-Methylamine*	YES	Bases	0	0	0	0	0	0	-
119	N-Nitrosodi-N-Phenylamine*	YES	Bases	0	0	0	0	0	0	-
120	PCB-1016	YES	Bases	0	0	0	0	0	0	-
121	PCB-1221	YES	Bases	0	0	0	0	0	0	-
122	PCB-1232	YES	Bases	0	0	0	0	0	0	-
123	PCB-1242	YES	Bases	0	0	0	0	0	0	-
124	PCB-1248	YES	Bases	0	0	0	0	0	0	-
125	PCB-1254	YES	Bases	0	0	0	0	0	0	-
126	PCB-1260	YES	Bases	0	0	0	0	0	0	-
127	Phenanthrene		Bases	0	0	0	0	0	0	-
128	Pyrene		Bases	0	0	0	0	0	0	-
129	1,2,4-Trichlorobenzene		Bases	0	0	0	0	0	0	-

0.1941	Enter Q _d = wastewater discharge flow from facility (MGD)
0.300317	Q _d = wastewater discharge flow (cfs) (this value is calculated from the MGD)
0	Enter or estimated, Q _{d2} = background stream flow from upstream source (cfs)
2207.53	Enter TQ10, Q _s = background stream flow in cfs above point of discharge
1655.7	Enter or estimated, TQ10, Q _s = background stream flow in cfs above point of discharge (TQ10 estimated at 75% of TQ10)
0	Enter flow from upstream discharge Q _{d2} = background stream flow in MGD above point of discharge
22187.1	Enter Mean Annual Flow, Q _s = background stream flow in cfs above point of discharge
3927.6	Enter TQ2, Q _s = background stream flow in cfs above point of discharge (For LWF class streams)
Enter to Left	Enter C _d = background in-stream pollutant concentration in µg/l (assuming this is zero "0" unless there is data)
Q _d + Q _{d2} + Q _s	Q _s = resultant in-stream flow, after discharge
Calculated on other sheets	C _s = resultant in-stream pollutant concentration in µg/l in the stream (after complete mixing occurs)
50	Enter, Background Hardness above point of discharge (assumed 50 South of Birmingham and 100 North of Birmingham)
7.00 s.u.	Enter, Background pH above point of discharge
YES	Enter, Is discharge to a stream? "YES" Other option would be to a Lake. (This changes the partition coefficients for the metals)

** Using Partition Coefficients

September 3, 2020

Facility Name: US Amines (Bucks) LLC NPDES No.: AL0003085																	
Freshwater F&W Classification				Freshwater Acute (µg/L) Q _a = 10:10				Freshwater Chronic (µg/L) Q _a = 70:10				Human Health Consumption Fish only (µg/L) Carcinogen Q _a = Annual Average Non-Carcinogen Q _a = 70:10					
ID	Pollutant	RP?	Carcinogenicity	Background from upstream source (C ₂₅) Daily Max	Max Daily Discharge as reported by Applicant (C _{max})	Water Quality Criteria (C ₁)	Draft Permit Limit (C _{max})	20% of Draft Permit Limit	Background from upstream source (C ₂₅) Monthly Ave	Avg Daily Discharge as reported by Applicant (C _{max})	Water Quality Criteria (C ₁)	Draft Permit Limit (C _{max})	20% of Draft Permit Limit	Water Quality Criteria (C ₁)	Draft Permit Limit (C _{max})	20% of Draft Permit Limit	RP?
1	Antimony			0	0	-	-	-	0	0	-	-	-	3.73E+02	2.74E+06	5.49E+05	No
2	Arsenic		YES	0	0	592.334	3266234.096	653246.819	No	0	261.324	1921166.155	384233.231	3.03E-01	2.34E+04	4.68E+03	No
3	Beryllium			0	0	-	-	-	0	0	-	-	-	-	-	-	-
4	Cadmium			0	0	4.347	23070.817	4794.163	No	0	0.644	4731.569	946.320	-	-	-	-
5	Chromium/ Chromium III			0	0	1537.913	8480315.824	1696063.165	No	0	200.051	1470706.499	294141.300	-	-	-	-
6	Chromium/ Chromium VI			0	0	16.000	80226.747	17645.349	No	0	11.000	80666.287	16133.657	-	-	-	-
7	Copper			0	0	18.026	99400.532	19880.106	No	0	12.766	93648.153	18769.631	-	-	-	-
8	Lead			0	0	64.531	355634.263	71168.853	No	0	2.515	15487.043	3697.409	-	-	-	-
9	Mercury			0.2	0	2.400	13234.012	2646.802	No	0	0.012	58.220	17.644	-	-	-	-
10	Nickel			250	0	515.824	2844344.048	568868.810	No	0	57.292	421192.629	84238.526	-	-	-	-
11	Selenium			0	0	20.000	110283.434	22056.687	No	0	5.000	36758.312	7351.662	-	-	-	-
12	Silver			0	0	0.976	5364.272	1076.854	No	0	-	-	-	-	-	-	-
13	Thallium			0	0	-	-	-	0	0	-	-	-	-	-	-	-
14	Zinc			44	0	197.369	1068325.500	217665.100	No	0	196.903	1462857.902	292571.580	-	-	-	-
15	Cyanide			0	0	22.000	121311.777	24262.355	No	0	5.200	36228.645	7645.729	-	-	-	-
16	Total Phenolic Compounds			0	0	-	-	-	0	0	-	-	-	-	-	-	-
17	Hardness (As CaCO3)			0	0	-	-	-	0	0	-	-	-	-	-	-	-
18	Acrolein			0	0	-	-	-	0	0	-	-	-	5.43E+00	3.99E+04	7.98E+03	No
19	Acrylonitrile		YES	0	0	-	-	-	0	0	-	-	-	1.44E-01	1.11E+04	2.22E+03	No
20	Aldrin		YES	0	0	3.000	16542.515	3308.503	No	0	1.300	9557.161	1911.432	-	-	-	-
21	Benzene		YES	0	0	-	-	-	0	0	-	-	-	1.55E+01	1.19E+06	2.38E+05	No
22	Bromoforn		YES	0	0	-	-	-	0	0	-	-	-	7.88E+01	6.08E+06	1.22E+06	No
23	Carbon Tetrachloride		YES	0	0	-	-	-	0	0	-	-	-	9.57E-01	7.39E+04	1.48E+04	No
24	Chlordane		YES	0	0	2.400	13234.012	2646.802	No	0	0.004	31.612	6.322	-	-	-	-
25	Chlorobenzene			0	0	-	-	-	0	0	-	-	-	4.73E-04	3.65E+01	7.30E+00	No
26	Chlorodibromo-Methane		YES	0	0	-	-	-	0	0	-	-	-	9.86E+02	6.68E+08	1.33E+06	No
27	Chloroethane			0	0	-	-	-	0	0	-	-	-	7.41E+00	5.72E+05	1.14E+05	No
28	2-Chloro-Ethylvinyl Ether			0	0	-	-	-	0	0	-	-	-	-	-	-	-
29	Chloroform		YES	0	0	-	-	-	0	0	-	-	-	1.02E+02	7.88E+06	1.58E+06	No
30	4,4'-DDD		YES	0	0	-	-	-	0	0	-	-	-	1.81E-04	1.40E+01	2.80E+00	No
31	4,4'-DDE		YES	0	0	-	-	-	0	0	-	-	-	1.28E-04	9.89E+00	1.98E+00	No
32	4,4'-DDT		YES	0	0	-	-	-	0	0	-	-	-	1.28E-04	9.89E+00	1.98E+00	No
33	Dichlorobromo-Methane		YES	0	0	-	-	-	0	0	-	-	-	1.00E+01	7.75E+05	1.55E+05	No
34	1,1-Dichloroethane			0	0	-	-	-	0	0	-	-	-	-	-	-	-
35	1,2-Dichloroethane		YES	0	0	-	-	-	0	0	-	-	-	2.14E+01	1.65E+06	3.30E+05	No
36	Trans-1,2-Dichloro-Ethylene			0	0	-	-	-	0	0	-	-	-	5.91E+03	4.34E+07	8.68E+06	No
37	1,1-Dichloroethylene		YES	0	0	-	-	-	0	0	-	-	-	4.17E+03	3.22E+06	6.43E+07	No
38	1,2-Dichloropropane			0	0	-	-	-	0	0	-	-	-	8.49E+00	6.24E+04	1.25E+04	No
39	1,3-Dichloro-Propylene			0	0	-	-	-	0	0	-	-	-	1.23E+01	9.03E+04	1.81E+04	No
40	Dieldrin		YES	0	0	0.240	1323.401	264.680	No	0	0.056	411.693	82.339	-	-	-	-
41	Ethylbenzene			0	0	-	-	-	0	0	-	-	-	3.12E-05	2.41E+00	4.82E-01	No
42	Methyl Bromide			0	0	-	-	-	0	0	-	-	-	1.24E+03	9.15E+06	1.83E+06	No
43	Methyl Chloride			0	0	-	-	-	0	0	-	-	-	8.71E+02	6.40E+06	1.28E+06	No
44	Methylene Chloride		YES	0	0	-	-	-	0	0	-	-	-	3.46E+02	2.67E+07	5.34E+06	No
45	1,1,2,2-Tetrachloro-Ethane		YES	0	0	-	-	-	0	0	-	-	-	2.33E+00	1.80E+05	3.60E+04	No
46	Tetrachloro-Ethylene		YES	0	0	-	-	-	0	0	-	-	-	1.92E+00	1.48E+05	2.96E+04	No
47	Toluene			0	0	-	-	-	0	0	-	-	-	8.72E+03	6.41E+07	1.28E+07	No
48	Toxaphene		YES	0	0	0.730	4025.345	805.069	No	0	0.0002	1.470	0.294	-	-	-	-
49	Tributyltin (TBT)		YES	0	0	0.480	2536.519	507.304	No	0	0.072	529.320	105.864	-	-	-	-
50	1,1,1-Trichloroethane			0	0	-	-	-	0	0	-	-	-	-	-	-	-
51	1,1,2-Trichloroethane		YES	0	0	-	-	-	0	0	-	-	-	9.10E+00	7.02E+05	1.40E+05	No
52	Trichloroethylene			0	0	-	-	-	0	0	-	-	-	1.75E+01	1.35E+06	2.70E+05	No
53	Vinyl Chloride		YES	0	0	-	-	-	0	0	-	-	-	1.42E+00	1.10E+05	2.20E+04	No
54	p-Chloro-m-Cresol			0	0	-	-	-	0	0	-	-	-	-	-	-	-
55	2-Chlorophenol			0	0	-	-	-	0	0	-	-	-	8.71E+01	6.40E+05	1.28E+05	No
56	2,4-Dichlorophenol			0	0	-	-	-	0	0	-	-	-	1.72E+02	1.26E+06	2.53E+05	No
57	2,4-Dimethylphenol			0	0	-	-	-	0	0	-	-	-	4.88E+02	3.68E+06	7.32E+05	No
58	4,6-Dinitro-O-Cresol			0	0	-	-	-	0	0	-	-	-	-	-	-	-
59	2,4-Dinitrophenol			0	0	-	-	-	0	0	-	-	-	-	-	-	-
60	4,6-Dinitro-2-methylphenol		YES	0	0	-	-	-	0	0	-	-	-	3.11E+03	2.29E+07	4.57E+06	No
61	Dioxin (2,3,7,8-TCDD)		YES	0	0	-	-	-	0	0	-	-	-	1.65E+02	1.26E+07	2.55E+06	No
62	2-Nitrophenol			0	0	-	-	-	0	0	-	-	-	2.87E+06	2.06E+03	4.12E+04	No
63	4-Nitrophenol			0	0	-	-	-	0	0	-	-	-	-	-	-	-
64	Pentachlorophenol		YES	0	0	8.723	48101.889	9620.378	No	0	6.693	49201.616	9840.323	-	-	-	-
65	Phenol			0	0	-	-	-	0	0	-	-	-	1.77E+00	1.36E+05	2.73E+04	No
66	2,4,6-Trichlorophenol		YES	0	0	-	-	-	0	0	-	-	-	5.00E+05	3.68E+09	7.35E+08	No
67	Acenaphthene			0	0	-	-	-	0	0	-	-	-	1.41E+00	1.09E+05	2.18E+04	No
68	Acenaphthylene			0	0	-	-	-	0	0	-	-	-	5.79E+02	4.25E+06	8.51E+05	No
69	Anthracene			0	0	-	-	-	0	0	-	-	-	-	-	-	-
70	Benidine			0	0	-	-	-	0	0	-	-	-	2.33E+04	1.72E+08	3.43E+07	No
71	Benzo(A)Anthracene		YES	0	0	-	-	-	0	0	-	-	-	1.16E-04	8.52E-01	1.70E-01	No
72	Benzo(A)Pyrene		YES	0	0	-	-	-	0	0	-	-	-	1.07E-02	8.23E+02	1.65E+02	No
73	3,4-Benzo-Fluoranthene			0	0	-	-	-	0	0	-	-	-	1.07E-02	8.23E+02	1.65E+02	No
74	Benzo(GH)Perylene			0	0	-	-	-	0	0	-	-	-	1.07E-02	7.83E+01	1.57E+01	No
75	Benzo(K)Fluoranthene			0	0	-	-	-	0	0	-	-	-	1.07E-02	7.83E+01	1.57E+01	No
76	Bis (2-Chloroethoxy) Methane			0	0	-	-	-	0	0	-	-	-	-	-	-	-
77	Bis (2-Chloroethoxy) Ether		YES	0	0	-	-	-	0	0	-	-	-	3.07E-01	2.37E+04	4.75E+03	No
78	Bis (2-Chloroethoxy) Propyl Ether			0	0	-	-	-	0	0	-	-	-	3.78E+04	2.78E+08	5.56E+07	No
79	Bis (2-Ethylhexyl) Phthalate		YES	0	0	-	-	-	0	0	-	-	-	1.28E+00	9.80E+04	1.96E+04	No
80	4-Bromophenyl Phenyl Ether			0	0	-	-	-	0	0	-	-	-	-	-	-	-
81	Butyl Benzyl Phthalate			0	0	-	-	-	0	0	-	-	-	1.13E+03	8.29E+06	1.66E+06	No
82	2-Chloronaphthalene			0	0	-	-	-	0	0	-	-	-	9.24E+02	6.79E+06	1.36E+06	No
83	4-Chlorophenyl Phenyl Ether			0	0	-	-	-	0	0	-	-	-	-	-	-	-
84	Chrysene		YES	0	0	-	-	-	0	0	-	-	-	1.97E-02	8.23E+02	1.65E+02	No
85	Di-n-Butyl Phthalate			0	0	-	-	-	0	0	-	-	-	2.62E+03	1.93E+07	3.85E+06	No
86	Di-n-Octyl Phthalate			0	0	-	-	-	0	0	-	-	-	-	-	-	-
87	Dibenz(A,H)Anthracene		YES	0	0	-	-	-	0	0	-	-	-	1.07E-02	8.23E+02	1.65E+02	No
88	1,2-Dichlorobenzene			0	0	-	-	-	0	0	-	-	-	7.55E+02	5.55E+06	1.11E+06	No
89	1,3-Dichlorobenzene			0	0	-	-	-	0	0	-	-	-	5.02E+02	4.13E+06	8.27E+05	No
90	1,4-Dichlorobenzene			0	0	-	-	-	0	0	-	-	-	1.12E+02	8.27E+05	1.65E+05	

Mixing Zone Analysis Summary

Page 1

REQUEST INFORMATION

request number: 3443

From: (Responsible Engineer) Scott Ramsey In Branch/Section Industrial
Date Submitted 10/23/2017 Date Required 11/22/2017 FUND Code 210
Date Permit application received by NPDES program 7/19/2017

Receiving Waterbody Mobile River
Previous Stream Name
Facility Name US Amines (Name of Discharger-WQ will use to file)
Hoechst Celanese Corp Previous Discharger Name
River Basin Mobile Outfall Latitude 30.979680 (decimal degrees)
*County Mobile Outfall Longitude -87.996990 (decimal degrees)
Permit Number AL0003085 Permit Type CONVERSION
Permit Status Active
Type of Discharger INDUSTRIAL

Do other discharges exist that may impact the model?
☐ Yes ☒ No

If yes, impacting dischargers names.

Impacting dischargers permit numbers.

Existing Discharge Design Flow 0.183 MGD
Proposed Discharge Design Flow 0.3 MGD
Note: The flow rates given should be those requested for modeling.

Seasonal limits requested? ☐ Yes ☒ No

If not seasonal, only the summer sections will be used

Comments included

☐ Yes ☒ NoInformation Verified By JBRYear File Was Started 199212 Digit HUC Code 031602040106Use Classification F&WDate of MZ Response 6/29/2020Site Visit Completed? ☒ Yes ☐ NoDate of Site Visit 6/18/2020

Hydrology

Drainage Area	<u>43000</u>	<u>sq mi</u>
Stream 7Q10	<u>2207.53</u>	<u>cfs</u>
Stream 1Q10	<u>1655.7</u>	<u>cfs</u>
Stream 7Q2	<u>3927.61</u>	<u>cfs</u>
Annual Average	<u>23187.11</u>	<u>cfs</u>

Method Used to Calculate

<u>ADEM Estimate w/USGS Gage Data</u>
<u>75% of 7Q10</u>
<u>ADEM Estimate w/USGS Gage Data</u>
<u>ADEM Estimate w/USGS Gage Data</u>

Date of MZ Analysis 6/25/2020Model Completed by JBR

Pollutant Category

Whole Effluent Toxicity (WET) ☒ Thermal ☐ Pathogens ☐

Mixing Zone Analysis Summary

Page 2

WET Parameters

Summer

Acute

Ambient Streamflow 1655.7 cfs
ZID Length 4.5 Meters
ZID IWC 2.5 %

Chronic

Ambient Streamflow cfs
Mixing Zone Length Meters
Mixing Zone IWC %

Winter

Acute

Ambient Streamflow cfs
ZID Length 4.5 Meters
ZID IWC %

Chronic

Ambient Streamflow cfs
Mixing Zone Length Meters
Mixing Zone IWC %

Thermal Parameters

Summer

Ambient Streamflow cfs
Mixing Zone Length Meters
Max. Effluent Temp °C

Winter

Ambient Streamflow cfs
Mixing Zone Length Meters
Max. Effluent Temp °C

Pathogen Parameters

Summer

Ambient Streamflow cfs
ZID Length Meters
Max. Effluent Fecal Conc Cols/100 mls
Max. Effluent E. coli Conc Cols/100 mls
Monthly Average Effluent E. coli Conc Cols/100 mls
Max. Effluent Enterococci Conc (for coastal waters) Cols/100 mls

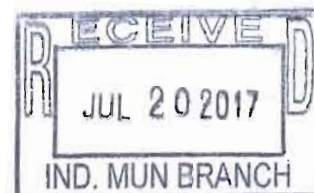
Winter

Ambient Streamflow cfs
ZID Length Meters
Max. Effluent Fecal Conc Cols/100 mls
Max. Effluent E. coli Conc Cols/100 mls
Monthly Average Effluent E. coli Conc Cols/100 mls
Max. Effluent Enterococci Conc (for coastal waters) Cols/100 mls

Comments
and/or
Notations

**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

- | | |
|--|---|
| <input type="checkbox"/> INITIAL PERMIT APPLICATION FOR NEW FACILITY | <input type="checkbox"/> INITIAL PERMIT APPLICATION FOR EXISTING FACILITY |
| <input type="checkbox"/> MODIFICATION OF EXISTING PERMIT | <input checked="" type="checkbox"/> REISSUANCE OF EXISTING PERMIT |
| <input type="checkbox"/> REVOCATION & REISSUANCE OF EXISTING PERMIT | |

1. Facility Name: U.S. Amines (Bucks) LLC

a. Operator Name: U.S. Amines (Bucks) LLC

- 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 0 8 5

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: 14086 Highway 43 North

City: Axis County: Mobile State: Alabama Zip: 36505

Facility (Front Gate) Latitude: 30° 59' 10.81" Longitude: 088° 01'25.22"

6. Facility Mailing Address (Street or Post Office Box): 14086 Highway 43 North

City: Axis State: Alabama Zip: 36505

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

Name and Title: Eldon J. Burr, Division Manager

Address: 14086 Highway 43 North

City: Axis State: Alabama Zip: 36505

Phone Number: 251-829-6601

EMAIL Address: ejburr@usamines.com

8. Designated Facility Contact:

Name and Title: Samantha R. Johnston, Environmental Engineer

Phone Number: 251-829-3841

EMAIL Address: srjohnston@usamines.com

9. Designated Discharge Monitoring Report Contact:

Name and Title: Samantha R. Johnston, Environmental Engineer

Phone Number: 251-829-3841

EMAIL Address: srjohnston@usamines.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: 14086 Highway 43 North

City: Axis County: Mobile State: Alabama Zip: 36505

b) Parent Corporation of Applicant:

Name: U.S. Amines LTD

Address: 14086 Highway 43 North

City: Axis State: Alabama Zip: 36505

c) Subsidiary Corporation(s) of Applicant:

Name: N/A
Address: _____
City: _____ State: _____ Zip: _____

d) Corporate Officers:

Name: Kevin McNally, General Manager
Address: 14086 Highway 43 North
City: Axis State: Alabama Zip: 36505

Name: Eldon J. Burr, Division Manager
Address: 14086 Highway 43 North
City: Axis State: Alabama Zip: 36505

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

Name: Trident Corporate Services
Address: 545 Fifth Avenue, Suite 402
City: New York State: New York Zip: 10017

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

Name: N/A
Address: _____
City: _____ State: _____ Zip: _____

Name: _____
Address: _____
City: _____ State: _____ Zip: _____

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

Name: N/A

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 Supplement 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>
None			

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. 2869
- b. _____
- c. _____
- d. _____
- e. _____

Supplement to ADEM Form 187

Section A

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.

Permit / Registration Type	Description	Permit ID #	Regulatory Agency	Permittee Name
NPDES	Wastewater Stormwater Discharge Permit	AL0003085	ADEM	U.S. Amines (Bucks) LLC
Water	Drinking Water Permit	PSWID0001037	ADEM	U.S. Amines (Bucks) LLC
Air	U.S. Amines Title V Air Permit	503-5010	ADEM	U.S. Amines (Bucks) LLC
RCRA	EPA ID Number	ALD056113756	ADEM	U.S. Amines (Bucks) LLC
Solid Waste	Medical Waste ID Number	G-OTH00382	ADEM	U.S. Amines (Bucks) LLC
*Radiation	Radioactive Material License	749(previous permit)	ADPH	U.S. Amines (Bucks) LLC
Chemical	Domestic Chemical Diversion Control Registration	005706UBW	DOJ	U.S. Amines (Bucks) LLC
Chemical	Domestic Chemical Diversion Control Registration	006135UUZ	DOJ	U.S. Amines (Bucks) LLC
Ethanol	Industrial Alcohol User Permit	SDA-AL-218	ATF	U.S. Amines (Bucks) LLC
Chemical	Alabama State Board of Pharmacy Registration	700110	ABOP	U.S. Amines (Bucks) LLC
Well	Well Water Certification of Use	COU No. 80	ADECA	U.S. Amines (Bucks) LLC
AST	Aboveground Storage Tank Registration	19160 097 016035	ADEM	U.S. Amines (Bucks) LLC

*U.S. Amines is no longer required to have a radiation permit. Therefore the previous permit number was listed for historical purposes.

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 checked="" 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 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):

See Supplement Sheet

Supplement to ADEM Form 187**Section B****3. Give a brief description of all operations at this facility including primary products or services:**

The table below lists manufacturing units at the U.S. Amines facility and includes reaction technology and principle raw materials for each Process.

Summary of Plant Processes		
Unit / Product	Reaction Technology	Principle Raw Materials
Amine 1 & 2 Aliphatic Amines	Continuous (Vapor phase nickel catalyst) (Liquid phase nickel catalyst)	Acetone Ammonia Amyl alcohol Aniline Hydrogen Isopropanol Ethanol Cyclohexanol n-butanol n-propanol Propionitrile Triallylamine Diallylamine
General Plant	N/A	Diesel Fuel Gasoline Sodium Hydroxide Sodium Hypochlorite

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)
N/A			

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

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

Regulated Process	Applicable Category	Applicable Subpart	Type of Discharge Flow (batch, continuous, intermittent)
See Supplement Sheet			

2b.

Process Description	Last 12 Months (gals/day) Highest Month Average*	Highest Flow Year of Last 5 (gals/day) Monthly Average*	Discharge Type (batch, continuous, intermittent)
See Supplement Sheet			

* 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: N/A 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.

Non categorical 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)
3) Amines Cooling Tower	23,500	No Data	continuous

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

- a. Number of batch discharges: N/A 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: _____

Supplement to ADEM Form 187

Section C

2a.

Regulated Process	Applicable Category	Applicable Subpart	Type of Discharge Flow
1) Amines Boiler Blowdown	OCPSF	Subpart G & I	Continuous
2) Amines Utility and Washdown Area	OCPSF	Subpart G & I	Continuous
4) Amines Tank Farm Stormwater	OCPSF	Subpart G & I	Intermittent
5) Amines Railcar / Tank Truck Loading	OCPSF	Subpart G & I	Intermittent
6) Amines Process Reaction Water	OCPSF	Subpart G & I	Continuous

2b.

Process Description	Last 12 Months (gals / day) Highest Month Average	Highest Flow Year of Last 5 (gals / day) Monthly Average	Discharge Type
1) Amines Boiler Blowdown	25,953		Continuous
2) Amines Utility and Washdown Area	6,348		Continuous
4) Amines Tank Farm Stormwater	23,543		Intermittent
5) Amines Railcar / Tank Truck Loading	5,920		Intermittent
6) Amines Process Reaction Water	69,517		Continuous

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
N/A		

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:

DSN002 is equipped with an automatic 24-hour composite sampler and flow monitoring equipment. Several locations within the facility are equipped with flow monitoring equipment, including holding tanks prior to aeration basins, the aeration basins, and other process flows.

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
See Supplement Sheet	See Supplement Sheet

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

Supplement to ADEM Form 187

Section C

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

Trade Name	Chemical Composition	Purpose	96-hr tolerance limit	Quantity used	Frequency of use	Discharge Conc. (from boiler/CT)	EPA Registration Number
Caustic Soda	20-50% NaOH	Boiler Additive			Daily	N/A	N/A
BLR 92	Sodium Molybdate dihydrate (<1.5%), Potassium Hydroxide (<3%)	Boiler Additive - Polymer Dispersant	Fathead Minnow LC50 = 3,536 mg/l	Approx 4.1 lb/day	Daily	20 - 25 ppm	N/A
BLR 26	Hydroquinone (<6%), Trade Secret (Unknown %)	Boiler Additive - Oxygen Scavenger and Amine		Approx 6.0 lb/day	Daily	negligible (consumed)	N/A
Zee ScavHQ12	Hydroquinone (<6%), Trade Secret (Unknown %)	Boiler Additive - Oxygen Scavenger With No Amine		Approx 1.4 lb/day	Daily	negligible (consumed)	N/A
Caustic Soda	20-50% NaOH	Cooling Tower Additive			Daily		N/A
CWT-800	Blended Phosphates (Unknown %)	Cooling Tower - Corrosion Inhibitor	Rainbow Trout LC50 = >100 mg/l, Mysid Shrimp LC50 = >100 mg/l	Approx 9.6 lb/day	Daily	50 - 60 ppm	N/A
Tower 16T	Unknown	Cooling Tower Additive - Polymer Dispersant		Approx 8.2 lb/day	Daily	40 -50 ppm	N/A
Bromotox	Sodium Bromide (40%)	Cooling Tower Additive - Bromine		Approx 22.4	3 times per week	negligible (consumed)	3377-25-12446

Trade Name	Chemical Composition	Purpose	96-hr tolerance limit	Quantity used	Frequency of use	Discharge Conc. (from boiler/CT)	EPA Registration Number
		Biocide		lb/day			
Biotrol 15	Alkyl dimethyl benzyl ammonium chloride (50%), Ethanol (5%)	Cooling Tower Additive - Algaecide	Daphnia magna LC50 = 5.8 µg/l, Pimephales promelas LC50 = 280 µg/l	Approx 32 lb/week	Once per week	30-40 ppm (maximum)	10324-42-12446
BIOD 3	Poly(oxy-1, 2-ethanediyl), alpha-(nonylphenyl-omega-hydroxy) (>95%)	Cooling Tower Additive – Surfactant		Approx 48.1 lb/day	1 time per week	30 - 40 ppm	N/A
Closed 1P	Nitrite (Unknown %)	Closed Loop System Additive – Corrosion Inhibitor		Initial Charge	Once per change	N/A	N/A
Closed 2	Sodium Hydroxide (<20%), Sodium Tetraborate (<15%), Sodium Molybdate (<15%)	Closed Loop System Additive – Corrosion Inhibitor		Initial Charge	Once per change	N/A	N/A
EC 63T	Cationic Polyacrylamide Polymer (Unknown %), Petroleum Distillates (20 - 25%)	Wastewater Sludge Press Flocculant	Brachydanio rerio LC50 = >1 - 10 mg/l, Daphnia magna EC50 = 10 - 100 mg/l	Approx 6.4 lb/day	While sludge press is operating	10 -20 ppm	N/A

Trade Name	Chemical Composition	Purpose	96-hr tolerance limit	Quantity used	Frequency of use	Discharge Conc. (from boiler/CT)	EPA Registration Number
Sodium Hypochlorite	Sodium Hypochlorite (18%), Sodium Hydroxide (1 - 5%)	Cooling Tower Additive - Microorganism Control Chemical	Daphnia magna (? hr) EC50 = 100 mg/l, Shrimp (48 hr) EC50 = 33 - 100 mg/l	Approx 115 lb/day		negligible (consumed)	38836-3
ROA 10	Blend of dispersant and Phosphonate HEDP	RO Additive – Scale Inhibitor		4 lb/day	Daily when RO is running	0.5 ppm	N/A
Dowtherm 4000 55	Ethylene Glycol (52.0 - 60.0%), Dipotassium hydrogen phosphate (<3%)	Closed Loop System Additive – corrosion inhibitor	Unknown Organism (? hr) LC50/EC50 = >100 mg/l	Initial Charge 55 wt%	Once per change	N/A	N/A

SECTION D – WATER SUPPLY

Water Sources (check as many as are applicable):

☒ Private Well

☐ Surface Water

☐ Municipal Water Utility (Specify City): _____

☐ Other (Specify): _____

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

City: _____ *MGD Well: _____ *MGD Well Depth: _____ Ft. Latitude: _____ Longitude: See Supplement

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)

Supplement to ADEM Form 187

Section D – Water Supply

Well Name	Max Volume (MGD)	Average Volume (MGD)	Well Depth (feet)	Latitude	Longitude
SBS Well (WE-4)	0.864	0.0015	130	30°59'07" N	088°01'24" W
Admin Well (WE-9)	0.014	0.004	70	30°59'07" N	088°01'27" W
Front Well (WE-12)	0.864	0.554	115	30°59'05" N	088°02'03" W
WWT Well (WE-13)	0.432	0	93	30°59'02" N	088°01'12" W

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
Used oil, other drummed waste	Covered and curbed outside storage area

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 treatment plant sludge	1,000	Offsite - EcoSouth

***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?* (Y / N)
Mobile River	Y (Mercury)	N
Unnamed Tributary of Cold Creek	N	N/A
Cold Creek	Y (Mercury)	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.

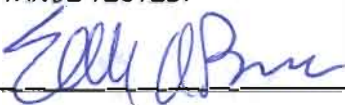
SECTION K - APPLICATION CERTIFICATION

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:

18 July 2017

(TYPE OR PRINT)

NAME OF RESPONSIBLE OFFICIAL: Eldon J. Burr

TITLE OF RESPONSIBLE OFFICIAL: Division Manager

MAILING ADDRESS: 14086 Highway 43 North

CITY, STATE, ZIP: Axis, Alabama 36505

PHONE: 251-829-6601

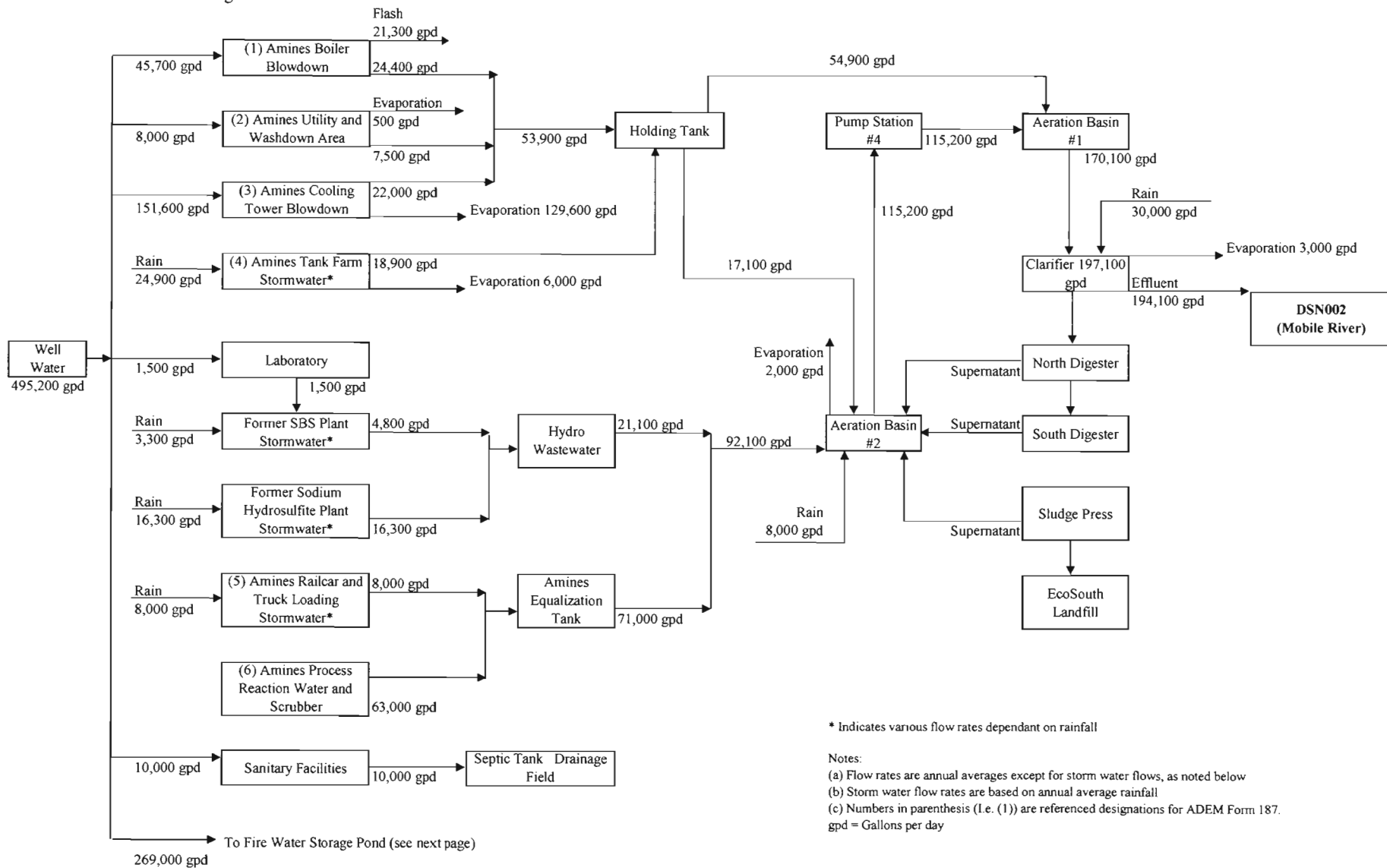
335-6-6-.09 SIGNATORIES TO PERMIT APPLICATIONS AND REPORTS.

(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.

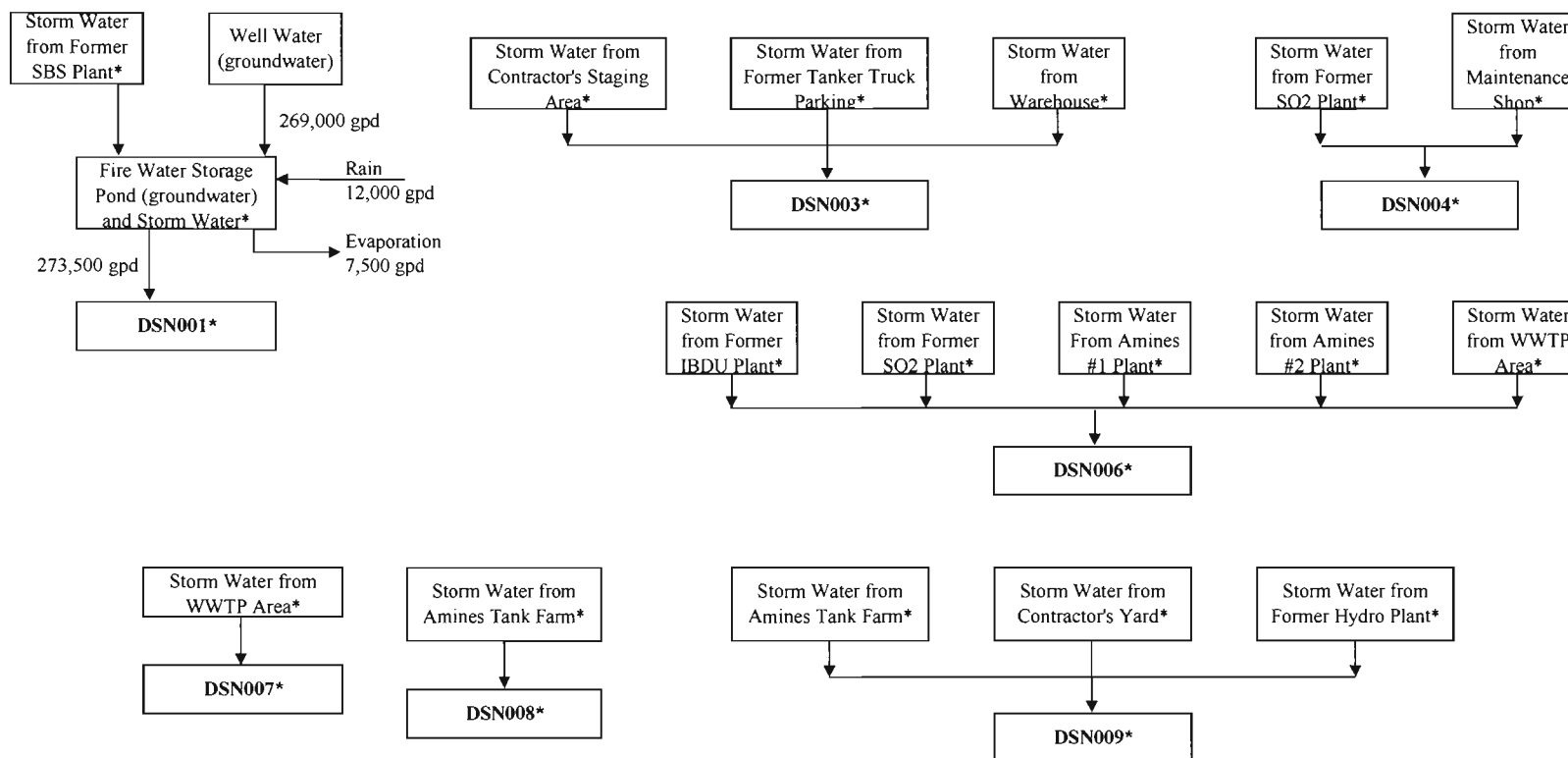
Supplement to ADEM Form 187

Figure 1
Wastewater Process Flow Diagram



Supplement to ADEM Form 187

Figure 1 (continued)
Wastewater Process Flow Diagram



* Indicates various flow rates dependant on rainfall

FORM 1 GENERAL	 U.S. ENVIRONMENTAL PROTECTION AGENCY GENERAL INFORMATION Consolidated Permits Program <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%;">S</td> <td style="width:85%;">ALD056113756</td> <td style="width:5%;">T/A</td> <td style="width:5%;">C</td> </tr> <tr> <td>F</td> <td></td> <td></td> <td>D</td> </tr> </table>	S	ALD056113756	T/A	C	F			D																																														
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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 .																																																								
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6	Axis	AL	36505																																																					

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

A. FIRST										B. SECOND											
C	7	2	8	6	9	(specify)					C	7	(specify)								
15	16	17	18	19	Industrial Organic Chemicals																
C. THIRD										D. FOURTH											
C	7	(specify)								C	7	(specify)									
15	16	17	18	19																	

VIII. OPERATOR INFORMATION

A. NAME										B. Is the name listed in Item VIII-A also the owner?											
C	8	U.S. Amines (Bucks) LLC										<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO									
15	16																				
C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box: if "Other," specify.)										D. PHONE (area code & no.)											
F = FEDERAL S = STATE P = PRIVATE										M = PUBLIC (other than federal or state) O = OTHER (specify)											
P										(specify)											
56										A (251) 829-6601											
15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30						

E. STREET OR P.O. BOX

14086 Highway 43 North																													
26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55

F. CITY OR TOWN

C	B	Axis										G. STATE	H. ZIP CODE	IX. INDIAN LAND																
15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
										AL	36505	Is the facility located on Indian lands? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO																		

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water)										D. PSD (Air Emissions from Proposed Sources)																			
C	T	I	See Supplement Sheet							C	T	I																	
9	N		15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
B. UIC (Underground Injection of Fluids)										E. OTHER (specify)																			
C	T	I								C	T	I	(specify)																
9	U		15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
C. RCRA (Hazardous Wastes)										E. OTHER (specify)																			
C	T	I								C	T	I	(specify)																
9	R		15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	

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)

See Supplement Sheet

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									
Eldon J. Burr, Division Manager																				18 July 2017									
U.S. Amines (Bucks) LLC																													

COMMENTS FOR OFFICIAL USE ONLY

C																														
C																														
15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

Supplement to EPA Form 1

Section X. Existing Environmental Permits

Permit / Registration Type	Description	Permit ID #	Regulatory Agency	Permittee Name
NPDES	Wastewater Stormwater Discharge Permit	AL0003085	ADEM	U.S. Amines (Bucks) LLC
Water	Drinking Water Permit	PSWID0001037	ADEM	U.S. Amines (Bucks) LLC
Air	U.S. Amines Title V Air Permit	503-5010	ADEM	U.S. Amines (Bucks) LLC
RCRA	EPA ID Number	ALD056113756	ADEM	U.S. Amines (Bucks) LLC
Solid Waste	Medical Waste ID Number	G-OTH00382	ADEM	U.S. Amines (Bucks) LLC
Radiation	Radioactive Material License	749 (previous permit)	ADPH	U.S. Amines (Bucks) LLC
Chemical	Domestic Chemical Diversion Control Registration	005706UBW	DOJ	U.S. Amines (Bucks) LLC
Chemical	Domestic Chemical Diversion Control Registration	006135UUZ	DOJ	U.S. Amines (Bucks) LLC
Ethanol	Industrial Alcohol User Permit	SDA-AL-218	ATF	U.S. Amines (Bucks) LLC
Chemical	Alabama State Board of Pharmacy Registration	700110	ABOP	U.S. Amines (Bucks) LLC
Well	Well Water Certification of Use	COU No. 80	ADECA	U.S. Amines (Bucks) LLC
AST	Aboveground Storage Tank Registration	19160 097 016035	ADEM	U.S. Amines (Bucks) LLC

* U.S. Amines is no longer required to have a radiation permit. Therefore the previous permit number was listed for historical purposes.

Supplement to EPA Form 1**Section XII. Nature of Business**

The table below lists manufacturing units at the U.S. Amines facility and includes reaction technology and principle raw materials for each Process.

Summary of Plant Processes		
Unit / Product	Reaction Technology	Principle Raw Materials
Amine 1 & 2 Aliphatic Amines	Continuous (Vapor phase nickel catalyst) (Liquid phase nickel catalyst)	Acetone Ammonia Amyl alcohol Aniline Hydrogen Isopropanol Ethanol Cyclohexanol n-butanol n-propanol Propionitrile Triallylamine Diallylamine
General Plant	N/A	Diesel Fuel Gasoline Sodium Hydroxide Sodium Hypochlorite



Legend

-  Outfall Locations
-  Water Well Locations
-  Approximate Property Boundary



0 1,500 3,000
Feet

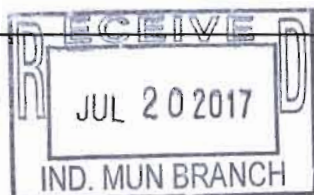
Figure 1: Vicinity Map

U.S. Amines (Bucks) LLC
NPDES Permit Renewal
EPA ID Number: ALD056003756

By: **PAYNE**
ENVIRONMENTAL
SERVICES

Form Approved.
OMB No. 2040-0086.
Approval expires 3-31-98.

Please print or type in the unshaded areas only.

[illegible]

Supplement to EPA Form 2C

Section II. B.

Outfall	Operations Contributing Flow		Treatment
	Operations	Average Flow (gpd)	Description & Codes
002	1) Amines Boiler Blowdown	24,400	All wastewater enters the wastewater treatment system and undergoes the following treatment: <ul style="list-style-type: none"> • Aeration Basin #1 - 3-A • Aeration Basin #2 - 3-B • Secondary Clarifier - 1-U • Digesters - 5-A • Belt Filtration - 5-C • Sludge Disposal to Landfill - 5-Q • Discharge to Mobile River - 4-A
	2) Amines Utility and Washdown Area	7,500	
	3) Amines Cooling Tower Blowdown	22,000	
	6) Amines Process Reaction Water	63,000	
	Laboratory Wastewater	1,500	
	Plant Stormwater	46,500	
	• 4) Amines Tank Farm	Intermittent	
	• Former Sodium Bisulfite Plant	Intermittent	
	• Former Hydro Plant	Intermittent	
	• 5) Amines Railcar and Truck Loading	Intermittent	
	Rain (not from stormwater runoff)	38,000	
	Subtotal	199,100	
	Evaporation	5,000	
	Discharge from DSN002	194,100	

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal? <input type="checkbox"/> YES (complete the following table) <input checked="" type="checkbox"/> NO (go to Section III)								
1. OUTFALL NUMBER (list)	2. OPERATION(s) CONTRIBUTING FLOW (list)	3. FREQUENCY		4. FLOW				
		a. DAYS PER WEEK (specify average)	b. MONTHS PER YEAR (specify average)	a. FLOW RATE (in mgd)		B. TOTAL VOLUME (specify with units)		C. DURATION (in days)
				1. LONG TERM AVERAGE	2. MAXIMUM DAILY	1. LONG TERM AVERAGE	2. MAXIMUM DAILY	
N/A								

III. PRODUCTION	
A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility? <input checked="" type="checkbox"/> YES (complete Item III-B) <input type="checkbox"/> NO (go to Section IV)	
B. Are the limitations in the applicable effluent guideline expressed in terms of production (or other measure of operation)? <input type="checkbox"/> YES (complete Item III-C) <input checked="" type="checkbox"/> NO (go to Section IV)	
C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.	
1. AVERAGE DAILY PRODUCTION	
a. QUANTITY PER DAY	b. UNITS OF MEASURE
c. OPERATION, PRODUCT, MATERIAL, ETC. (specify)	
2. AFFECTED OUTFALLS (list outfall numbers)	
N/A	

IV. IMPROVEMENTS					
A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operations 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. <input type="checkbox"/> YES (complete the following table) <input checked="" type="checkbox"/> NO (go to Item IV-B)					
1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
	a. NO.	b. SOURCE OF DISCHARGE		a. REQUIRED	b. PROJECTED
N/A					

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (or other environmental projects which may affect your discharges) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction. <input type="checkbox"/> MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED	
---	--

EPA I.D. NUMBER (copy from Item 1 of Form 1)
ALD056113756

CONTINUED FROM PAGE 2

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding – Complete one set of tables for each outfall – Annotate the outfall number in the space provided.
NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
Aniline Butylamine Cyclohexane Diethylamine Monoethylamine Triethylamine	Raw Material Amines Plant Product Amines By Product Amines Plant Product Amines Plant Product Amines Plant Intermediate		

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C 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 Item VI-B)

Benzene
Cyanide (Propionitrile)

CONTINUED FROM THE FRONT

VII. 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 (identify the test(s) and describe their purposes below)

☐ NO (go to Section VIII)

Semi-annual acute toxicity tests are performed on DSN 002 per the current NPDES permit requirements. All toxicity tests in the past 3 years have been in compliance with permit limits.

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

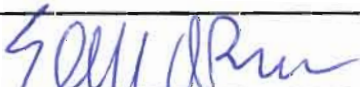
☒ YES (list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)

☐ NO (go to Section IX)

A. NAME	B. ADDRESS	C. TELEPHONE (area code & no.)	D. POLLUTANTS ANALYZED (list)
Test America Inc.	900 Lakeside Drive Mobile, Alabama 36693	251-666-6633	All

IX. 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) Eldon J. Burr, Division Manager, U.S. Amines (Bucks) LLC	B. PHONE NO. (area code & no.) (251) 829-6601
C. SIGNATURE 	D. DATE SIGNED 18 July 2017

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages.
SEE INSTRUCTIONS.

EPA I.D. NUMBER (copy from Item 1 of Form 1)
ALD056113756

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)											OUTFALL NO. DSN002	
PART A –You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.												
1. POLLUTANT	2. EFFLUENT							3. UNITS (specify if blank)		4. INTAKE (optional)		
	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCEN- TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Biochemical Oxygen Demand (BOD)	3.8	7.2	8.7	14	3.5	5.7	156	mg/L	lbs	N/A	N/A	N/A
b. Chemical Oxygen Demand (COD)	28	53.2	248.4	399	48.2	77.9	51	mg/L	lbs	N/A	N/A	N/A
c. Total Organic Carbon (TOC)	3.9	7.4	N/A	N/A	N/A	N/A	1	mg/L	lbs	N/A	N/A	N/A
d. Total Suspended Solids (TSS)	19	36.1	35.5	58	18.5	29.8	156	mg/L	lbs	N/A	N/A	N/A
e. Ammonia (as N)	.44	.84	N/A	N/A	N/A	N/A	1	mg/L	lbs	N/A	N/A	N/A
f. Flow	VALUE 226,800		VALUE 230,700		VALUE 193,000		365	gpd	-	VALUE N/A		N/A
g. Temperature (winter)	VALUE 22.5		VALUE N/A		VALUE N/A		1	°C		VALUE N/A		N/A
h. Temperature (summer)	VALUE N/A		VALUE N/A		VALUE N/A		N/A	°C		VALUE N/A		N/A
i. pH	MINIMUM 7.2	MAXIMUM -	MINIMUM	MAXIMUM			1	STANDARD UNITS				

PART B – Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X"		3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCEN- TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Bromide (24959-67-9)	X		<10	<19					1	mg/L	lbs			
b. Chlorine, Total Residual		X	-											
c. Color		X	-											
d. Fecal Coliform	X		<1.0						1	cfu/0.1L				
e. Fluoride (16984-48-8)		X	-											
f. Nitrate-Nitrite (as N)	X		98	186					1	mg/L	lbs			

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X"		3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic (as N)	X		1.5	2.9					1	mg/L	lbs			
h. Oil and Grease	X		<4.3	<8.2					1	mg/L	lbs			
i. Phosphorus (as P), Total (7723-14-0)	X		<0.10	<0.19					1	mg/L	lbs			
j. Radioactivity														
(1) Alpha, Total		X	-											
(2) Beta, Total		X	-											
(3) Radium, Total		X	-											
(4) Radium 226, Total		X	-											
k. Sulfate (as SO ₄) (14808-79-8)	X		54	102.6					1	mg/L	lbs			
l. Sulfide (as S)		X	-											
m. Sulfite (as SO ₃) (14265-45-3)		X	-											
n. Surfactants		X	-											
o. Aluminum, Total (7429-90-5)		X	-											
p. Barium, Total (7440-39-3)	X		0.036	0.068					1	mg/L	lbs			
q. Boron, Total (7440-42-8)		X	-											
r. Cobalt, Total (7440-48-4)		X	-											
s. Iron, Total (7439-89-6)	X		0.29	0.55					1	mg/L	lbs			
t. Magnesium, Total (7439-95-4)	X		1.1	2.1					1	mg/L	lbs			
u. Molybdenum, Total (7439-98-7)		X	-											
v. Manganese, Total (7439-96-5)		X	-											
w. Tin, Total (7440-31-5)		X	-											
x. Titanium, Total (7440-32-6)		X	-											

EPA I.D. NUMBER (copy from Item 1 of Form 1)

OUTFALL NUMBER

ALD056113756

DSN002

CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT								4. UNITS		5. INTAKE (optional)			
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCEN- TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES		
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS			
																(1) CONCENTRATION	(2) MASS
METALS, CYANIDE, AND TOTAL PHENOLS																	
1M. Antimony, Total (7440-36-0)	X		X	<0.050	<0.095					1	mg/L	lbs					
2M. Arsenic, Total (7440-38-2)	X		X	<0.0050	<0.010					1	mg/L	lbs					
3M. Beryllium, Total (7440-41-7)	X		X	<0.0030	<0.006					1	mg/L	lbs					
4M. Cadmium, Total (7440-43-9)	X		X	<0.0050	<0.010					1	mg/L	lbs					
5M. Chromium, Total (7440-47-3)	X		X	<0.010	<0.019					1	mg/L	lbs					
6M. Copper, Total (7440-50-8)	X		X	<0.010	<0.019					1	mg/L	lbs					
7M. Lead, Total (7439-92-1)	X	X		<0.0050	<0.010					1	mg/L	lbs					
8M. Mercury, Total (7439-97-6)	X		X	<0.20	<0.000					1	ug/L	lbs					
9M. Nickel, Total (7440-02-0)	X	X		0.25	0.48					1	mg/L	lbs					
10M. Selenium, Total (7782-49-2)	X		X	<0.010	<0.019					1	mg/L	lbs					
11M. Silver, Total (7440-22-4)	X		X	<0.0050	<0.010					1	mg/L	lbs					
12M. Thallium, Total (7440-28-0)	X		X	<0.010	<0.019					1	mg/L	lbs					
13M. Zinc, Total (7440-66-6)	X	X		0.044	0.084					1	mg/L	lbs					
14M. Cyanide, Total (57-12-5)	X		X	<0.0050	<0.010					1	mg/L	lbs					
15M. Phenols, Total	X		X	<0.010	<0.019					1	mg/L	lbs					
DIOXIN																	
2,3,7,8-Tetra-chlorodibenzo-P-Dioxin (1764-01-6)	X		X	DESCRIBE RESULTS													

CONTINUED FROM THE FRONT

CONTINUED FROM THE FRONT																
1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT								4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES	
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS		
GC/MS FRACTION – VOLATILE COMPOUNDS																
1V. Accrolein (107-02-8)	X		X	<20	<0.038					1	ug/L	lbs				
2V. Acrylonitrile (107-13-1)	X		X	<10	<0.019					1	ug/L	lbs				
3V. Benzene (71-43-2)	X		X	<1.0	<0.002					1	ug/L	lbs				
4V. Bis (Chloro- methyl) Ether (542-88-1)	X		X	<5.0	<0.010					1	ug/L	lbs				
5V. Bromoform (75-25-2)	X		X	<5.0	<0.010					1	ug/L	lbs				
6V. Carbon Tetrachloride (56-23-5)	X		X	<1.0	<0.002					1	ug/L	lbs				
7V. Chlorobenzene (108-90-7)	X		X	<1.0	<0.002					1	ug/L	lbs				
8V. Chlorodi- bromomethane (124-48-1)	X		X	<1.0	<0.002					1	ug/L	lbs				
9V. Chloroethane (75-00-3)	X		X	<1.0	<0.002					1	ug/L	lbs				
10V. 2-Chloro- ethylvinyl Ether (110-75-8)	X		X	<5.0	<0.010					1	ug/L	lbs				
11V. Chloroform (67-66-3)	X		X	<1.0	<0.002					1	ug/L	lbs				
12V. Dichloro- bromomethane (75-27-4)	X		X	<1.0	<0.002					1	ug/L	lbs				
13V. Dichloro- difluoromethane (75-71-8)	X		X	<1.0	<0.002					1	ug/L	lbs				
14V. 1,1-Dichloro- ethane (75-34-3)	X		X	<1.0	<0.002					1	ug/L	lbs				
15V. 1,2-Dichloro- ethane (107-06-2)	X		X	<1.0	<0.002					1	ug/L	lbs				
16V. 1,1-Dichloro- ethylene (75-35-4)	X		X	<1.0	<0.002					1	ug/L	lbs				
17V. 1,2-Dichloro- propane (78-87-5)	X		X	<1.0	<0.002					1	ug/L	lbs				
18V. 1,3-Dichloro- propylene (542-75-6)	X		X	<2.0	<0.004					1	ug/L	lbs				
19V. Ethylbenzene (100-41-4)	X		X	<1.0	<0.002					1	ug/L	lbs				
20V. Methyl Bromide (74-83-9)	X		X	<1.0	<0.002					1	ug/L	lbs				
21V. Methyl Chloride (74-87-3)	X		X	<1.0	<0.002					1	ug/L	lbs				

CONTINUED FROM PAGE V-4

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT							4. UNITS			5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCEN- TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES	
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS		
GC/MS FRACTION – VOLATILE COMPOUNDS (continued)																
22V. Methylene Chloride (75-09-2)	X		X	<5.0	<0.010					1	ug/L	lbs				
23V. 1,1,2,2-Tetrachloroethane (79-34-5)	X		X	<1.0	<0.002					1	ug/L	lbs				
24V. Tetrachloroethylene (127-18-4)	X		X	<1.0	<0.002					1	ug/L	lbs				
25V. Toluene (108-88-3)	X		X	<1.0	<0.002					1	ug/L	lbs				
26V. 1,2-Trans-Dichloroethylene (156-60-5)	X		X	<1.0	<0.002					1	ug/L	lbs				
27V. 1,1,1-Trichloroethane (71-55-6)	X		X	<1.0	<0.002					1	ug/L	lbs				
28V. 1,1,2-Trichloroethane (79-00-5)	X		X	<5.0	<0.010					1	ug/L	lbs				
29V Trichloroethylene (79-01-6)	X		X	<1.0	<0.002					1	ug/L	lbs				
30V. Trichlorofluoromethane (75-69-4)	X		X	<1.0	<0.002					1	ug/L	lbs				
31V. Vinyl Chloride (75-01-4)	X		X	<1.0	<0.002					1	ug/L	lbs				
GC/MS FRACTION – ACID COMPOUNDS																
1A. 2-Chlorophenol (95-57-8)	X		X	<9.6	<0.018					1	ug/L	lbs				
2A. 2,4-Dichlorophenol (120-83-2)	X		X	<9.6	<0.018					1	ug/L	lbs				
3A. 2,4-Dimethylphenol (105-67-9)	X		X	<9.6	<0.018					1	ug/L	lbs				
4A. 4,6-Dinitro-O-Cresol (534-52-1)	X		X	<9.6	<0.018					1	ug/L	lbs				
5A. 2,4-Dinitrophenol (51-28-5)	X		X	<29	<0.055					1	ug/L	lbs				
6A. 2-Nitrophenol (88-75-5)	X		X	<9.6	<0.018					1	ug/L	lbs				
7A. 4-Nitrophenol (100-02-7)	X		X	<9.6	<0.018					1	ug/L	lbs				
8A. P-Chloro-M-Cresol (59-50-7)	X		X	<9.6	<0.018					1	ug/L	lbs				
9A. Pentachlorophenol (87-86-5)	X		X	<19	<0.036					1	ug/L	lbs				
10A. Phenol (108-95-2)	X		X	<9.6	<0.018					1	ug/L	lbs				
11A. 2,4,6-Trichlorophenol (88-05-2)	X		X	<9.6	<0.018					1	ug/L	lbs				

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT								4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCEN- TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES	
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS		
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS																
1B. Acenaphthene (83-32-9)	X		X	<9.6	<0.018					1	ug/L	lbs				
2B. Acenaphthylene (208-96-8)	X		X	<9.6	<0.018					1	ug/L	lbs				
3B. Anthracene (120-12-7)	X		X	<9.6	<0.018					1	ug/L	lbs				
4B. Benzidine (92-87-5)	X		X	<24	<0.046					1	ug/L	lbs				
5B. Benzo (a) Anthracene (56-55-3)	X		X	<9.6	<0.018					1	ug/L	lbs				
6B. Benzo (a) Pyrene (50-32-8)	X		X	<9.6	<0.018					1	ug/L	lbs				
7B. 3,4-Benzo- fluoranthene (205-99-2)	X		X	<9.6	<0.018					1	ug/L	lbs				
8B. Benzo (ghi) Perylene (191-24-2)	X		X	<9.6	<0.018					1	ug/L	lbs				
9B. Benzo (k) Fluoranthene (207-08-9)	X		X	<9.6	<0.018					1	ug/L	lbs				
10B. Bis (2-Chloro- ethoxy) Methane (111-91-1)	X		X	<9.6	<0.018					1	ug/L	lbs				
11B. Bis (2-Chloro- ethyl) Ether (111-44-4)	X		X	<9.6	<0.018					1	ug/L	lbs				
12B. Bis (2- Chloroisopropyl) Ether (102-80-1)	X		X	<9.6	<0.018					1	ug/L	lbs				
13B. Bis (2-Ethyl- hexyl) Phthalate (117-81-7)	X		X	<9.6	<0.018					1	ug/L	lbs				
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	X		X	<9.6	<0.018					1	ug/L	lbs				
15B. Butyl Benzyl Phthalate (85-68-7)	X		X	<9.6	<0.018					1	ug/L	lbs				
16B. 2-Chloro- naphthalene (91-58-7)	X		X	<9.6	<0.018					1	ug/L	lbs				
17B. 4-Chloro- phenyl Phenyl Ether (7005-72-3)	X		X	<9.6	<0.018					1	ug/L	lbs				
18B. Chrysene (218-01-9)	X		X	<9.6	<0.018					1	ug/L	lbs				
19B. Dibenzo (a,h) Anthracene (53-70-3)	X		X	<9.6	<0.018					1	ug/L	lbs				
20B. 1,2-Dichloro- benzene (95-50-1)	X		X	<9.6	<0.018					1	ug/L	lbs				
21B. 1,3-Di-chloro- benzene (541-73-1)	X		X	<9.6	<0.018					1	ug/L	lbs				

CONTINUED FROM PAGE V-6

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT								4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCEN- TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES	
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS		
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (continued)																
22B. 1,4-Dichloro- benzene (106-46-7)	X		X	<9.6	<0.018					1	ug/L	lbs				
23B. 3,3-Dichloro- benzidine (91-94-1)	X		X	<9.6	<0.018					1	ug/L	lbs				
24B. Diethyl Phthalate (84-66-2)	X		X	<9.6	<0.018					1	ug/L	lbs				
25B. Dimethyl Phthalate (131-11-3)	X		X	<9.6	<0.018					1	ug/L	lbs				
26B. Di-N-Butyl Phthalate (84-74-2)	X		X	<9.6	<0.018					1	ug/L	lbs				
27B. 2,4-Dinitro- toluene (121-14-2)	X		X	<29	<0.055					1	ug/L	lbs				
28B. 2,6-Dinitro- toluene (606-20-2)	X		X	<9.6	<0.018					1	ug/L	lbs				
29B. Di-N-Octyl Phthalate (117-84-0)	X		X	<9.6	<0.018					1	ug/L	lbs				
30B. 1,2-Diphenyl- hydrazine (as Azo- benzene) (122-66-7)	X		X	<9.6	<0.018					1	ug/L	lbs				
31B. Fluoranthene (206-44-0)	X		X	<9.6	<0.018					1	ug/L	lbs				
32B. Fluorene (86-73-7)	X		X	<9.6	<0.018					1	ug/L	lbs				
33B. Hexachloro- benzene (118-74-1)	X		X	<9.6	<0.018					1	ug/L	lbs				
34B. Hexachloro- butadiene (87-68-3)	X		X	<9.6	<0.018					1	ug/L	lbs				
35B. Hexachloro- cyclopentadiene (77-47-4)	X		X	<19	<0.036					1	ug/L	lbs				
36B Hexachloro- ethane (67-72-1)	X		X	<9.6	<0.018					1	ug/L	lbs				
37B. Indeno (1,2,3-cd) Pyrene (193-39-5)	X		X	<9.6	<0.018					1	ug/L	lbs				
38B. Isophorone (78-59-1)	X		X	<9.6	<0.018					1	ug/L	lbs				
39B. Naphthalene (91-20-3)	X		X	<9.6	<0.018					1	ug/L	lbs				
40B. Nitrobenzene (98-95-3)	X		X	<9.6	<0.018					1	ug/L	lbs				
41B. N-Nitro- sodimethylamine (62-75-9)	X		X	<9.6	<0.018					1	ug/L	lbs				
42B. N-Nitrosodi- N-Propylamine (621-64-7)	X		X	<9.6	<0.018					1	ug/L	lbs				

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCEN- TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (continued)															
43B. N-Nitro-sodiphenylamine (86-30-6)	X		X	<9.6	<0.018					1	ug/L	lbs			
44B. Phenanthrene (85-01-8)	X		X	<9.6	<0.018					1	ug/L	lbs			
45B. Pyrene (129-00-0)	X		X	<9.6	<0.018					1	ug/L	lbs			
46B. 1,2,4-Trì-chlorobenzene (120-82-1)	X		X	<9.6	<0.018					1	ug/L	lbs			
GC/MS FRACTION – PESTICIDES															
1P. Aldrin (309-00-2)	X		X	<0.019	<4.E-5					1	ug/L	lbs			
2P. α-BHC (319-84-6)	X		X	<0.019	<4.E-5					1	ug/L	lbs			
3P. β-BHC (319-85-7)	X		X	<0.019	<4.E-5					1	ug/L	lbs			
4P. γ-BHC (58-89-9)	X		X	<0.019	<4.E-5					1	ug/L	lbs			
5P. δ-BHC (319-86-8)	X		X	<0.019	<4.E-5					1	ug/L	lbs			
6P. Chlordane (57-74-9)	X		X	<0.019	<4.E-5					1	ug/L	lbs			
7P. 4,4'-DDT (50-29-3)	X		X	<0.019	<4.E-5					1	ug/L	lbs			
8P. 4,4'-DDE (72-55-9)	X		X	<0.019	<4.E-5					1	ug/L	lbs			
9P. 4,4'-DDD (72-54-8)	X		X	<0.019	<4.E-5					1	ug/L	lbs			
10P. Dieldrin (60-57-1)	X		X	<0.019	<4.E-5					1	ug/L	lbs			
11P. α-Enosulfan (115-29-7)	X		X	<0.019	<4.E-5					1	ug/L	lbs			
12P. β-Endosulfan (115-29-7)	X			<0.019	<4.E-5					1	ug/L	lbs			
13P. Endosulfan Sulfate (1031-07-8)	X		X	<0.019	<4.E-5					1	ug/L	lbs			
14P. Endrin (72-20-8)	X		X	<0.019	<4.E-5					1	ug/L	lbs			
15P. Endrin Aldehyde (7421-93-4)	X		X	<0.019	<4.E-5					1	ug/L	lbs			
16P. Heptachlor (76-44-8)	X		X	<0.019	<4.E-5					1	ug/L	lbs			

EPA I.D. NUMBER (copy from Item 1 of Form 1)

OUTFALL NUMBER

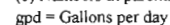
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DSN002

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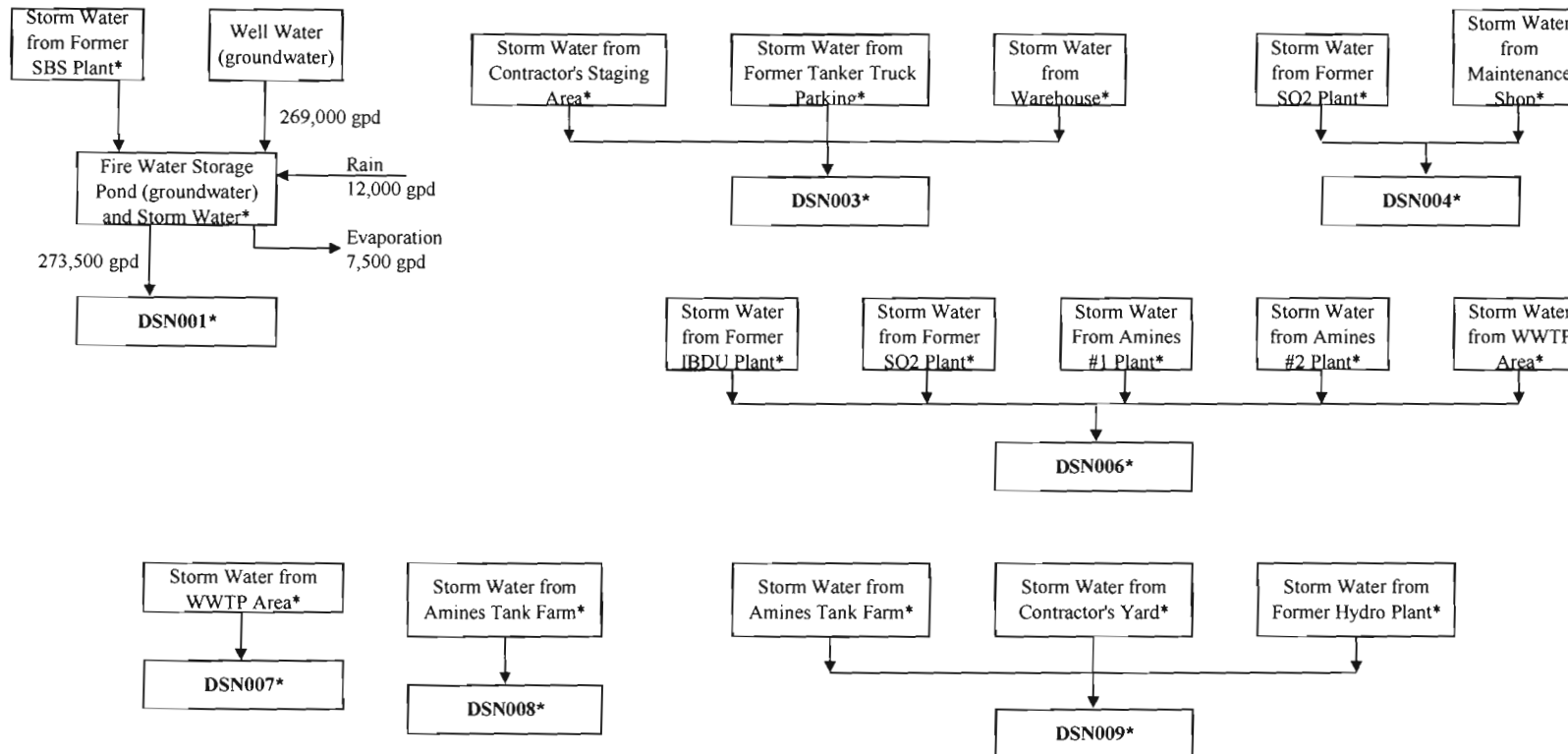
1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT								4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES	
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS		
GC/MS FRACTION – PESTICIDES (continued)																
17P. Heptachlor Epoxide (1024-57-3)	X		X	<0.019	<4.E-5					1	ug/L	lbs				
18P. PCB-1242 (53469-21-9)	X		X	<0.46	<0.001					1	ug/L	lbs				
19P. PCB-1254 (11097-69-1)	X		X	<0.46	<0.001					1	ug/L	lbs				
20P. PCB-1221 (11104-28-2)	X		X	<0.46	<0.001					1	ug/L	lbs				
21P. PCB-1232 (11141-16-5)	X		X	<0.46	<0.001					1	ug/L	lbs				
22P. PCB-1248 (12672-29-6)	X		X	<0.46	<0.001					1	ug/L	lbs				
23P. PCB-1260 (11096-82-5)	X		X	<0.46	<0.001					1	ug/L	lbs				
24P. PCB-1016 (12674-11-2)	X		X	<0.46	<0.001					1	ug/L	lbs				
25P. Toxaphene (8001-35-2)	X		X	<0.46	<0.001					1	ug/L	lbs				

Figure 1
Wastewater Process Flow Diagram



Supplement to EPA Form 2C

Figure 1 (continued)
Wastewater Process Flow Diagram



* Indicates various flow rates dependant on rainfall

**FORM
2F
NPDES**



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

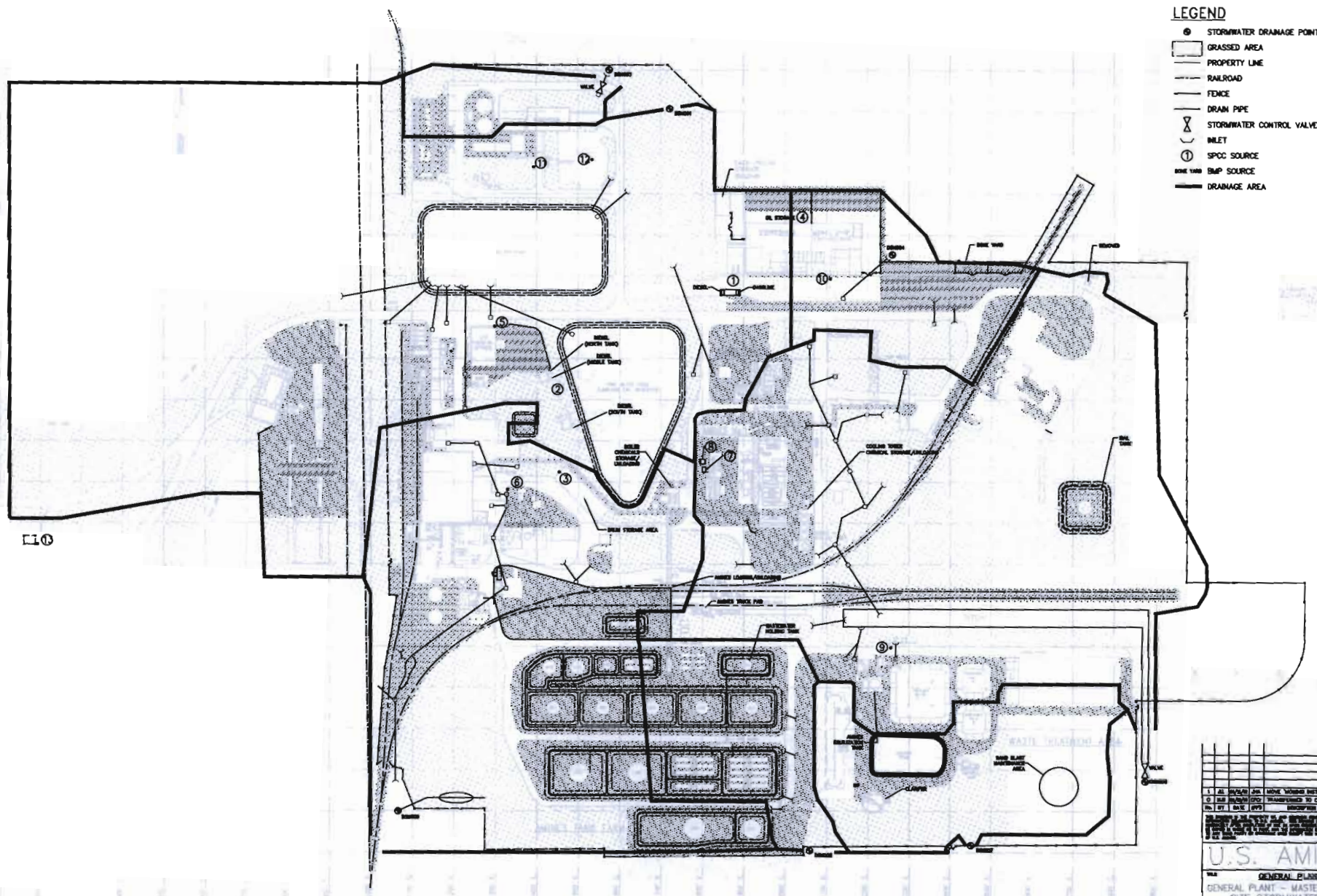
Public reporting burden for this application is estimated to average 28.6 hours per application, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the 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, 1200 Pennsylvania Avenue, NW, Washington, DC 20460, or Director, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

A. Outfall Number (list)	B. Latitude			C. Longitude			D. Receiving Water (name)
DSN 001	30°	59'	10"	88°	01'	10"	Unnamed tributary of Cold Creek
DSN 003	30°	59'	14"	88°	01'	16"	Unnamed tributary of Cold Creek
DSN 004	30°	58'	59"	88°	01'	10"	Unnamed tributary of Cold Creek
DSN 006	30°	59'	00"	88°	01'	03"	Cold Creek
DSN 007	30°	58'	59"	88°	01'	09"	Cold Creek
DSN 008	30°	58'	59"	88°	01'	13"	Cold Creek
DSN 009	30°	58'	58"	88°	01'	21"	Cold Creek

[illegible]

III. Site Drainage Map

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LEGEND

- STORMWATER DRAINAGE POINT
- ▨ GRASSED AREA
- PROPERTY LINE
- RAILROAD
- FENCE
- DRAIN PIPE
- ⌵ STORMWATER CONTROL VALVE
- ⌵ INLET
- ① SPOC SOURCE
- ② BMP SOURCE
- DRAINAGE AREA

LOCATIONS ARE APPROXIMATE

CAD FILE: 4110XXXX.dwg
DATE: 04/18/2012

U.S. AMINES	
GENERAL PLANT - MASTER SITE PLAN SITE STORMWATER MAP	
DATE	150 314 1000000
BY	
CHECKED	
APPROVED	

Continued from the Front

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	15.48 acres	38.7 acres	007	1.16 acres	5.81 acres
003	0.94 acres	1.57 acres	008	3.13 acres	4.17 acres
004	2.42 acres	4.03 acres	009	8.55 acres	17.1 acres
006	8.87 acres	22.17 acres			

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.

See Supplement Sheet for a table of the significant materials currently stored at the U.S. Amines facility. Most significant materials are stored under over or in areas that drain to the wastewater treatment system.

Pesticides and herbicides are applied as needed at the facility. These are also listed on the Supplement Sheet. No soil containers or fertilizers are used at the U.S. Amines facility.

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	Some stormwater and well water is collected in ponds before being discharged through DSN001.	1-U
003	Operations conducted under roof, secondary containment used for tanks, discharge can be closed at valve.	4-A
004	Maintenance under roof, secondary containment used for vehicle fuel storage area.	4-A
006	Discharge pipe is equipped with a valve that can be closed to stop discharge of stormwater.	4-A
007	None	None
008	Secondary containment has been provided for tanks.	4-A
009	Secondary containment has been provided for individual tanks. Process areas are curbed.	4-A
ALL	Best Management Practices Plan, routine inspections, Spill Prevention Control and Countermeasures Plan	

V. Nonstormwater 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 discharged from these outfall(s) are identified in either an accompanying Form 2C or Form 2E application for the outfall. – **Form 2C is attached.**

Name and Official Title (type or print)	Signature	Date Signed
Samantha R Johnston, Environmental Engineer	<i>Samantha R. Johnston</i>	7/13/2017

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.

Visual inspection of all outfalls

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.

There have been no significant leaks or spills of toxic or hazardous pollutants at the facility in the last three years.

Supplement to EPA Form 2F

Section IV. B. Significant materials currently stored at the U.S. Amines facility.

Drainage Basin	Location	Source	Estimated Total Quantity	Containment
DSN001	Fire Water Pond	2 Diesel Tanks	500 gallons each	Tank Dike
		Drum storage area	100 55-gallon drums	Dike
DSN001	Storeroom	2 Diesel Tanks	700 gallons	Tank Dike
		Gasoline Tank	500 gallons	
		Oil Storage	50 55-gallon drums	Under cover
		Equipment Storage	N/A	N/A
DSN004	Boneyard	Equipment Storage	N/A	N/A
DSN004	Former IB Nitrogen	Unused Loading / Unloading Area	190,000 lbs	Discharge to waste treatment plant
DSN006	Former IB Nitrogen	Unused Tank	240,000 gallons	Earthen Dike
DSN006	Amines	Cooling Tower Chemical Storage / Unloading	1,000 gallons	Dike
		Amines Loading / Unloading Tank Truck Area	40,000 lbs	Discharge to waste treatment plant
DSN006	Waste Treatment Area	Chemical Storage	4 55 gallons	Discharge to waste treatment plant
		Sandblast / Maintenance Area	N/A	None
DSN008 / 009	Amines	Amines Tank Farm	500,000 gallons +	Tank dikes, Discharge to waste treatment plant
DSN009	Amines	Boiler Chemical Storage / Unloading	500 gallons	Dike
		Amines Loading / Unloading Rail Car Area	190,000 lbs	Discharge to waste treatment plant

VII. Discharge Information

A, B, C, & D: See instructions before proceeding. Complete one set of tables for each outfall. Annotate the outfall number in the space provided.
Table VII-A, VII-B, VII-C are included on separate sheets numbers 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)

Aniline
Butylamine
Cyclohexane
Diethylamine
Monoethylamine
Triethylamine

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)

Toxicity is tested semi-annually on the process wastewater outfall DSN002. All toxicity tests in the past 3 years have been in compliance with permit limitations.

IX. Contract Analysis Information

Were any of the analyses reported in Item VII performed by a contract 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
Test America Mobile	900 Lakeside Drive Mobile, AL 36693	251-666-6633	All, except pH

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)

B. Area Code and Phone No.

Eldon J. Burr, Division Manager, U.S. Amines (Bucks) LLC

251-829-6601

C. Signature

D. Date Signed

18 July 2017

Supplement to EPA Form 2F**Section IV. B. (cont.) Pesticides and herbicides used are listed in the table below:**

Product Name	Chemical Constituent	CAS Number
Alligar Imazapyr 2 SL	Isopropylamine Salt of Imazapyr	81510-83-0
Alligar SFM 75	Sulfometuron Methyl	7422-97-2
Esplanade 200 SC	Indaziflam 1,2-Propanediol	950782-86-2 57-55-6
Glyphosate 4 Plus	Glyphosate Isopropylamine salt	38641-94-0
Method 240 SL Herbicide	Aminocyclopyrachlor	858956-08-8
CAS = Chemical Abstract Service		

Part A – You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

Part B – List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

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Continued from the Front

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

[illegible]

Part D – Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event (gallons/minute or specify units)	6. Total flow from rain event (gallons or specify units)
2/21/2017	665	0.71	72.5	See Supplemental Sheet for each outfall	See Supplemental Sheet for each outfall

7. Provide a description of the method of flow measurement or estimate.

Total flow from rain event was estimated based on "Rational Method"

$$Q = C \cdot i \cdot A$$

Q: flow volume

C. runoff coefficient

catchment area

rainfall intensity

Part A - Outfall DSN001

Pollutant	Maximum Values		Average Values		Units	Number of Storm Events Sampled	Sources of Pollutants
	Grab	Composite	Grab	Composite			
Oil and Grease	<4.7	-			mg/L	1	
Biological Oxygen Demand (BOD)	2.2	<2.0			mg/L	1	
Chemical Oxygen Demand (COD)	18	12			mg/L	1	
Total Suspended Solids (TSS)	<5.0	7.0			mg/L	1	
Total Nitrogen	<0.50	<0.50			mg/L	1	
Total Phosphorus	<0.10	<0.10			mg/L	1	
pH	6.4	-			SU	1	

Part B - Outfall DSN001

Pollutant	CAS number	Maximum Values		Average Values		Units	Number of Storm Events Sampled	Sources of Pollutants
		Grab	Composite	Grab	Composite			
Total Chlorides	16887-00-6	3.5	3.5			mg/L	1	
Total Dissolved Solids (TDS)	N/A	30	28			mg/L	1	
Total Sulfates	14808-79-8	<5.0	<5.0			mg/L	1	
Total Chromium	7440-47-3	<0.010	<0.010			mg/L	1	
Total Copper	7440-50-8	<0.010	<0.010			mg/L	1	
Total Cyanide	57-12-5	<0.0050	<0.0050			mg/L	1	
Total Lead	7439-92-1	<0.0050	<0.0050			mg/L	1	
Total Nickel	7440-02-0	<0.0050	<0.0050			mg/L	1	
Total Zinc	7440-66-6	<0.0050	0.020			mg/L	1	
Nitrate, Nitrite	N/A	<0.050	<0.050			mg/L	1	
Total Kjeldahl Nitrogen	N/A	<0.50	<0.50			mg/L	1	
Acenaphthene	83-32-9	<9.3	<9.5			ug/L	1	
Acenaphthylene	208-96-8	<9.3	<9.5			ug/L	1	
Acrylonitrile	107-13-1	<10	<10			ug/L	1	
Anthracene	120-12-7	<9.3	<9.5			ug/L	1	
Benzene	71-43-2	<1.0	<1.0			ug/L	1	
Benzo Anthracene	56-55-3	<9.3	<9.5			ug/L	1	
3,4 Benzofluorathene	205-99-2	<9.3	<9.5			ug/L	1	
Benzo [k] Fluoranthene	207-08-9	<9.3	<9.5			ug/L	1	
Benzo [a] Pyrene	50-32-8	<9.3	<9.5			ug/L	1	
Bis(2-ethylhexyl) Phthalate	117-81-7	<9.3	<9.5			ug/L	1	
Carbon Tetrachloride	56-23-5	<1.0	<1.0			ug/L	1	
Chlorobenzene	108-90-7	<1.0	<1.0			ug/L	1	
Chloroethane	75-00-3	<1.0	<1.0			ug/L	1	
Chloroform	67-66-3	<1.0	<1.0			ug/L	1	
2-Chlorophenol	95-57-8	<9.3	<9.5			ug/L	1	
Chrysene	218-01-9	<9.3	<9.5			ug/L	1	
Di-N-Butyl Phthalate	84-74-2	<9.3	<9.5			ug/L	1	
1,2 Dichlorobenzene	95-50-1	<1.0	<1.0			ug/L	1	
1,3 Dichlorobenzene	541-73-1	<1.0	<1.0			ug/L	1	
1,4 Dichlorobenzene	106-46-7	<1.0	<1.0			ug/L	1	

1,1 Dichloroethane	75-34-3	<1.0	<1.0			ug/L	1	
1,2 Dichloroethane	107-06-2	<1.0	<1.0			ug/L	1	
1,1 Dichloroethylene	75-35-4	<1.0	<1.0			ug/L	1	
1,2 Trans-Dichloroethylene	156-60-5	<1.0	<1.0			ug/L	1	
2,4 Dichlorophenol	120-83-2	<9.3	<9.5			ug/L	1	
1,2 Dichloropropane	78-87-5	<1.0	<1.0			ug/L	1	
1,3 Dichloropropylene	542-75-6	<2.0	<2.0			ug/L	1	
Diethyl Phthalate	84-66-2	<9.3	<9.5			ug/L	1	
2,4 Dimethylphenol	105-67-9	<9.3	<9.5			ug/L	1	
Dimethyl Phthalate	131-11-3	<9.3	<9.5			ug/L	1	
4,6 Dinitro-0-Cresol	534-52-1	<9.3	<9.5			ug/L	1	
2,4 Dinitrophenol	51-28-5	<28	<28			ug/L	1	
2,4 Dinitrotoluene	121-14-2	<9.3	<9.5			ug/L	1	
2,6 Dinitrotoluene	606-20-2	<9.3	<9.5			ug/L	1	
Ethyl benzene	100-41-4	<1.0	<1.0			ug/L	1	
Fluoranthene	206-44-0	<9.3	<9.5			ug/L	1	
Fluorene	86-73-7	<9.3	<9.5			ug/L	1	
Hexachlorobenzene	118-74-1	<9.3	<9.5			ug/L	1	
Hexachlorobutadiene	87-68-3	<9.3	<9.5			ug/L	1	
Hexachloroethane	67-72-1	<9.3	<9.5			ug/L	1	
Methyl Chloride	74-87-3	<1.0	<1.0			ug/L	1	
Methylene Chloride	75-09-2	<5.0	<5.0			ug/L	1	
Naphthalene	91-20-3	<9.3	<9.5			ug/L	1	
Nitrobenzene	98-95-3	<9.3	<9.5			ug/L	1	
2-Nitrophenol	88-75-5	<9.3	<9.5			ug/L	1	
4-Nitrophenol	100-02-7	<9.3	<9.5			ug/L	1	
Phenanthrene	85-01-8	<9.3	<9.5			ug/L	1	
Phenol	108-95-2	<9.3	<9.5			ug/L	1	
Pyrene	139-00-0	<9.3	<9.5			ug/L	1	
Tetrachloroethylene	127-18-4	<1.0	<1.0			ug/L	1	
Toluene	108-88-3	<1.0	<1.0			ug/L	1	
1,2,4 Trichlorobenzene	120-82-1	<9.3	<9.5			ug/L	1	
1,1,1 Trichloroethane	71-55-6	<1.0	<1.0			ug/L	1	
1,1,2 Trichloroethane	79-00-5	<5.0	<5.0			ug/L	1	
Trichloroethylene	79-01-6	<1.0	<1.0			ug/L	1	
Vinyl Chloride	75-01-4	<1.0	<1.0			ug/L	1	

Part C - Outfall DSN001

None

Part D - Outfall DSN001

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total Rainfall During Storm Event (in inches)	4. Number of Hours Between the Beginning of Storm Measured and End of the Previous Measurable Rain Event	5. Maximum Flow Rate During Rain Event (gallons/minute or specify units)	6. Total Flow from Rain Event (gallons or specify units)
2/21/2017	665	0.71	72.5	1,162 gpm	0.1719 MGD

Part A - Outfall DSN003

Pollutant	Maximum Values		Average Values		Units	Number of Storm Events Sampled	Sources of Pollutants
	Grab	Composite	Grab	Composite			
Oil and Grease	<4.7	-			mg/L	1	
Biological Oxygen Demand (BOD)	3.1	<2.0			mg/L	1	
Chemical Oxygen Demand (COD)	23	24			mg/L	1	
Total Suspended Solids (TSS)	9.0	<5.0			mg/L	1	
Total Nitrogen	1.4	0.7			mg/L	1	
Total Phosphorus	<0.10	<0.10			mg/L	1	
pH	7.0	-			SU	1	

Part B - Outfall DSN003

Pollutant	CAS number	Maximum Values		Average Values		Units	Number of Storm Events Sampled	Sources of Pollutants
		Grab	Composite	Grab	Composite			
Total Chlorides	16887-00-6	<2.0	<2.0			mg/L	1	
Total Dissolved Solids (TDS)	N/A	42	82			mg/L	1	
Total Sulfates	14808-79-8	8.2	9.8			mg/L	1	
Total Chromium	7440-47-3	<0.010	<0.010			mg/L	1	
Total Copper	7440-50-8	<0.010	<0.010			mg/L	1	
Total Cyanide	57-12-5	<0.0050	<0.0050			mg/L	1	
Total Lead	7439-92-1	<0.0050	<0.0050			mg/L	1	
Total Nickel	0.021	0.021	0.030			mg/L	1	
Total Zinc	0.053	0.053	0.041			mg/L	1	
Nitrate, Nitrite	N/A	0.59	0.7			mg/L	1	
Total Kjeldahl Nitrogen	N/A	0.80	<0.50			mg/L	1	
Acenaphthene	83-32-9	<9.3	<9.5			ug/L	1	
Acenaphthylene	208-96-8	<9.3	<9.5			ug/L	1	
Acrylonitrile	107-13-1	<10	<10			ug/L	1	
Anthracene	120-12-7	<9.3	<9.5			ug/L	1	
Benzene	71-43-2	<1.0	<1.0			ug/L	1	
Benzo Anthracene	56-55-3	<9.3	<9.5			ug/L	1	
3,4 Benzofluorathene	205-99-2	<9.3	<9.5			ug/L	1	
Benzo [k] Fluoranthene	207-08-9	<9.3	<9.5			ug/L	1	
Benzo [a] Pyrene	50-32-8	<9.3	<9.5			ug/L	1	
Bis(2-ethylhexyl) Phthalate	117-81-7	<9.3	<9.5			ug/L	1	
Carbon Tetrachloride	56-23-5	<1.0	<1.0			ug/L	1	
Chlorobenzene	108-90-7	<1.0	<1.0			ug/L	1	
Chloroethane	75-00-3	<1.0	<1.0			ug/L	1	
Chloroform	67-66-3	<1.0	<1.0			ug/L	1	
2-Chlorophenol	95-57-8	<9.3	<9.5			ug/L	1	
Chrysene	218-01-9	<9.3	<9.5			ug/L	1	
Di-N-Butyl Phthalate	84-74-2	<9.3	<9.5			ug/L	1	
1,2 Dichlorobenzene	95-50-1	<1.0	<1.0			ug/L	1	
1,3 Dichlorobenzene	541-73-1	<1.0	<1.0			ug/L	1	
1,4 Dichlorobenzene	106-46-7	<1.0	<1.0			ug/L	1	

1,1 Dichloroethane	75-34-3	<1.0	<1.0		ug/L	1	
1,2 Dichloroethane	107-06-2	<1.0	<1.0		ug/L	1	
1,1 Dichloroethylene	75-35-4	<1.0	<1.0		ug/L	1	
1,2 Trans-Dichloroethylene	156-60-5	<1.0	<1.0		ug/L	1	
2,4 Dichlorophenol	120-83-2	<9.3	<9.5		ug/L	1	
1,2 Dichloropropane	78-87-5	<1.0	<1.0		ug/L	1	
1,3 Dichloropropylene	542-75-6	<2.0	<2.0		ug/L	1	
Diethyl Phthalate	84-66-2	<9.3	<9.5		ug/L	1	
2,4 Dimethylphenol	105-67-9	<9.3	<9.5		ug/L	1	
Dimethyl Phthalate	131-11-3	<9.3	<9.5		ug/L	1	
4,6 Dinitro-0-Cresol	534-52-1	<9.3	<9.5		ug/L	1	
2,4 Dinitrophenol	51-28-5	<28	<28		ug/L	1	
2,4 Dinitrotoluene	121-14-2	<9.3	<9.5		ug/L	1	
2,6 Dinitrotoluene	606-20-2	<9.3	<9.5		ug/L	1	
Ethyl benzene	100-41-4	<1.0	<1.0		ug/L	1	
Fluoranthene	206-44-0	<9.3	<9.5		ug/L	1	
Fluorene	86-73-7	<9.3	<9.5		ug/L	1	
Hexachlorobenzene	118-74-1	<9.3	<9.5		ug/L	1	
Hexachlorobutadiene	87-68-3	<9.3	<9.5		ug/L	1	
Hexachloroethane	67-72-1	<9.3	<9.5		ug/L	1	
Methyl Chloride	74-87-3	<1.0	<1.0		ug/L	1	
Methylene Chloride	75-09-2	<5.0	<5.0		ug/L	1	
Naphthalene	91-20-3	<9.3	<9.5		ug/L	1	
Nitrobenzene	98-95-3	<9.3	<9.5		ug/L	1	
2-Nitrophenol	88-75-5	<9.3	<9.5		ug/L	1	
4-Nitrophenol	100-02-7	<9.3	<9.5		ug/L	1	
Phenanthrene	85-01-8	<9.3	<9.5		ug/L	1	
Phenol	108-95-2	<9.3	<9.5		ug/L	1	
Pyrene	139-00-0	<9.3	<9.5		ug/L	1	
Tetrachloroethylene	127-18-4	<1.0	<1.0		ug/L	1	
Toluene	108-88-3	<1.0	<1.0		ug/L	1	
1,2,4 Trichlorobenzene	120-82-1	<9.3	<9.5		ug/L	1	
1,1,1 Trichloroethane	71-55-6	<1.0	<1.0		ug/L	1	
1,1,2 Trichloroethane	79-00-5	<5.0	<5.0		ug/L	1	
Trichloroethylene	79-01-6	<1.0	<1.0		ug/L	1	
Vinyl Chloride	75-01-4	<1.0	<1.0		ug/L	1	

Part C - Outfall DSN003

None

Part D - Outfall DSN003

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total Rainfall During Storm Event (in inches)	4. Number of Hours Between the Beginning of Storm Measured and End of the Previous Measurable Rain Event	5. Maximum Flow Rate During Rain Event (gallons/minute or specify units)	6. Total Flow from Rain Event (gallons or specify units)
2/21/2017	665	0.71	72.5	100 gpm	0.0147 MGD

Part A - Outfall DSN004

Pollutant	Maximum Values		Average Values		Units	Number of Storm Events Sampled	Sources of Pollutants
	Grab	Composite	Grab	Composite			
Oil and Grease	<4.7	-			mg/L	1	
Biological Oxygen Demand (BOD)	6.2	4.9			mg/L	1	
Chemical Oxygen Demand (COD)	27	30			mg/L	1	
Total Suspended Solids (TSS)	59	80			mg/L	1	
Total Nitrogen	3.9	2.6			mg/L	1	
Total Phosphorus	<0.010	0.16			mg/L	1	
pH	7.1	-			SU	1	

Part B - Outfall DSN004

Pollutant	CAS number	Maximum Values		Average Values		Units	Number of Storm Events Sampled	Sources of Pollutants
		Grab	Composite	Grab	Composite			
Total Chlorides	16887-00-6	3.3	3.8			mg/L	1	
Total Dissolved Solids (TDS)	N/A	140	160			mg/L	1	
Total Sulfates	14808-79-8	25	21			mg/L	1	
Total Chromium	7440-47-3	<0.010	<0.010			mg/L	1	
Total Copper	7440-50-8	<0.010	<0.010			mg/L	1	
Total Cyanide	57-12-5	<0.0050	<0.0050			mg/L	1	
Total Lead	7439-92-1	<0.0050	<0.0050			mg/L	1	
Total Nickel	7440-02-0	<0.0050	<0.0050			mg/L	1	
Total Zinc	7440-66-6	0.031	0.050			mg/L	1	
Nitrate, Nitrite	N/A	2.4	1.4			mg/L	1	
Total Kjeldahl Nitrogen	N/A	1.5	1.2			mg/L	1	
Acenaphthene	83-32-9	<9.3	<10			ug/L	1	
Acenaphthylene	208-96-8	<9.3	<10			ug/L	1	
Acrylonitrile	107-13-1	<9.3	<10			ug/L	1	
Anthracene	120-12-7	<9.3	<10			ug/L	1	
Benzene	71-43-2	<1.0	<1.0			ug/L	1	
Benzo Anthracene	56-55-3	<9.3	<10			ug/L	1	
3,4 Benzofluorathene	205-99-2	<9.3	<10			ug/L	1	
Benzo [k] Fluoranthene	207-08-9	<9.3	<10			ug/L	1	
Benzo [a] Pyrene	50-32-8	<9.3	<10			ug/L	1	
Bis(2-ethylhexyl) Phthalate	117-81-7	<9.3	<10			ug/L	1	
Carbon Tetrachloride	56-23-5	<1.0	<1.0			ug/L	1	
Chlorobenzene	108-90-7	<1.0	<1.0			ug/L	1	
Chloroethane	75-00-3	<1.0	<1.0			ug/L	1	
Chloroform	67-66-3	<1.0	<1.0			ug/L	1	
2-Chlorophenol	95-57-8	<9.3	<10			ug/L	1	
Chrysene	218-01-9	<9.3	<10			ug/L	1	
Di-N-Butyl Phthalate	84-74-2	<9.3	<10			ug/L	1	
1,2 Dichlorobenzene	95-50-1	<1.0	<1.0			ug/L	1	
1,3 Dichlorobenzene	541-73-1	<1.0	<1.0			ug/L	1	
1,4 Dichlorobenzene	106-46-7	<1.0	<1.0			ug/L	1	

1,1 Dichloroethane	75-34-3	<1.0	<1.0			ug/L	1	
1,2 Dichloroethane	107-06-2	<1.0	<1.0			ug/L	1	
1,1 Dichloroethylene	75-35-4	<1.0	<1.0			ug/L	1	
1,2 Trans-Dichloroethylene	156-60-5	<1.0	<1.0			ug/L	1	
2,4 Dichlorophenol	120-83-2	<9.3	<10			ug/L	1	
1,2 Dichloropropane	78-87-5	<1.0	<1.0			ug/L	1	
1,3 Dichloropropylene	542-75-6	<2.0	<2.0			ug/L	1	
Diethyl Phthalate	84-66-2	<9.3	<10			ug/L	1	
2,4 Dimethylphenol	105-67-9	<9.3	<10			ug/L	1	
Dimethyl Phthalate	131-11-3	<9.3	<10			ug/L	1	
4,6 Dinitro-0-Cresol	534-52-1	<10	<10			ug/L	1	
2,4 Dinitrophenol	51-28-5	<31	<31			ug/L	1	
2,4 Dinitrotoluene	121-14-2	<9.3	<10			ug/L	1	
2,6 Dinitrotoluene	606-20-2	<9.3	<10			ug/L	1	
Ethyl benzene	100-41-4	<1.0	<1.0			ug/L	1	
Fluoranthene	206-44-0	<9.3	<10			ug/L	1	
Fluorene	86-73-7	<9.3	<10			ug/L	1	
Hexachlorobenzene	118-74-1	<9.3	<10			ug/L	1	
Hexachlorobutadiene	87-68-3	<9.3	<10			ug/L	1	
Hexachloroethane	67-72-1	<9.3	<10			ug/L	1	
Methyl Chloride	74-87-3	<1.0	<1.0			ug/L	1	
Methylene Chloride	75-09-2	<5.0	<5.0			ug/L	1	
Naphthalene	91-20-3	<9.3	<10			ug/L	1	
Nitrobenzene	98-95-3	<9.3	<10			ug/L	1	
2-Nitrophenol	88-75-5	<9.3	<10			ug/L	1	
4-Nitrophenol	100-02-7	<9.3	<10			ug/L	1	
Phenanthrene	85-01-8	<9.3	<10			ug/L	1	
Phenol	108-95-2	<9.3	<10			ug/L	1	
Pyrene	139-00-0	<9.3	<10			ug/L	1	
Tetrachloroethylene	127-18-4	<1.0	<1.0			ug/L	1	
Toluene	108-88-3	<1.0	<1.0			ug/L	1	
1,2,4 Trichlorobenzene	120-82-1	<9.3	<10			ug/L	1	
1,1,1 Trichloroethane	71-55-6	<1.0	<1.0			ug/L	1	
1,1,2 Trichloroethane	79-00-5	<5.0	<5.0			ug/L	1	
Trichloroethylene	79-01-6	<1.0	<1.0			ug/L	1	
Vinyl Chloride	75-01-4	<1.0	<1.0			ug/L	1	

Part C - Outfall DSN004

None

Part D - Outfall DSN004

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total Rainfall During Storm Event (in inches)	4. Number of Hours Between the Beginning of Storm Measured and End of the Previous Measurable Rain Event	5. Maximum Flow Rate During Rain Event (gallons/minute or specify units)	6. Total Flow from Rain Event (gallons or specify units)
2/21/2017	665	0.71	72.5	246 gpm	0.0363 MGD

Part A - Outfall DSN006

Pollutant	Maximum Values		Average Values		Units	Number of Storm Events Sampled	Sources of Pollutants
	Grab	Composite	Grab	Composite			
Oil and Grease	<4.1	-			mg/L	1	
Biological Oxygen Demand (BOD)	5.0	7.6			mg/L	1	
Chemical Oxygen Demand (COD)	34	29			mg/L	1	
Total Suspended Solids (TSS)	36	14			mg/L	1	
Total Nitrogen	27	14			mg/L	1	
Total Phosphorus	0.40	0.26			mg/L	1	
pH	7.5	-			SU	1	

Part B - Outfall DSN006

Pollutant	CAS number	Maximum Values		Average Values		Units	Number of Storm Events Sampled	Sources of Pollutants
		Grab	Composite	Grab	Composite			
Total Chlorides	16887-00-6	22	11			mg/L	1	
Total Dissolved Solids (TDS)	N/A	330	200			mg/L	1	
Total Sulfates	14808-79-8	23	18			mg/L	1	
Total Chromium	7440-47-3	<0.010	<0.010			mg/L	1	
Total Copper	7440-50-8	<0.010	<0.010			mg/L	1	
Total Cyanide	57-12-5	<0.0050	<0.0050			mg/L	1	
Total Lead	7439-92-1	<0.0050	<0.0050			mg/L	1	
Total Nickel	7440-02-0	0.017	0.015			mg/L	1	
Total Zinc	7440-66-6	0.040	0.035			mg/L	1	
Nitrate, Nitrite	N/A	25	12			mg/L	1	
Total Kjeldahl Nitrogen	N/A	2.4	2.0			mg/L	1	
Acenaphthene	83-32-9	<9.3	<9.7			ug/L	1	
Acenaphthylene	208-96-8	<9.3	<9.7			ug/L	1	
Acrylonitrile	107-13-1	<10	<10			ug/L	1	
Anthracene	120-12-7	<9.3	<9.7			ug/L	1	
Benzene	71-43-2	<1.0	<1.0			ug/L	1	
Benzo Anthracene	56-55-3	<9.3	<9.7			ug/L	1	
3,4 Benzofluorathene	205-99-2	<9.3	<9.7			ug/L	1	
Benzo [k] Fluoranthene	207-08-9	<9.3	<9.7			ug/L	1	
Benzo [a] Pyrene	50-32-8	<9.3	<9.7			ug/L	1	
Bis(2-ethylhexyl) Phthalate	117-81-7	<9.3	<9.7			ug/L	1	
Carbon Tetrachloride	56-23-5	<1.0	<1.0			ug/L	1	
Chlorobenzene	108-90-7	<1.0	<1.0			ug/L	1	
Chloroethane	75-00-3	<1.0	<1.0			ug/L	1	
Chloroform	67-66-3	<1.0	<1.0			ug/L	1	
2-Chlorophenol	95-57-8	<9.3	<9.7			ug/L	1	
Chrysene	218-01-9	<9.3	<9.7			ug/L	1	
Di-N-Butyl Phthalate	84-74-2	<9.3	<9.7			ug/L	1	
1,2 Dichlorobenzene	95-50-1	<1.0	<1.0			ug/L	1	
1,3 Dichlorobenzene	541-73-1	<1.0	<1.0			ug/L	1	
1,4 Dichlorobenzene	106-46-7	<1.0	<1.0			ug/L	1	

1,1 Dichloroethane	75-34-3	<1.0	<1.0		ug/L	1	
1,2 Dichloroethane	107-06-2	<1.0	<1.0		ug/L	1	
1,1 Dichloroethylene	75-35-4	<1.0	<1.0		ug/L	1	
1,2 Trans-Dichloroethylene	156-60-5	<1.0	<1.0		ug/L	1	
2,4 Dichlorophenol	120-83-2	<9.3	<9.7		ug/L	1	
1,2 Dichloropropane	78-87-5	<1.0	<1.0		ug/L	1	
1,3 Dichloropropylene	542-75-6	<2.0	<2.0		ug/L	1	
Diethyl Phthalate	84-66-2	<9.3	<9.7		ug/L	1	
2,4 Dimethylphenol	105-67-9	<9.3	<9.7		ug/L	1	
Dimethyl Phthalate	131-11-3	<9.3	<9.7		ug/L	1	
4,6 Dinitro-0-Cresol	534-52-1	<9.3	<9.7		ug/L	1	
2,4 Dinitrophenol	51-28-5	<28	<28		ug/L	1	
2,4 Dinitrotoluene	121-14-2	<9.3	<9.7		ug/L	1	
2,6 Dinitrotoluene	606-20-2	<9.3	<9.7		ug/L	1	
Ethyl benzene	100-41-4	<1.0	<1.0		ug/L	1	
Fluoranthene	206-44-0	<9.3	<9.7		ug/L	1	
Fluorene	86-73-7	<9.3	<9.7		ug/L	1	
Hexachlorobenzene	118-74-1	<9.3	<9.7		ug/L	1	
Hexachlorobutadiene	87-68-3	<9.3	<9.7		ug/L	1	
Hexachloroethane	67-72-1	<9.3	<9.7		ug/L	1	
Methyl Chloride	74-87-3	<1.0	<1.0		ug/L	1	
Methylene Chloride	75-09-2	<5.0	<5.0		ug/L	1	
Naphthalene	91-20-3	<9.3	<9.7		ug/L	1	
Nitrobenzene	98-95-3	<9.3	<9.7		ug/L	1	
2-Nitrophenol	88-75-5	<9.3	<9.7		ug/L	1	
4-Nitrophenol	100-02-7	<9.3	<9.7		ug/L	1	
Phenanthrene	85-01-8	<9.3	<9.7		ug/L	1	
Phenol	108-95-2	<9.3	<9.7		ug/L	1	
Pyrene	139-00-0	<9.3	<9.7		ug/L	1	
Tetrachloroethylene	127-18-4	<1.0	<1.0		ug/L	1	
Toluene	108-88-3	<1.0	<1.0		ug/L	1	
1,2,4 Trichlorobenzene	120-82-1	<9.3	<9.7		ug/L	1	
1,1,1 Trichloroethane	71-55-6	<1.0	<1.0		ug/L	1	
1,1,2 Trichloroethane	79-00-5	<5.0	<5.0		ug/L	1	
Trichloroethylene	79-01-6	<1.0	<1.0		ug/L	1	
Vinyl Chloride	75-01-4	<1.0	<1.0		ug/L	1	

Part C - Outfall DSN006

None

Part D - Outfall DSN006

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total Rainfall During Storm Event (in inches)	4. Number of Hours Between the Beginning of Storm Measured and End of the Previous Measurable Rain Event	5. Maximum Flow Rate During Rain Event (gallons/minute or specify units)	6. Total Flow from Rain Event (gallons or specify units)
2/21/2017	665	0.71	72.5	853 gpm	0.1262 MGD

Part A - Outfall DSN007

Pollutant	Maximum Values		Average Values		Units	Number of Storm Events Sampled	Sources of Pollutants
	Grab	Composite	Grab	Composite			
Oil and Grease	<4.1	-			mg/L	1	
Biological Oxygen Demand (BOD)	3.7	5.9			mg/L	1	
Chemical Oxygen Demand (COD)	33	40			mg/L	1	
Total Suspended Solids (TSS)	200	87			mg/L	1	
Total Nitrogen	5.6	5.3			mg/L	1	
Total Phosphorus	0.6	0.38			mg/L	1	
pH	7.3	-			SU	1	

Part B - Outfall DSN007

Pollutant	CAS number	Maximum Values		Average Values		Units	Number of Storm Events Sampled	Sources of Pollutants
		Grab	Composite	Grab	Composite			
Total Chlorides	16887-00-6	3.7	3.3			mg/L	1	
Total Dissolved Solids (TDS)	N/A	160	160			mg/L	1	
Total Sulfates	14808-79-8	21	21			mg/L	1	
Total Chromium	7440-47-3	<0.010	<0.010			mg/L	1	
Total Copper	7440-50-8	<0.010	<0.010			mg/L	1	
Total Cyanide	57-12-5	<0.0050	<0.0050			mg/L	1	
Total Lead	7439-92-1	<0.0050	<0.0050			mg/L	1	
Total Nickel	7440-02-0	0.024	0.041			mg/L	1	
Total Zinc	7440-66-6	0.077	0.080			mg/L	1	
Nitrate, Nitrite	N/A	3.8	4.0			mg/L	1	
Total Kjeldahl Nitrogen	N/A	1.8	1.3			mg/L	1	
Acenaphthene	83-32-9	<9.3	<10			ug/L	1	
Acenaphthylene	208-96-8	<9.3	<10			ug/L	1	
Acrylonitrile	107-13-1	<10	<10			ug/L	1	
Anthracene	120-12-7	<9.3	<10			ug/L	1	
Benzene	71-43-2	<1.0	<1.0			ug/L	1	
Benzo Anthracene	56-55-3	<9.3	<10			ug/L	1	
3,4 Benzofluoranthene	205-99-2	<9.3	<10			ug/L	1	
Benzo [k] Fluoranthene	207-08-9	<9.3	<10			ug/L	1	
Benzo [a] Pyrene	50-32-8	<9.3	<10			ug/L	1	
Bis(2-ethylhexyl) Phthalate	117-81-7	<9.3	<10			ug/L	1	
Carbon Tetrachloride	56-23-5	<1.0	<1.0			ug/L	1	
Chlorobenzene	108-90-7	<1.0	<1.0			ug/L	1	
Chloroethane	75-00-3	<1.0	<1.0			ug/L	1	
Chloroform	67-66-3	<1.0	<1.0			ug/L	1	
2-Chlorophenol	95-57-8	<9.3	<10			ug/L	1	
Chrysene	218-01-9	<9.3	<10			ug/L	1	
Di-N-Butyl Phthalate	84-74-2	<9.3	<10			ug/L	1	
1,2 Dichlorobenzene	95-50-1	<1.0	<1.0			ug/L	1	
1,3 Dichlorobenzene	541-73-1	<1.0	<1.0			ug/L	1	
1,4 Dichlorobenzene	106-46-7	<1.0	<1.0			ug/L	1	

1,1 Dichloroethane	75-34-3	<1.0	<1.0			ug/L	1	
1,2 Dichloroethane	107-06-2	<1.0	<1.0			ug/L	1	
1,1 Dichloroethylene	75-35-4	<1.0	<1.0			ug/L	1	
1,2 Trans-Dichloroethylene	156-60-5	<1.0	<1.0			ug/L	1	
2,4 Dichlorophenol	120-83-2	<9.3	<10			ug/L	1	
1,2 Dichloropropane	78-87-5	<1.0	<1.0			ug/L	1	
1,3 Dichloropropylene	542-75-6	<2.0	<2.0			ug/L	1	
Diethyl Phthalate	84-66-2	<9.3	<10			ug/L	1	
2,4 Dimethylphenol	105-67-9	<9.3	<10			ug/L	1	
Dimethyl Phthalate	131-11-3	<9.3	<10			ug/L	1	
4,6 Dinitro-0-Cresol	534-52-1	<9.3	<10			ug/L	1	
2,4 Dinitrophenol	51-28-5	<28	<28			ug/L	1	
2,4 Dinitrotoluene	121-14-2	<9.3	<10			ug/L	1	
2,6 Dinitrotoluene	606-20-2	<9.3	<10			ug/L	1	
Ethyl benzene	100-41-4	<1.0	<1.0			ug/L	1	
Fluoranthene	206-44-0	<9.3	<10			ug/L	1	
Fluorene	86-73-7	<9.3	<10			ug/L	1	
Hexachlorobenzene	118-74-1	<9.3	<10			ug/L	1	
Hexachlorobutadiene	87-68-3	<9.3	<10			ug/L	1	
Hexachloroethane	67-72-1	<9.3	<10			ug/L	1	
Methyl Chloride	74-87-3	<1.0	<1.0			ug/L	1	
Methylene Chloride	75-09-2	<5.0	<5.0			ug/L	1	
Naphthalene	91-20-3	<9.3	<10			ug/L	1	
Nitrobenzene	98-95-3	<9.3	<10			ug/L	1	
2-Nitrophenol	88-75-5	<9.3	<10			ug/L	1	
4-Nitrophenol	100-02-7	<9.3	<10			ug/L	1	
Phenanthrene	85-01-8	<9.3	<10			ug/L	1	
Phenol	108-95-2	<9.3	<10			ug/L	1	
Pyrene	139-00-0	<9.3	<10			ug/L	1	
Tetrachloroethylene	127-18-4	<1.0	<1.0			ug/L	1	
Toluene	108-88-3	<1.0	<1.0			ug/L	1	
1,2,4 Trichlorobenzene	120-82-1	<9.3	<10			ug/L	1	
1,1,1 Trichloroethane	71-55-6	<1.0	<1.0			ug/L	1	
1,1,2 Trichloroethane	79-00-5	<5.0	<5.0			ug/L	1	
Trichloroethylene	79-01-6	<1.0	<1.0			ug/L	1	
Vinyl Chloride	75-01-4	<1.0	<1.0			ug/L	1	

Part C - Outfall DSN007

None

Part D - Outfall DSN007

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total Rainfall During Storm Event (in inches)	4. Number of Hours Between the Beginning of Storm Measured and End of the Previous Measurable Rain Event	5. Maximum Flow Rate During Rain Event (gallons/minute or specify units)	6. Total Flow from Rain Event (gallons or specify units)
2/21/2017	665	0.71	72.5	181 gpm	0.0268 MGD

Part A - Outfall DSN009

Pollutant	Maximum Values		Average Values		Units	Number of Storm Events Sampled	Sources of Pollutants
	Grab	Composite	Grab	Composite			
Oil and Grease	<4.6	-			mg/L	1	
Biological Oxygen Demand (BOD)	2.8	2.4			mg/L	1	
Chemical Oxygen Demand (COD)	29	39			mg/L	1	
Total Suspended Solids (TSS)	25	8.0			mg/L	1	
Total Nitrogen	1.9	1.7			mg/L	1	
Total Phosphorus	<0.10	<0.10			mg/L	1	
pH	7.5	-			SU	1	

Part B - Outfall DSN009

Pollutant	CAS number	Maximum Values		Average Values		Units	Number of Storm Events Sampled	Sources of Pollutants
		Grab	Composite	Grab	Composite			
Total Chlorides	16887-00-6	3.1	3.4			mg/L	1	
Total Dissolved Solids (TDS)	N/A	150	150			mg/L	1	
Total Sulfates	14808-79-8	30	29			mg/L	1	
Total Chromium	7440-47-3	<0.010	<0.010			mg/L	1	
Total Copper	7440-50-8	<0.010	<0.010			mg/L	1	
Total Cyanide	57-12-5	<0.0050	<0.0050			mg/L	1	
Total Lead	7439-92-1	<0.0050	<0.0050			mg/L	1	
Total Nickel	7440-02-0	0.0057	<0.0050			mg/L	1	
Total Zinc	7440-66-6	0.047	0.022			mg/L	1	
Nitrate, Nitrite	N/A	1.2	0.73			mg/L	1	
Total Kjeldahl Nitrogen	N/A	0.74	0.99			mg/L	1	
Acenaphthene	83-32-9	<9.3	<9.6			ug/L	1	
Acenaphthylene	208-96-8	<9.3	<9.6			ug/L	1	
Acrylonitrile	107-13-1	<10	<10			ug/L	1	
Anthracene	120-12-7	<9.3	<9.6			ug/L	1	
Benzene	71-43-2	<1.0	<1.0			ug/L	1	
Benzo Anthracene	56-55-3	<9.3	<9.6			ug/L	1	
3,4 Benzofluorathene	205-99-2	<9.3	<9.6			ug/L	1	
Benzo [k] Fluoranthene	207-08-9	<9.3	<9.6			ug/L	1	
Benzo [a] Pyrene	50-32-8	<9.3	<9.6			ug/L	1	
Bis(2-ethylhexyl) Phthalate	117-81-7	<9.3	<9.6			ug/L	1	
Carbon Tetrachloride	56-23-5	<1.0	<1.0			ug/L	1	
Chlorobenzene	108-90-7	<1.0	<1.0			ug/L	1	
Chloroethane	75-00-3	<1.0	<1.0			ug/L	1	
Chloroform	67-66-3	<1.0	<1.0			ug/L	1	
2-Chlorophenol	95-57-8	<9.3	<9.6			ug/L	1	
Chrysene	218-01-9	<9.3	<9.6			ug/L	1	
Di-N-Butyl Phthalate	84-74-2	<9.3	<9.6			ug/L	1	
1,2 Dichlorobenzene	95-50-1	<1.0	<1.0			ug/L	1	
1,3 Dichlorobenzene	541-73-1	<1.0	<1.0			ug/L	1	
1,4 Dichlorobenzene	106-46-7	<1.0	<1.0			ug/L	1	

1,1 Dichloroethane	75-34-3	<1.0	<1.0			ug/L	1	
1,2 Dichloroethane	107-06-2	<1.0	<1.0			ug/L	1	
1,1 Dichloroethylene	75-35-4	<1.0	<1.0			ug/L	1	
1,2 Trans-Dichloroethylene	156-60-5	<1.0	<1.0			ug/L	1	
2,4 Dichlorophenol	120-83-2	<9.3	<9.6			ug/L	1	
1,2 Dichloropropane	78-87-5	<1.0	<1.0			ug/L	1	
1,3 Dichloropropylene	542-75-6	<2.0	<2.0			ug/L	1	
Diethyl Phthalate	84-66-2	<9.3	<9.6			ug/L	1	
2,4 Dimethylphenol	105-67-9	<9.3	<9.6			ug/L	1	
Dimethyl Phthalate	131-11-3	<9.3	<9.6			ug/L	1	
4,6 Dinitro-0-Cresol	534-52-1	<9.3	<9.6			ug/L	1	
2,4 Dinitrophenol	51-28-5	<28	<28			ug/L	1	
2,4 Dinitrotoluene	121-14-2	<9.3	<9.6			ug/L	1	
2,6 Dinitrotoluene	606-20-2	<9.3	<9.6			ug/L	1	
Ethyl benzene	100-41-4	<1.0	<1.0			ug/L	1	
Fluoranthene	206-44-0	<9.3	<9.6			ug/L	1	
Fluorene	86-73-7	<9.3	<9.6			ug/L	1	
Hexachlorobenzene	118-74-1	<9.3	<9.6			ug/L	1	
Hexachlorobutadiene	87-68-3	<9.3	<9.6			ug/L	1	
Hexachloroethane	67-72-1	<9.3	<9.6			ug/L	1	
Methyl Chloride	74-87-3	<1.0	<1.0			ug/L	1	
Methylene Chloride	75-09-2	<5.0	<5.0			ug/L	1	
Naphthalene	91-20-3	<9.3	<9.6			ug/L	1	
Nitrobenzene	98-95-3	<9.3	<9.6			ug/L	1	
2-Nitrophenol	88-75-5	<9.3	<9.6			ug/L	1	
4-Nitrophenol	100-02-7	<9.3	<9.6			ug/L	1	
Phenanthrene	85-01-8	<9.3	<9.6			ug/L	1	
Phenol	108-95-2	<9.3	<9.6			ug/L	1	
Pyrene	139-00-0	<9.3	<9.6			ug/L	1	
Tetrachloroethylene	127-18-4	<1.0	<1.0			ug/L	1	
Toluene	108-88-3	<1.0	<1.0			ug/L	1	
1,2,4 Trichlorobenzene	120-82-1	<9.3	<9.6			ug/L	1	
1,1,1 Trichloroethane	71-55-6	<1.0	<1.0			ug/L	1	
1,1,2 Trichloroethane	79-00-5	<5.0	<5.0			ug/L	1	
Trichloroethylene	79-01-6	<1.0	<1.0			ug/L	1	
Vinyl Chloride	75-01-4	<1.0	<1.0			ug/L	1	

Part C - Outfall DSN009

None

Part D - Outfall DSN009

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total Rainfall During Storm Event (in inches)	4. Number of Hours Between the Beginning of Storm Measured and End of the Previous Measurable Rain Event	5. Maximum Flow Rate During Rain Event (gallons/minute or specify units)	6. Total Flow from Rain Event (gallons or specify units)
2/21/2017	665	0.71	72.5	595 gpm	0.0880 MGD

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**National Pollutant Discharge Elimination System
Permit Renewal Application**

NPDES Permit Number: AL0003085

U.S. Amines (Bucks) LLC
14086 Highway 43 North
Axis, Alabama 36505



Submitted to:
Alabama Department of Environmental Management (ADEM)

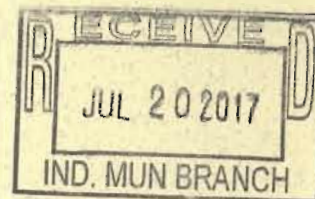
July 2017



**National Pollutant Discharge Elimination System
Permit Renewal Application**

NPDES Permit Number: AL0003085

U.S. Amines (Bucks) LLC
14086 Highway 43 North
Axis, Alabama 36505



Submitted to:
Alabama Department of Environmental Management (ADEM)

July 2017

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1.0 INTRODUCTION

U. S. Amines (Bucks) LLC is located in the LeMoyne Industrial Park, near Axis, Alabama. We are submitting a National Pollutant Discharge System (NPDES) permit application for the renewal of NPDES permit #AL003085. That permit is set to expire on January 30, 2018. The permit covers eight outfalls consisting of one wastewater treatment plant outfall and seven stormwater outfalls.

The US Amines Bucks Plant site is 300 acres in size. There are 60 acres of undeveloped property on the west side of Highway 43. There are 240 acres of property on the east side of Highway 43 of which 80 acres are developed and utilized in manufacturing.

US Amines acquired the site in January 2003. Operations in 2003 included the manufacture of aliphatic amines and the operation of the IB Nitrogen, IBDU fertilizer plant (Isobutylidene Diurea). The IBDU plant was closed down and removed in 2008. The site has hosted previous owners and manufacturing processes. Previous manufacturing included the production of a variety of sulfur-based chemicals. Those processes were closed and removed before 2002. Current operation by US Amines includes the manufacture of aliphatic amines and isopropyl alcohol. Most of the isopropyl alcohol is consumed as a captive raw material for amines production.

2.0 OUTFALLS

US Amines has one wastewater treatment plant outfall (DSN002) and seven designated stormwater outfalls. DSN002 is monitored and subject to the daily and monthly limits of the permit. Six of the seven stormwater outfalls are sampled under the provisions of the permit.

The outfalls to be sampled for this permit renewal include one wastewater treatment plant outfall and six stormwater outfalls. Stormwater outfall DSN008 is not currently required to be sampled under the permit. DSN008 was deemed by ADEM on October 9, 2001 to be "substantially identical" to DSN009. There has been no change in the status of DSN008, therefore we request that DSN009 remain the representative outfall for DSN008 and the areas as indicated in Table 2.1.

The wastewater treatment plant treats process wastewater from the manufacture of organic chemicals. Prior to June 2001, the plant also treated wastewater from inorganic processes, but those plants have been closed and removed. The wastewater treatment plant currently treats organic chemicals process wastewater, cooling tower blow down, boiler blow down, stormwater from process areas and chemical storage areas, laboratory wastewater, non-contact cooling water, and well water.

Table 2.1 - Outfall Descriptions

Outfall	Description	Form	Comments
DSN 001	Stormwater from non-process areas, former SBS plant and petroleum storage tank containment areas. Well water draining from well WE-09 (admin well). Well water discharge from the plant compressors. Well water for fire pond.	2F	
DSN 002	Aliphatic Amines plant process wastewater and stormwater. Boiler blowdown, non-contact cooling water, laboratory wastewater, RO unit reject water, stormwater from former sodium hydrosulfite and SBS plants.	2C	
DSN 003	Stormwater from contractor staging area, and warehouse.	2F	
DSN 004	Stormwater from former SO2 plant and maintenance shop.	2F	
DSN 006	Stormwater from the former SO2 plant, Amines and wastewater treatment plant.	2F	
DSN 007	Stormwater from wastewater treatment area.	2F	
DSN 008	Stormwater from Amines tank farm.	N/A	Sampling not required
DSN 009	Stormwater from Amines tank farm, contractor's yard, and former Hydrosulfite plant.	2F	Representative outfall for DSN008

3.0 DERIVATION OF PERMIT LIMITATIONS

No major process modifications since the last permit renewal.

The process wastewater from DSN002 is regulated by the Organic Chemicals, Plastics, and Synthetic Fibers (OCPSF) Effluent Guidelines, which are found in 40 CFR Part 414, Subpart G and Subpart I.

3.1 PROCESS WASTEWATER OUTFALL DSN002

OCPSF Process Wastewater

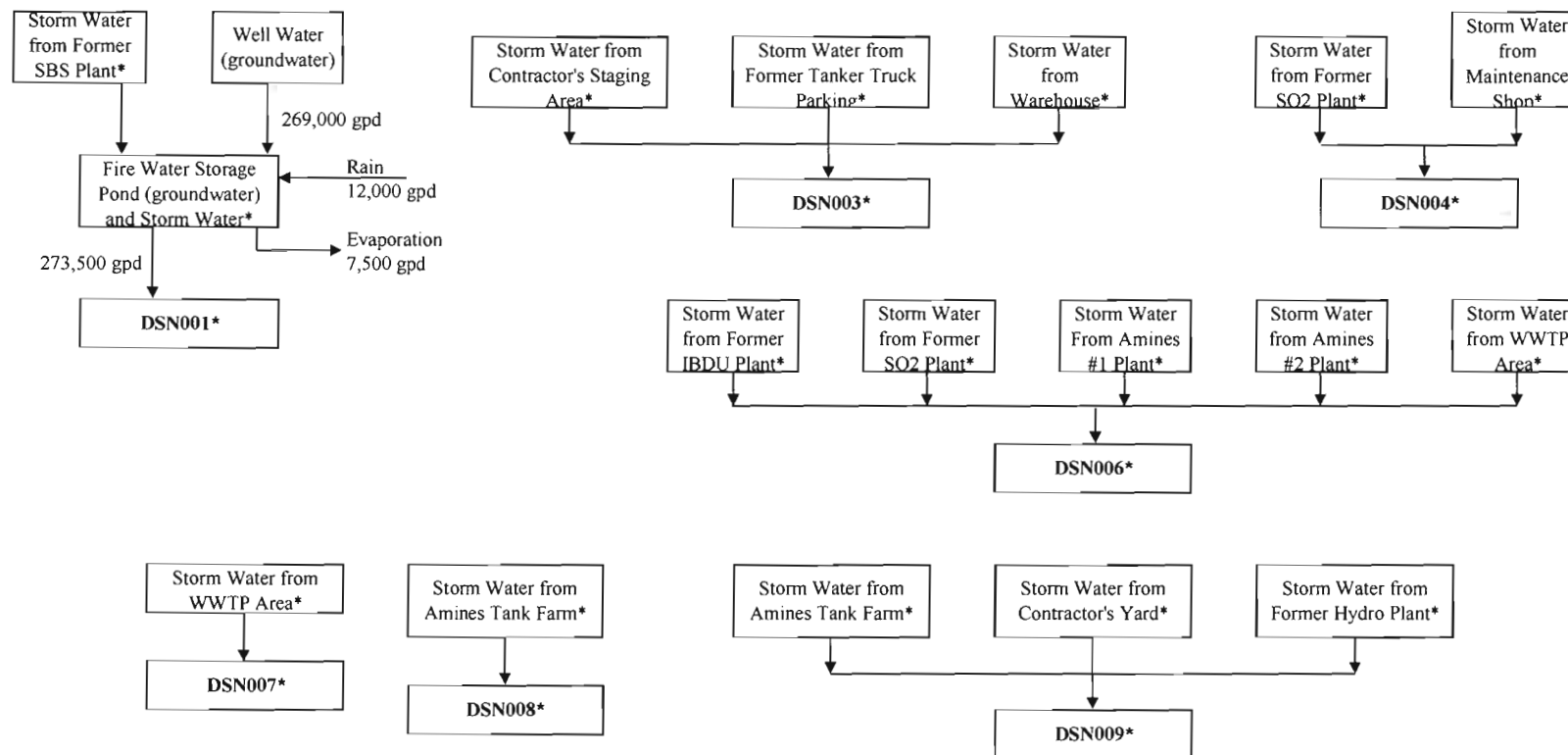
Discharges from the manufacturing of amines are subject to the OCPSF effluent guidelines. The flow rate from the regulated OCPSF process was calculated for the determination of the discharge limitations. The OCPSF process wastewater flow rate (130,400 gallons per day) was calculated from the highest monthly average flow rate over the past 12 months (May 2016 through April 2017) and best engineering judgment. Table 3-1 shows the monthly average flow rates for the past 12 months from the holding tank and the Amines equalization tank, through which all OCPSF wastewater passes before entering the treatment plant. There were several times during the year that the Amines Plant was shut down. During these shutdown periods, the Amines cooling tower and boiler blowdown were minimized, which contributed to a decrease in holding tank average flow rate during those months.

The current processes that contribute water to the holding tank include the Amines boiler blowdown, the Amines utility and washdown area, the Amines tank farm storm water, and the Amines cooling tower blowdown (see Figure 3-1). Because the Amines cooling tower blowdown is not subject to the OCPSF effluent guidelines, its flow rate (approximately 22,000 gpd) was deducted to determine the applicable OCPSF flow rate from the holding tank of 57,344 gpd. The total OCPSF flow rate includes the contribution from the Amines equalization tank (75,437 gpd) resulting in 132,781 gpd.

Table 3.1 - Long-term Average OCPSF Flow Rate

Monthly Average	Holding Tank Flow Rate (gpd)	Amines Equalization Tank Flow Rate (gpd)
June 2016	79,344	72,000
July 2016	71,861	72,000
August 2016	73,719	72,000
September 2016	72,288	72,000
October 2016	35,907	53,837
November 2016	22,512	66,576
December 2016	34,281	75,437
January 2017	51,886	58,390
February 2017	53,177	61,457
March 2017	35,025	70,978
April 2017	28,800	69,456
May 2017	75,159	70,142
Maximum Average	79,344	75,437
Cooling Tower Blowdown (not subject to OCPSF)	22,000	
OCPSF Flows	57,344	75,437
Total OCPSF Flow		132,781
Note: gpd = gallons per day		

Figure 3-1 (continued)
Wastewater Process Flow Diagram



* Indicates various flow rates dependant on rainfall

The best practicable control technology (BPT) concentration limits for "Bulk Organic Chemicals" are found in 40 CFR 414.71. The limitations for Subpart I, "Direct Discharge Point Sources that Use End-of-Pipe Biological Treatment" (40 CFR 414.91) were calculated using the concentration factors listed in that section. The calculation results for both Subparts are provided in Table 3-2.

Total Kjeldahl Nitrogen (TKN)

It is requested that the total Kjeldahl nitrogen (TKN) requirement remain the same as the previous permit requirement to monitor once per month. The OCPSF effluent guidelines do not prescribe limits for TKN, and no other effluent guidelines are applicable to the facility. The Amines process is the primary source of TKN at the facility. Because there has been no change in the Amines process, the allocation assigned in the previous permit is requested for this permit.

Non-OCPSF Wastewater Sources

The wastewater flow rates from non-OCPSF sources were determined from rainfall data and historical flow data. These flow rates include the Amines cooling tower blowdown (22,000 gpd), and the Hydro wastewater tanks (21,100 gpd), for a total of 43,100 gpd. Although the Hydro Plant was shut down in 2001, the storm water that accumulates on the former process pad is still collected and treated in the waste treatment plant. The permit limitations were calculated for these non-OCPSF waste streams on the basis of data from the previous permit application and best engineering judgment. These parameters are discussed below.

Total Suspended Solids

The previous non-OCPSF allocation for total suspended solids (TSS) was determined by subtracting the previous OCPSF Allocation from the current permit. The previous permit allocation for non-regulated (not regulated by Organic Chemical Manufacturing Effluent Guidelines) sources was multiplied by the ratio of the current non-OCPSF flow rate (43,100 gpd) and the previous non-regulated flow rate (46,500 gpd) to determine an allocation applicable to the current non-regulated source contribution. Since the non-OCPSF flow rate ratio is 0.927, the non-OCPSF permit allocation assigned in the new permit is requested ratio is to be slightly lower. Table 3-3 shows these results.

Biochemical Oxygen Demand

The previous non-OCPSF allocation for biochemical oxygen demand (BOD) was determined by subtracting the previous OCPSF allocation from the current permit limit. The previous permit allocation for non-regulated (not regulated by Organic Chemical Manufacturing Effluent Guidelines) sources was multiplied by the ratio of the current non-OCPSF flow rate (43,100 gpd) and the previous non-regulated flow rate (46,500 gpd) to determine an allocation applicable to the current non-regulated source contribution. Since the non-OCPSF flow rate ratio is 0.927, the non-OCPSF permit allocation assigned in the new permit is requested to be slightly lower. Table 3-3 shows these results.

Chemical Oxygen Demand

The current permit requires that chemical oxygen demand (COD) be monitored once per month. Since there are no applicable effluent guidelines that regulate COD, it is requested that the current permit "monitor only" requirement be assigned to the new permit.

A summary of the proposed permit limits, OCPSF and non-OCPSF allocations for DSN002 are shown in Table 3-4.

TABLE 3-2

Proposed OCPSF Permit Limitations for DSN002

Parameter	OCPSF Process Wastewater Flow (gal/day) (1)	Concentration Factors		Proposed U.S. Amines Limits	
		Maximum for Any One Day	Maximum for any Monthly Average	Daily Maximum (ppd)	Monthly Average (ppd)
40 CFR 414.71 Subpart G		(mg/L)	(mg/L)		
BOD5 (2)	130,400	92	34	100	37
TSS (2)	130,400	159	49	173	53
pH (units are in s.u.)	N/A	6.0 - 9.0	6.0 - 9.0	6.0 - 9.0	6.0 - 9.0
40 CFR 414.91 Subpart I		(µg/L)	(µg/L)		
Acenaphthene	130,400	59	22	0.064	0.024
Acenaphthylene	130,400	59	22	0.064	0.024
Acrylonitrile	130,400	242	96	0.263	0.104
Anthracene	130,400	59	22	0.064	0.024
Benzene	130,400	136	37	0.148	0.040
Benzo(a)anthracene	130,400	59	22	0.064	0.024
3,4-Benzofluoranthene	130,400	61	23	0.066	0.025
Benzo(k)fluoranthene	130,400	59	22	0.064	0.024
Benzo(a)pyrene	130,400	61	23	0.066	0.025
Bis(2-ethylhexyl) phthalate	130,400	279	103	0.303	0.112
Carbon Tetrachloride	130,400	38	18	0.041	0.020
Chlorobenzene	130,400	28	15	0.030	0.016
Chloroethane	130,400	268	104	0.291	0.113
Chloroform	130,400	46	21	0.050	0.023
2-Chlorophenol	130,400	98	31	0.107	0.034
Chrysene	130,400	59	22	0.064	0.024
Di-n-butyl phthalate	130,400	57	27	0.062	0.029
1,2-Dichlorobenzene	130,400	163	77	0.177	0.084
1,3-Dichlorobenzene	130,400	44	31	0.048	0.034
1,4-Dichlorobenzene	130,400	28	15	0.030	0.016
1,1-Dichloroethane	130,400	59	22	0.064	0.024
1,2-Dichloroethane	130,400	211	68	0.229	0.074
1,1-Dichloroethylene	130,400	25	16	0.027	0.017
1,2-trans-Dichloroethylene	130,400	54	21	0.059	0.023
2,4-Dichlorophenol	130,400	112	39	0.122	0.042
1,2-Dichloropropane	130,400	230	153	0.250	0.166
1,3-Dichloropropylene	130,400	44	29	0.048	0.032
Diethyl phthalate	130,400	203	81	0.221	0.088
2,4-Dimethylphenol	130,400	36	18	0.039	0.020
Dimethyl phthalate	130,400	47	19	0.051	0.021
4,6-Dinitro-o-cresol	130,400	277	78	0.301	0.085
2,4-Dinitrophenol	130,400	123	71	0.134	0.077
2,4-Dinitrotoluene	130,400	285	113	0.310	0.123
2,6-Dinitrotoluene	130,400	641	255	0.697	0.277
Ethylbenzene	130,400	108	32	0.117	0.035
Fluoranthene	130,400	68	25	0.074	0.027
Fluorene	130,400	59	22	0.064	0.024
Hexachlorobenzene	130,400	28	15	0.030	0.016
Hexachlorobutadiene	130,400	49	20	0.053	0.022
Hexachloroethane	130,400	54	21	0.059	0.023
Methyl Chloride	130,400	190	86	0.207	0.094
Methylene Chloride	130,400	89	40	0.097	0.044
Naphthalene	130,400	59	22	0.064	0.024
Nitrobenzene	130,400	68	27	0.074	0.029
2-Nitrophenol	130,400	69	41	0.075	0.045
4-Nitrophenol	130,400	124	72	0.135	0.078
Phenanthrene	130,400	59	22	0.064	0.024
Phenol	130,400	26	15	0.028	0.016
Pyrene	130,400	67	25	0.073	0.027
Tetrachloroethylene	130,400	56	22	0.061	0.024
Toluene	130,400	80	26	0.087	0.028

TABLE 3-2 (Continued)

Proposed OCPSF Permit Limitations for DSN002

Parameter	OCPSF Process Wastewater Flow (gal/day) (1)	Concentration Factors		Proposed U.S. Amines Limits	
		Maximum for Any One Day	Maximum for any Monthly Average	Daily Maximum (ppd)	Monthly Average (ppd)
Total Chromium (4)	118,500	2,770	1,110	2.738	1.097
Total Copper (4)	118,500	3,380	1,450	3.340	1.433
Total Cyanide (3)	22,631	1,200	420	0.226	0.079
Total Lead (4)	118,500	690	320	0.682	0.316
Total Nickel (4)	118,500	3,980	1,690	3.933	1.670
Total Zinc (4)	118,500	2,610	1,050	2.579	1.038
1,2,4-Trichlorobenzene	130,400	140	68	0.152	0.074
1,1,1-Trichloroethane	130,400	54	21	0.059	0.023
1,1,2-Trichloroethane	130,400	54	21	0.059	0.023
Trichloroethylene	130,400	54	21	0.059	0.023
Vinyl Chloride	130,400	268	104	0.291	0.113

Notes:

40 CFR 414.71 Subpart G—Bulk Organic Chemicals

40 CFR 414.91 Subpart I—Direct Discharge Point Sources that use End-of-pipe Biological Treatment

(1) The process water flow rate for OCPSF limitations includes the maximum average flow rate from the Amines holding tank (79,344 gpd) and the Amines equalization tank (75,437 gpd), minus the estimated amounts from the Amines cooling tower blowdown (22,000 gpd), for a total of 130,400 gpd.

(2) The limits for BOD5 and TSS listed in this table are allotments for only OCPSF sources. See Table 3-4 for a summary of proposed limitations for BOD5 and TSS.

(3) Discharge limits for cyanide are determined from the production-weighted process flow for the propionitrile raw material. The potential cyanide bearing waste is the Equalization Tank waste stream (process wastewater, process pads, and loading) from the amines plant (e.g., 30% x 75,437 gallons per day)

(4) The flow rate for metal-bearing waste was calculated from the combined influent flows to the treatment plant from the Amines utility and washdown (7,500 gpd), Amines tank farm storm water (18,900 gpd), former Sodium Bisulfite Plant and former Hydrosulfite Plant storm water (21,100 gpd), Amines railcar and truck loading storm water (8,000 gpd), Amines process reaction water (63,000 gpd), for a total of 118,500 gpd.

BPT = Best practicable control technology

OCPSF = Organic Chemicals, Plastics, and Synthetic Fibers

gal/day = Gallons per day

ppd = Pounds per day

mg/L = Milligrams per liter

µg/L = Micrograms per liter

TABLE 3-3

Proposed Non-OCPSF Limitations for DSN002

Previous non-regulated sources flow rate	46,500	gpd
Current non-regulated sources flow rate	43,100	gpd
Ratio	0.927	

Daily Maximum Allocations			
Parameter	Units	Previous Allotment	Proposed Allotment (1)
BOD ₅	lb/day	17	16
Total Suspended Solids	lb/day	17	16
Total Kjeldahl Nitrogen (2)	lb/day	N/A	N/A

Monthly Average Allocations			
Parameter	Units	Previous Allotment	Proposed Allotment (1)
BOD ₅	lb/day	12	11
Total Suspended Solids	lb/day	12	11
Total Kjeldahl Nitrogen (2)	lb/day	N/A	N/A

Notes:

(1) The other sources flow rate is the addition of non-OCPSF waters entering the treatment plant. These include the cooling tower blowdown, and former sodium hydrosulfite plant storm water for a total of 43,100 gpd

(2) The requested TKN allocations are the same as the previous permit limits. The OCPSF effluent guidelines do not prescribe limits for TKN and no other effluent guidelines are applicable to the facility. The Amines process is the primary source of TKN at the facility. Because there has been no change in the Amines process, the requested allocation is monitor once per month.

(3) See Table 3-4 for a summary of proposed permit limitations.

BOD₅ = 5-day biochemical oxygen demand

lb/day = Pounds per day

3.2 STORM WATER ASSOCIATED WITH INDUSTRIAL ACTIVITY

One storm water outfall has been selected as representative outfall, DSN009 is representative of DSN008. DSN008 accumulates storm water from 4.17 acres of the Amines Tank farm. DSN009 has been chosen to represent DSN008 because it discharges storm water from the Amines tank farm, in addition to the contractor yard and former Hydrosulfite plant, for a total drainage basin size of 17.1 acres. Approval for this representative outfall was provided by ADEM in a letter dated October 9, 2001.

Except for the permit limitation of 15 milligrams per liter (mg/L) for oil and grease, it is requested that the permit requirements of "monitor only" remain the same for the storm water outfalls.

Other Permit Requests

The monitoring frequencies required in the previous permit are requested in the renewal permit.

TABLE 3-4

Summary of Proposed Limitations for DSN002

Daily Maximum Allocations				
Parameter	Units	OCPSF Sources	Non-OCPSF Sources	Total Requested Allocation
BOD ₅	lb/day	100	16	116
Total Suspended Solids	lb/day	173	16	189
Total Kjeldahl Nitrogen (2)	lb/day	N/A	Monitor	Monitor
pH	s.u.	6.0 - 9.0	N/A	6.0 - 9.0

Monthly Average Allocations				
Parameter	Units	OCPSF Sources	Non-OCPSF Sources	Total Requested Allocation
BOD ₅	lb/day	37	11	48
Total Suspended Solids	lb/day	53	11	64
Total Kjeldahl Nitrogen (2)	lb/day	N/A	Monitor	Monitor
pH	s.u.	6.0 - 9.0	N/A	6.0 - 9.0

Notes:

BOD₅ = 5-day biochemical oxygen demand

OCPSF = Organic Chemicals, Plastics, and Synthetic Fibers

lb/day = Pounds per day

N/A = Not applicable



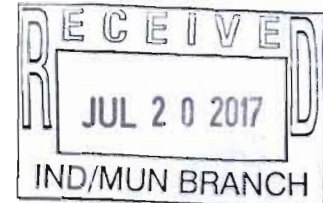
14086 US Highway 43 North
Axis, AL 36505

251-829-6601 Main Number
251-829-3739 Main Fax

www.usamines.com

July 18, 2017

Mr. Russell A. Kelly
Permits and Services Division
Alabama Department of Environmental Management
1400 Coliseum Blvd.
Montgomery, AL 36110-2400



RE: NPDES Permit Number AL0003085
Permit Renewal Application

Dear Mr. Kelly:

Enclosed are two (2) copies of our NPDES Permit Renewal Application Package for the renewal of the above referenced NPDES Permit for U. S. Amines (Bucks) LLC. The current permit expires on February 31, 2018 so this renewal application is being submitted more than 180 days in advance of expiration. A check for \$19,005 is also enclosed for the permit application fee.

During the preparation of the previous NPDES Permit, we requested that the Discharge Information Zone (DIZ) Study requirement be removed. This request was granted and the current permit does not contain the DIZ Study Requirement. As a result, we are not submitting a DIZ Study with this renewal application.

If you have any questions, call me at your convenience at 251-829-3841.

Sincerely,

U. S. Amines

Samantha Johnston
Environmental Engineer

Enclosures

c: Ms. Latoya Hall (cover letter only)
Alabama Department of Environmental Management
NPDES Permit Branch, Water Division
1400 Coliseum Blvd.
Montgomery, AL 36110-2400

Bucks Plant