S
STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES
William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243-1102

April 25, 2018

Mr. Darrell Fisher
General Manager
e-copy: darrell.fisher@albemarle.com
Albemarle U.S., Inc.
865 Foote Lane
New Johnsonville, TN 37134

Subject: **Draft of Revoke & Reissue NPDES Permit No. TN0062537**
Albemarle U.S., Inc.
New Johnsonville, Humphreys County, Tennessee

Dear Mr. Fisher:

Enclosed please find a draft copy of the modified NPDES Permit No. TN0062537 which the Division of Water Resources proposes to issue. This draft copy is furnished to you solely for your review of its provisions. No wastewater discharges are authorized by this modified permit. The issuance of an official modified permit is contingent upon your meeting all of the requirements of the Tennessee Water Quality Control Act and the Rules and Regulations of the Tennessee Water Quality, Oil and Gas Board.

Also enclosed is a copy of the public notice that announces our intent to issue this permit. The notice affords the public an opportunity to review the draft permit and, if necessary, request a public hearing on this issuance process. If you disagree with the provisions and requirements contained in the draft permit, you have thirty (30) days from the date of this correspondence to notify the division of your objections. If your objections cannot be resolved, you may appeal this permit upon issuance. This appeal should be filed in accordance with Section 69-3-110 of the Tennessee Code Annotated.

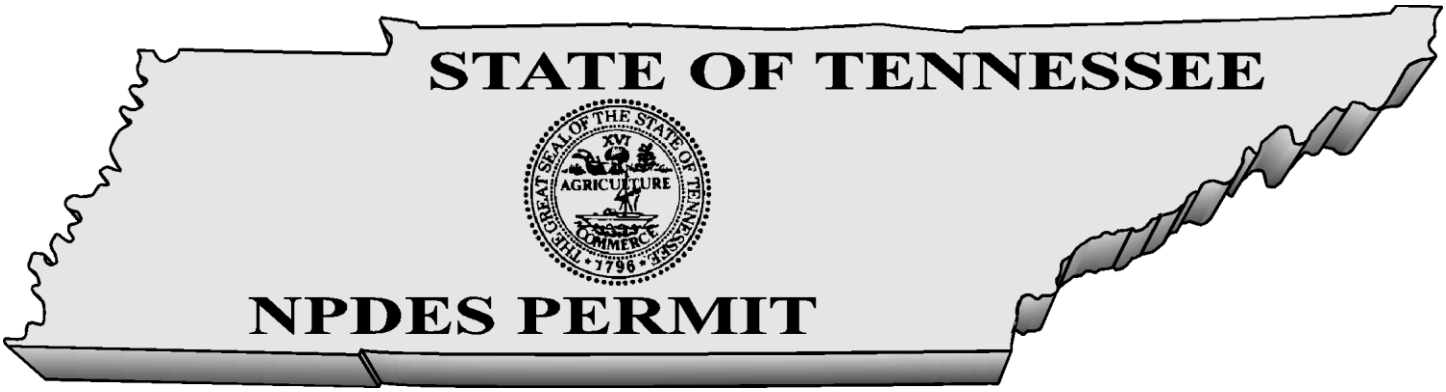
If you have questions, please contact the Nashville Environmental Field Office at 1-888-891-TDEC; or, at this office, please contact Mr. Jack Beach at (615) 532-0623 or by E-mail at *Jack.Beach@tn.gov*.

Sincerely,

Vojin Janjić
Manager, Water-Based Systems

Enclosure

cc: Permit Section File
Nashville Environmental Field Office
NPDES Permit Section, EPA Region IV, r4npdespermits@epa.gov
Mr. John Stewart, Plant Chemist, Albemarle U.S., Inc., john.stewart@albemarle.com



Revoke & Reissue
No. TN0062537

Authorization to discharge under the
National Pollutant Discharge Elimination System (NPDES)

Issued By

Tennessee Department of Environment and Conservation
Division of Water Resources
401 Church Street
6th Floor, L & C Annex
Nashville, Tennessee 37243-1534

Under authority of the Tennessee Water Quality Control Act of 1977 (T.C.A. 69-3-101 et seq.) and the delegation of authority from the United States Environmental Protection Agency under the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 (33 U.S.C. 1251, et seq.)

Discharger:	**Albemarle U.S., Inc**
is authorized to discharge:	**process wastewater, container wash water, cooling tower blowdown and storm water runoff from Outfall 001 and storm water runoff from Outfalls SW1 and SW2**
from a facility located:	**in New Johnsonville, Humphreys County, Tennessee**
to receiving waters named:	**Indian Creek Embayment of the Tennessee River via a wet weather conveyance**

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective on:

This permit shall expire on: **June 30, 2018**

Draft

Issuance date:

for Tisha Calabrese Benton
Director

CN-0759

RDAs 2352 and 2366

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PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Albemarle U.S., Inc is authorized to discharge process wastewater, container wash water, cooling tower blowdown and storm water runoff from Outfall 001 and storm water runoff from Outfall SW2 to Indian Creek Embayment of the Tennessee River via a wet weather conveyance.

These discharges shall be limited and monitored by the permittee as specified below:

Description : External Outfall, Number : 001, Monitoring : Effluent Gross, Season : All Year

Parameter	Qualifier	Value	Unit	Sample Type	Frequency	StatisticalBase
BOD, 5-day, 20 C	<=	45.0	mg/L	Grab	Monthly	Daily Maximum
BOD, 5-day, 20 C	<=	45.0	mg/L	Grab	Monthly	Monthly Average
Flow[1]	Report	-	Mgal/d	Instantaneous	Monthly	Monthly Average
Flow	Report	-	Mgal/d	Instantaneous	Monthly	Daily Maximum
Total Suspended Solids (TSS)	<=	40.0	mg/L	Grab	Monthly	Daily Maximum
Total Suspended Solids (TSS)	<=	40.0	mg/L	Grab	Monthly	Monthly Average
pH[2]	>=	6.0	SU	Grab	Monthly	Daily Maximum
pH	<=	9.0	SU	Grab	Monthly	Daily Maximum
Lithium, total (as Li)	Report	-	mg/L	Grab	Annual	Monthly Average
Lithium, total (as Li)	Report	-	mg/L	Grab	Annual	Daily Maximum
Toluene	Report	-	mg/L	Grab	Monthly	Monthly Average
Toluene	Report	-	mg/L	Grab	Monthly	Daily Maximum

Description : External Outfall, Number : SW2, Monitoring : Effluent Gross, Season : All Year

Parameter	Qualifier	Value	Unit	Sample Type	Frequency	Statistical Base
BOD, 5-day, 20 C	Report	-	mg/L	Grab	Semiannual	Daily Maximum
Flow	Report	-	Mgal/d	Estimate	Semiannual	Daily Maximum
Flow	Report	-	Mgal/d	Estimate	Semiannual	Monthly Average
Oil and grease	Report	-	mg/L	Grab	Semiannual	Daily Maximum
Total Suspended Solids (TSS)	Report	-	mg/L	Grab	Semiannual	Daily Maximum
pH	Report	-	SU	Grab	Semiannual	Value

[1] Flow should be reported in Million Gallons per Day (MGD). The permittee shall record the date and duration (in hours) of the storm event(s) sampled; rainfall measurements or estimates (in inches) of the storm event that generated the sampled runoff; the duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event. Based on these data, the permittee shall provide an estimate of the total volume (flow) of the discharge sampled. Flow shall be reported in Million Gallons per Day (MGD).

[2] pH analyses shall be performed within fifteen (15) minutes of sample collection. Collected within 30 minutes of initiation of flow during a storm event that is greater than 0.1 inches and that occurs after a period of at least 72 hours after any previous storm event with rainfall of 0.1 inches or greater.

Additional monitoring requirements and conditions applicable to Outfall 001 include:

There shall be no distinctly visible floating solids, scum, foam, oily slick, or the formation of slimes, bottom deposits or sludge banks of such size or character that may be detrimental to fish and aquatic life.

The wastewater discharge shall not contain pollutants in quantities that will be hazardous or otherwise detrimental to humans, livestock, wildlife, plant life, or fish and aquatic life in the receiving stream.

Sludge or any other material removed by any treatment works must be disposed of in a manner, which prevents its entrance into or pollution of any surface or subsurface waters. Additionally, the disposal of such sludge or other material must be in compliance with the Tennessee Solid Waste Disposal Act, TCA 68-31-101 et seq. and the Tennessee Hazardous Waste Management Act, TCA 68-46-101 et seq.

B. MONITORING PROCEDURES

1. Representative Sampling

Samples and measurements taken in compliance with the monitoring requirements specified herein shall be representative of the volume and nature of the monitored discharge, and shall be taken after treatment and prior to mixing with uncontaminated storm water runoff or the receiving stream.

2. Sampling Frequency

If there is a discharge from a permitted outfall on any given day during the monitoring period, the permittee must sample and report the results of analyses accordingly, and the permittee should not mark the 'No Discharge' box on the Discharge Monitoring Report form.

3. Test Procedures

a. Test procedures for the analysis of pollutants shall conform to regulations published pursuant to Section 304 (h) of the Clean Water Act (the "Act"), as amended, under which such procedures may be required.

b. Unless otherwise noted in the permit, all pollutant parameters shall be determined according to methods prescribed in Title 40, CFR Part 136, as amended, promulgated pursuant to Section 304 (h) of the Act.

In instances where permit limits established through implementation of applicable water criteria are below analytical capabilities, compliance with those limits will be determined using the detection limits described in the TN Rules, Chapter 0400-04-03-.05(8).

4. 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 exact place, date and time of sampling;

b. The exact person(s) collecting samples;

c. The dates and times the analyses were performed;

d. The person(s) or laboratory who performed the analyses;

e. The analytical techniques or methods used, and;

f. The results of all required analyses.

5. Records Retention

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed and calibration and maintenance of instrumentation shall be retained for a minimum of three (3) years, or longer, if requested by the Division of Water Resources.

C. DEFINITIONS

For the purpose of this permit, ***Annually*** is defined as a monitoring frequency of once every twelve (12) months beginning with the date of issuance of this permit so long as the following set of measurements for a given 12 month period are made approximately 12 months subsequent to that time.

A ***bypass*** is defined as the intentional diversion of waste streams from any portion of a treatment facility.

A ***calendar day*** is defined as the 24-hour period from midnight to midnight or any other 24-hour period that reasonably approximates the midnight to midnight time period.

The ***Daily Maximum Amount***, is a limitation measured in pounds per day (lb/day), on the total amount of any pollutant in the discharge by weight during any calendar day.

The ***Daily Maximum Concentration*** is a limitation on the average concentration, in milligrams per liter (mg/L), of the discharge during any calendar day. When a proportional-to-flow composite sampling device is used, the daily concentration is the concentration of that 24-hour composite; when other sampling means are used, the daily concentration is the arithmetic mean of the concentrations of equal volume samples collected during any calendar day or sampling period.

Degradation means the alteration of the properties of waters by the addition of pollutants or removal of habitat.

De Minimis – Alterations, other than those resulting in the condition of pollution or new domestic wastewater discharges, that represent either a small magnitude or a short duration shall be considered a *de minimis* impact and will not be considered degradation for purposes of implementing the antidegradation policy. Discharges other than domestic wastewater will be considered *de minimis* if they are temporary or use less than five percent of the available assimilative capacity for the substance being discharged. If more than one activity has been authorized in a segment and the total of the impacts uses no more than ten percent of the assimilative capacity, available habitat, or 7Q10 low flow, they are presumed to be *de minimis*. Where total impacts use more than ten percent of the assimilative capacity, available habitat, or 7Q10 low flow they may be treated as *de minimis* provided that the division finds on a scientific basis that the additional degradation has an insignificant effect on the resource and that no single activity is allowed to consume more than five percent of the assimilative capacity, available habitat or 7Q10 low flow.

Discharge or "discharge of a pollutant" refers to the addition of pollutants to waters from a source.

Dry Weather Flow shall be construed to represent discharges consisting of process and/or non-process wastewater only.

An ***ecoregion*** is a relatively homogeneous area defined by similarity of climate, landform, soil, potential natural vegetation, hydrology, or other ecologically relevant variables.

The ***geometric mean*** of any set of values is the n^{th} root of the product of the individual 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 the purposes of calculating the geometric mean, values of zero (0) shall be considered to be one (1).

A ***Grab Sample***, for the purposes of this permit, is defined as a single effluent sample of at least 100 milliliters (sample volumes <100 milliliters are allowed when specified per standard methods, latest edition) collected at a randomly selected time over a period not exceeding 15 minutes. The sample(s) shall be collected at the period(s) most representative of the total discharge.

The ***Instantaneous Concentration*** is a limitation on the concentration, in milligrams per liter (mg/L), of any pollutant contained in the discharge determined from a grab sample taken at any point in time.

The ***monthly average amount***, shall be determined by the summation of all the measured daily discharges by weight divided by the number of days during the calendar month when the measurements were made.

The ***monthly average concentration***, other than for *E. coli* bacteria, is the arithmetic mean of all the composite or grab samples collected in a one-calendar month period.

A ***one week period*** (or ***calendar-week***) is defined as the period from Sunday through Saturday. For reporting purposes, a calendar week that contains a change of month shall be considered part of the latter month.

Pollutant means sewage, industrial wastes, or other wastes.

A **Qualifying Storm Event** is one which is greater than 0.1 inches and that occurs after a period of at least 72 hours after any previous storm event with rainfall of 0.1 inches or greater.

For the purpose of this permit, a ***Quarter*** is defined as any one of the following three month periods: January 1 through March 31, April 1 through June 30, July 1 through September 30, or October 1 through December 31.

A ***rainfall event*** is defined as any occurrence of rain, preceded by 10 hours without precipitation that results in an accumulation of 0.01 inches or more. Instances of rainfall occurring within 10 hours of each other will be considered a single rainfall event.

A ***rationale*** (or “fact sheet”) is a document that is prepared when drafting an NPDES permit or permit action. It provides the technical, regulatory and administrative basis for an agency’s permit decision.

A ***reference site*** means least impacted waters within an ecoregion that have been monitored to establish a baseline to which alterations of other waters can be compared.

A ***reference condition*** is a parameter-specific set of data from regional reference sites that establish the statistical range of values for that particular substance at least-impacted streams.

For the purpose of this permit, ***Semi-annually*** means the same as "once every six months." Measurements of the effluent characteristics concentrations may be made anytime during a 6 month period beginning from the issuance date of this permit so long as the second set of measurements for a given 12 month period are made approximately 6 months subsequent to that time, if feasible.

A ***subecoregion*** is a smaller, more homogenous area that has been delineated within an ecoregion.

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based effluent 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.

The term, ***washout*** is applicable to activated sludge plants and is defined as loss of mixed liquor suspended solids (MLSS) of 30.00% or more from the aeration basin(s).

Waters means any and all water, public or private, on or beneath the surface of the ground, which are contained within, flow through, or border upon Tennessee or any portion thereof except those bodies of water confined to and retained within the limits of private

property in single ownership which do not combine or effect a junction with natural surface or underground waters.

The ***weekly average amount***, shall be determined by the summation of all the measured daily discharges by weight divided by the number of days during the calendar week when the measurements were made.

The ***weekly average concentration***, is the arithmetic mean of all the composite samples collected in a one-week period. The permittee must report the highest weekly average in the one-month period.

Wet Weather Flow shall be construed to represent storm water runoff which, in combination with all process and/or non-process wastewater discharges, as applicable, is discharged during a qualifying storm event.

D. ACRONYMS AND ABBREVIATIONS

1Q10 – 1-day minimum, 10-year recurrence interval
30Q20 – 30-day minimum, 20-year recurrence interval
7Q10 – 7-day minimum, 10-year recurrence interval
BAT – best available technology economically achievable
BCT – best conventional pollutant control technology
BDL – below detection level
BOD_5 – five day biochemical oxygen demand
BPT – best practicable control technology currently available
$CBOD_5$ – five day carbonaceous biochemical oxygen demand
CEI – compliance evaluation inspection
CFR – code of federal regulations
CFS – cubic feet per second
CFU – colony forming units
CIU – categorical industrial user
CSO – combined sewer overflow
DMR – discharge monitoring report
D.O. – dissolved oxygen
E. coli – Escherichia coli
EFO – environmental field office
LB(lb) - pound
IC_{25} – inhibition concentration causing 25% reduction in survival, reproduction and growth of the test organisms
IU – industrial user
IWS – industrial waste survey
LC_{50} – acute test causing 50% lethality
MDL – method detection level
MGD – million gallons per day
MG/L(mg/l) – milligrams per liter
ML – minimum level of quantification
ml – milliliter

MLSS – mixed liquor suspended solids
MOR – monthly operating report
NODI – no discharge
NOEC – no observed effect concentration
NPDES – national pollutant discharge elimination system
PL – permit limit
POTW – publicly owned treatment works
RDL – required detection limit
SAR – semi-annual [pretreatment program] report
SIU – significant industrial user
SSO – sanitary sewer overflow
STP – sewage treatment plant
TCA – Tennessee code annotated
TDEC – Tennessee Department of Environment and Conservation
TIE/TRE – toxicity identification evaluation/toxicity reduction evaluation
TMDL – total maximum daily load
TRC – total residual chlorine
TSS – total suspended solids
WQBEL – water quality based effluent limit

E. REPORTING

1. Monitoring Results

Monitoring results shall be recorded monthly and submitted monthly using Discharge Monitoring Report (DMR) forms supplied by the Division of Water Resources. Submittals shall be postmarked no later than 15 days after the completion of the reporting period. A completed DMR with an original signature shall be submitted to the following address:

TENNESSEE DEPT. OF ENVIRONMENT & CONSERVATION
DIVISION OF WATER RESOURCES
ENFORCEMENT & COMPLIANCE SECTION
L & C ANNEX 6TH FLOOR
401 CHURCH STREET
NASHVILLE TN 37243

A copy of the completed and signed DMR shall be mailed to the Nashville Environmental Field Office (EFO) at the following address:

TENNESSEE DEPT. OF ENVIRONMENT & CONSERVATION
DIVISION OF WATER RESOURCES
NASHVILLE ENVIRONMENTAL FIELD OFFICE
711 R.S. GASS BOULEVARD
NASHVILLE TN 37243

A copy should be retained for the permittee's files. In addition, any communication regarding compliance with the conditions of this permit must be sent to the two offices listed above.

The first DMR is due on the 15th of the month following permit effectiveness.

DMRs and any other information or report must be signed and certified by a responsible corporate officer as defined in 40 CFR 122.22, a general partner or proprietor, or a principal municipal executive officer or ranking elected official, or his duly authorized representative. Such authorization must be submitted in writing and must explain the duties and responsibilities of the authorized representative.

The electronic submission of DMR data will be accepted only if formally approved beforehand by the division. For purposes of determining compliance with this permit, data approved by the division to be submitted electronically is legally equivalent to data submitted on signed and certified DMR forms.

2. Additional Monitoring by Permittee

If the permittee monitors any pollutant specifically limited by this permit more frequently than required at the location(s) designated, using approved analytical methods as specified herein, the results of such monitoring shall be included in the calculation and reporting of the values required in the DMR form. Such increased frequency shall also be indicated on the form.

3. Falsifying Results and/or Reports

Knowingly making any false statement on any report required by this permit or falsifying any result may result in the imposition of criminal penalties as provided for in Section 309 of the Federal Water Pollution Control Act, as amended, and in Section 69-3-115 of the Tennessee Water Quality Control Act.

4. Outlier Data

Outlier data include analytical results that are probably false. The validity of results is based on operational knowledge and a properly implemented quality assurance program. False results may include laboratory artifacts, potential sample tampering, broken or suspect sample containers, sample contamination or similar demonstrated quality control flaw.

Outlier data are identified through a properly implemented quality assurance program, and according to ASTM standards (e.g. Grubbs Test, ‘h’ and ‘k’ statistics). Furthermore, outliers should be verified, corrected, or removed, based on further inquiries into the matter. If an outlier was verified (through repeated testing and/or analysis), it should remain in the preliminary data set. If an outlier resulted from a transcription or similar clerical error, it should be corrected and subsequently reported.

Therefore, only if an outlier was associated with problems in the collection or analysis of the samples and as such does not conform with the Guidelines Establishing Test Procedures for the Analysis of Pollutants (40 CFR §136), it can be removed from the data set and not reported on the Discharge Monitoring Report forms (DMRs). Otherwise, all results (including monitoring of pollutants more frequently than required at the location(s) designated, using approved analytical methods as specified in the permit) should be included in the calculation and reporting of the values required in the DMR form. You are encouraged to use “comment” section of the DMR form (or attach additional pages), in order to explain any potential outliers or dubious results.

F. SCHEDULE OF COMPLIANCE

Full compliance and operational levels shall be attained from the effective date of this permit.

PART II

A. GENERAL PROVISIONS

1. Duty to Reapply

Permittee is not authorized to discharge after the expiration date of this permit. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit such information and forms as are required to the Director of Water Resources (the "Director") no later than 180 days prior to the expiration date. Such applications must be properly signed and certified.

2. Right of Entry

The permittee shall allow the Director, the Regional Administrator of the U.S. Environmental Protection Agency, or their authorized representatives, upon the presentation of credentials:

a. To enter upon the permittee's premises where an effluent source is located or where records are required to be kept under the terms and conditions of this permit, and at reasonable times to copy these records;

b. To inspect at reasonable times any monitoring equipment or method or any collection, treatment, pollution management, or discharge facilities required under this permit; and

c. To sample at reasonable times any discharge of pollutants.

3. Availability of Reports

Except for data determined to be confidential under Section 308 of the Federal Water Pollution Control Act, as amended, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Division of Water Resources. As required by the Federal Act, effluent data shall not be considered confidential.

4. Proper Operation and Maintenance

a. The permittee shall at all times properly operate and maintain all facilities and systems (and related appurtenances) for collection and treatment which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes adequate laboratory and process controls and appropriate quality assurance

procedures. This provision requires the operation of backup or auxiliary facilities or similar systems, which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit. Backup continuous pH and flow monitoring equipment are not required.

b. Dilution water shall not be added to comply with effluent requirements to achieve BCT, BPT, BAT and or other technology-based effluent limitations such as those in State of Tennessee Rule 0400-04-05-.09.

5. Treatment Facility Failure

The permittee, in order to maintain compliance with this permit, shall control production, all discharges, or both, upon reduction, loss, or failure of the treatment facility, until the facility is restored or an alternative method of treatment is provided. This requirement applies in such situations as the reduction, loss, or failure of the primary source of power.

6. Property Rights

The issuance of 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 private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

7. Severability

The provisions of this permit are severable. If any provision of this permit due to any circumstance, is held invalid, then the application of such provision to other circumstances and to the remainder of this permit shall not be affected thereby.

8. Other Information

If the permittee becomes aware that he 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, then he shall promptly submit such facts or information.

B. CHANGES AFFECTING THE PERMIT

1. Planned Changes

The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or

b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42(a)(1).

2. Permit Modification, Revocation, or Termination

a. This permit may be modified, revoked and reissued, or terminated for cause as described in 40 CFR 122.62 and 122.64, Federal Register, Volume 49, No. 188 (Wednesday, September 26, 1984), as amended.

b. The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

c. If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established for any toxic pollutant under Section 307(a) of the Federal Water Pollution Control Act, as amended, the Director shall modify or revoke and reissue the permit to conform to the prohibition or to the effluent standard, providing that the effluent standard is more stringent than the limitation in the permit on the toxic pollutant. The permittee shall comply with these effluent standards or prohibitions within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified or revoked and reissued to incorporate the requirement.

d. The filing of a request by the permittee for a modification, revocation, reissuance, termination, or notification of planned changes or anticipated noncompliance does not halt any permit condition.

3. Change of Ownership

This permit may be transferred to another party (provided there are neither modifications to the facility or its operations, nor any other changes which might affect the permit limits and conditions contained in the permit) by the permittee if:

a. The permittee notifies the Director of the proposed transfer at least 30 days in advance of the proposed transfer date;

b. The notice includes a written agreement between the existing and new permittees containing a specified date for transfer of permit responsibility, coverage, and liability between them; and

c. The Director, within 30 days, does not notify the current permittee and the new permittee of his intent to modify, revoke or reissue, or terminate the permit and to require that a new application be filed rather than agreeing to the transfer of the permit.

Pursuant to the requirements of 40 CFR 122.61, concerning transfer of ownership, the permittee must provide the following information to the division in their formal notice of intent to transfer ownership: 1) the NPDES permit number of the subject permit; 2) the effective date of the proposed transfer; 3) the name and address of the transferor; 4) the name and address of the transferee; 5) the names of the responsible parties for both the transferor and transferee; 6) a statement that the transferee assumes responsibility for the subject NPDES permit; 7) a

statement that the transferor relinquishes responsibility for the subject NPDES permit; 8) the signatures of the responsible parties for both the transferor and transferee pursuant to the requirements of 40 CFR 122.22(a), “Signatories to permit applications”; and, 9) a statement regarding any proposed modifications to the facility, its operations, or any other changes which might affect the permit limits and conditions contained in the permit.

4. Change of Mailing Address

The permittee shall promptly provide to the Director written notice of any change of mailing address. In the absence of such notice the original address of the permittee will be assumed to be correct.

C. NONCOMPLIANCE

1. Effect of Noncompliance

All discharges shall be consistent with the terms and conditions of this permit. Any permit noncompliance constitutes a violation of applicable State and Federal laws and is grounds for enforcement action, permit termination, permit modification, or denial of permit reissuance.

2. Reporting of Noncompliance

a. 24-Hour Reporting

In the case of any noncompliance which could cause a threat to public drinking supplies, or any other discharge which could constitute a threat to human health or the environment, the required notice of non-compliance shall be provided to the Division of Water Resources in the appropriate regional Field Office within 24-hours from the time the permittee becomes aware of the circumstances. (The regional Field Office should be contacted for names and phone numbers of environmental response personnel).

A written submission must be provided within five calendar days of the time the permittee becomes aware of the circumstances, unless this requirement is waived by the Director on a case-by-case basis. The permittee shall provide the Director with the following information:

i. A description of the discharge and cause of noncompliance;

ii. The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue; and

iii. The steps being taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.

b. Scheduled Reporting

For instances of noncompliance which are not reported under subparagraph 2.a. above, the permittee shall report the noncompliance on the Discharge Monitoring Report. The report shall contain all information concerning the steps taken, or planned, to reduce, eliminate, and prevent recurrence of the violation and the anticipated time the violation is expected to continue.

3. Sanitary Sewer Overflow

a. "***Sanitary Sewer Overflow***" means the discharge to land or water of wastes from any portion of the collection, transmission, or treatment system other than through permitted outfalls.

b. Sanitary Sewer Overflows are prohibited.

c. The permittee shall operate the collection system so as to avoid sanitary sewer overflows. No new or additional flows shall be added upstream of any point in the collection system, which experiences chronic sanitary sewer overflows (greater than 5 events per year) or would otherwise overload any portion of the system.

d. Unless there is specific enforcement action to the contrary, the permittee is relieved of this requirement after: 1) an authorized representative of the Commissioner of the Department of Environment and Conservation has approved an engineering report and construction plans and specifications prepared in accordance with accepted engineering practices for correction of the problem; 2) the correction work is underway; and 3) the cumulative, peak-design, flows potentially added from new connections and line extensions upstream of any chronic overflow point are less than or proportional to the amount of inflow and infiltration removal documented upstream of that point. The inflow and infiltration reduction must be measured by the permittee using practices that are customary in the environmental engineering field and reported in an attachment to a Monthly Operating Report submitted to the regional TDEC Field Office. The data measurement period shall be sufficient to account for seasonal rainfall patterns and seasonal groundwater table elevations.

e. In the event that more than five (5) sanitary sewer overflows have occurred from a single point in the collection system for reasons that may not warrant the self-imposed moratorium or completion of the actions identified in this paragraph, the permittee may request a meeting with the Division of Water Resources field office staff to petition for a waiver based on mitigating evidence.

4. Upset

a. "***Upset***" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based effluent 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.

b. An upset shall constitute an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the permittee demonstrates, through properly signed, contemporaneous operating logs, or other relevant evidence that:

i. An upset occurred and that the permittee can identify the cause(s) of the upset;

ii. The permitted facility was at the time being operated in a prudent and workman-like manner and in compliance with proper operation and maintenance procedures;

iii. The permittee submitted information required under "Reporting of Noncompliance" within 24-hours of becoming aware of the upset (if this information is provided orally, a written submission must be provided within five days); and

iv. The permittee complied with any remedial measures required under "Adverse Impact."

5. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to the waters of Tennessee resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

6. Bypass

a. "***Bypass***" is the intentional diversion of wastewater away from any portion of a treatment facility. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which would cause 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.

b. Bypasses are prohibited unless the following 3 conditions are met:

i. The bypass is unavoidable to prevent loss of life, personal injury, or severe property damage;

ii. There are not feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment down-time. 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 down-time or preventative maintenance;

iii. The permittee submits notice of an unanticipated bypass to the Division of Water Resources in the appropriate environmental assistance center within 24-hours of becoming aware of the bypass (if this information is provided orally, a written submission must be provided within five days). When the need for the bypass is foreseeable, prior notification shall be submitted to the Director, if possible, at least 10 days before the date of the bypass.

c. Bypasses not exceeding limitations are allowed **only** if the bypass is necessary for essential maintenance to assure efficient operation. All other bypasses are prohibited. Allowable bypasses not exceeding limitations are not subject to the reporting requirements of 6.b.iii, above.

7. Washout

a. For domestic wastewater plants only, a "washout" shall be defined as loss of Mixed Liquor Suspended Solids (MLSS) of 30.00% or more. This refers to the MLSS in the aeration basin(s) only. This does not include MLSS decrease due to solids wasting to the sludge disposal system. A washout can be caused by improper operation or from peak flows due to infiltration and inflow.

b. A washout is prohibited. If a washout occurs the permittee must report the incident to the Division of Water Resources in the appropriate regional Field Office within 24-hours by telephone. A written submission must be provided within 5 days. The washout must be noted on the discharge monitoring report. Each day of a washout is a separate violation.

D. LIABILITIES

1. Civil and Criminal Liability

Except as provided in permit conditions for "**Bypassing,**" "**Overflow,**" and "**Upset,**" nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Notwithstanding this permit, the permittee shall remain liable for any damages sustained by the State of Tennessee, including but not limited to fish kills and losses of aquatic life and/or wildlife, as a result of the discharge of wastewater to any surface or subsurface waters. Additionally, notwithstanding this Permit, it shall be the responsibility of the permittee to conduct its wastewater treatment and/or discharge activities in a manner such that public or private nuisances or health hazards will not be created.

2. Liability Under State Law

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 established pursuant to any applicable State law or the Federal Water Pollution Control Act, as amended.

PART III

OTHER REQUIREMENTS

A. TOXIC POLLUTANTS

The permittee shall notify the Division of Water Resources as soon as it knows or has 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 substance(s) (listed at 40 CFR 122, Appendix D, Table II and III) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

    a. One hundred micrograms per liter (100 ug/l);

    b. Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;

    c. Five (5) times the maximum concentration value reported for that pollutant(s) in the permit application in accordance with 122.21(g)(7); or

    d. The level established by the Director in accordance with 122.44(f).

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 (500 ug/l);

    b. One milligram per liter (1 mg/L) for antimony;

    c. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 122.21(g)(7); or

    d. The level established by the Director in accordance with 122.44(f).

B. REOPENER CLAUSE

If an applicable standard or limitation is promulgated under Sections 301(b)(2)(C) and (D), 304(B)(2), and 307(a)(2) and that effluent standard or limitation is more stringent than any effluent limitation in the permit or controls a pollutant not limited in the permit, the permit shall be promptly modified or revoked and reissued to conform to that effluent standard or limitation.

C. PLACEMENT OF SIGNS

Within sixty (60) days of the effective date of this permit, the permittee shall place and maintain a sign(s) at each outfall and any bypass/overflow point in the collection system. For the purposes of this requirement, any bypass/overflow point that has discharged five (5) or more times in the last year must be so posted. The sign(s) should be clearly visible to the public from the bank and the receiving stream or from the nearest public property/right-of-way, if applicable. The minimum sign size should be two feet by two feet (2' x 2') with one inch (1") letters. The sign should be made of durable material and have a white background with black letters.

The sign(s) are to provide notice to the public as to the nature of the discharge and, in the case of the permitted outfalls, that the discharge is regulated by the Tennessee Department of Environment and Conservation, Division of Water Resources. The following is given as an example of the minimal amount of information that must be included on the sign:

TREATED INDUSTRIAL WASTEWATER AND STORMWATER
Albemarle U.S., Inc
(Permittee's Phone Number)
NPDES Permit NO. TN0062537
TENNESSEE DIVISION OF WATER RESOURCES
1-888-891-8332 ENVIRONMENTAL FIELD OFFICE - Nashville

INDUSTRIAL STORM WATER RUNOFF
Albemarle U.S., Inc
(Permittee's Phone Number)
NPDES Permit NO. TN0062537
TENNESSEE DIVISION OF WATER RESOURCES
1-888-891-8332 ENVIRONMENTAL FIELD OFFICE - Nashville

D. ANTIDEGRADATION

Pursuant to the Rules of the Tennessee Department of Environment and Conservation, Chapter 0400-04-03-.06, titled “Tennessee Antidegradation Statement,” which prohibits the degradation of high quality surface waters and the increased discharges of substances that cause or contribute to impairment, the permittee shall further be required, pursuant to the terms and conditions of this permit, to comply with the effluent limitations and schedules of compliance required to implement applicable water quality standards, to comply with a State Water Quality Plan or other state or federal laws or regulations, or where practicable, to comply with a standard permitting no discharge of pollutants.

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PART IV

STORM WATER POLLUTION PREVENTION PLAN

The discharger will develop, document and maintain a storm water pollution prevention plan (SWPPP) pursuant to the requirements as set forth in the Tennessee Multi-Sector General Permit for Industrial Activities, Sector C, "Storm Water Discharges Associated With Industrial Activity From Chemical and Allied Products Manufacturing Facilities", Part 3, "Storm Water Pollution Prevention Plan Requirements", applicable to Chemical and Allied Products Manufacturing Facilities. The plan shall be signed by either a principal executive officer of a corporation, the owner or proprietor of a sole proprietorship, or a partner or general partner of a partnership. The SWPPP developed and implemented shall contain, in addition to the requirements listed in the Tennessee Multi-Sector SWPPP guidelines for Chemical and Allied Products Manufacturing Facilities, the following items:

A. PLAN IMPLEMENTATION

The plan should be developed and available for review within 30 days after permit coverage. Facilities should implement the management practices as soon as possible, but not later than one year after permit coverage. Where new construction is necessary to implement the management plan, a construction schedule should be included. Construction should be completed as soon as possible.

B. PLAN AVAILABILITY

The plan will be maintained by the discharger on the site or at a nearby office. Copies of the plan will be submitted to the Division of Water Resources within ten business days of any request.

C. PLAN MODIFICATION

The plan will be modified as required by the Director of the Division of Water Resources.

D. MONITORING PLAN

The storm water discharges will be monitored as required in Part I. Section A., Effluent Limits and Monitoring Requirements, applicable to storm water outfalls. For each outfall monitored, the surface area and type of cover, for example, roof, pavement, grassy areas, gravel, will be identified.

ATTACHMENT I

Albemarle U.S., Inc
NPDES Permit TN0062537

Storm Water Pollution Prevention Plan Requirements

3.1 Deadlines for Plan Preparation and Compliance. There are no additional deadlines for plan preparation and compliance, other than those stated in Part 4.1.

Contents of Plan. The plan shall include, at a minimum, the following items:

3.1.1 Pollution Prevention Team. Each plan shall identify a specific individual or individuals within the facility organization as members of a storm water Pollution Prevention Team that are responsible for developing the storm water pollution prevention plan and assisting the facility or plant manager in its implementation, maintenance, and revision. The plan shall clearly identify the responsibilities of each team member. The activities and responsibilities of the team shall address all aspects of the facility's storm water pollution prevention plan.

3.1.2 Description of Potential Pollutant Sources. Each plan shall provide a description of potential sources that may reasonably be expected to add significant amounts of pollutants to storm water discharges or that may result in the discharge of pollutants during dry weather from separate storm sewers draining the facility. Each plan shall identify all activities and significant materials that may potentially be significant pollutant sources. Each plan shall include, at a minimum:

3.1.2.1 Drainage. A site map indicating an outline of the portions of the drainage area of each storm water outfall that are within the facility boundaries, each existing structural control measure to reduce pollutants in storm water runoff, surface water bodies, locations where significant materials are exposed to precipitation, locations where major spills or leaks identified under 3.2.2.3 (spills and leaks) of this permit have occurred, and the locations of the following activities where such activities are exposed to precipitation: fueling stations, vehicle and equipment maintenance and/or cleaning areas, loading/unloading areas, locations used for the treatment, storage or disposal of wastes, liquid storage tanks, processing areas and storage areas including areas where raw materials, finished products and drums are stored. The map must indicate the outfall locations and the types of discharges contained in the drainage areas of the outfalls.

For each area of the facility that generates storm water discharges associated with industrial activity with a reasonable potential for containing significant amounts of pollutants, a prediction of the direction of flow, and an identification of the types of pollutants that are likely to be present in storm water discharges associated with industrial activity. Factors to consider include the toxicity of a chemical; quantity of chemicals used, produced or discharged; the likelihood of contact with storm water; and history of significant leaks or spills of toxic or hazardous pollutants. Flows with a significant potential for causing erosion shall be identified.

3.1.2.2 Inventory of Exposed Materials—An inventory of the types of materials handled at the site that potentially may be exposed to precipitation. Such inventory shall include a narrative description of significant materials that have been handled, treated, stored or disposed in a manner to allow exposure to storm water between the time of 3 years prior to the date of the submission of a Notice of Intent (NOI) to be covered under this permit and the present; method and location of onsite storage or disposal; materials management practices employed to minimize contact of materials with storm water runoff between the time of 3 years prior to the date of the submission of a Notice of Intent (NOI) to be covered under this permit and the

present; the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of any treatment the storm water receives.

3.1.2.3 Spills and Leaks—A list of significant spills and significant leaks of toxic or hazardous pollutants that occurred at areas that are exposed to precipitation or that otherwise drain to a storm water conveyance at the facility after the date of 3 years prior to the date of the submission of a Notice of Intent (NOI) to be covered under this permit. Such list shall be updated as appropriate during the term of the permit.

3.1.2.4 Sampling Data—A summary of existing discharge sampling data describing pollutants in storm water discharges from the facility, including a summary of sampling data collected during the term of this permit.

3.1.2.5 Risk Identification and Summary of Potential Pollutant Sources—A narrative description of the potential pollutant sources from the following activities: loading and unloading operations; outdoor storage activities; outdoor manufacturing or processing activities; significant dust or particulate generating processes; and onsite waste disposal practices. The description shall specifically list any significant potential source of pollutants at the site and for each potential source, any pollutant or pollutant parameter (e.g., biochemical oxygen demand, etc.) of concern shall be identified.

3.2.3 Measures and Controls. Each facility covered by this permit shall develop a description of storm water management controls appropriate for the facility, and implement such controls. The appropriateness and priorities of controls in a plan shall reflect identified potential sources of pollutants at the facility. The description of storm water management controls shall address the following minimum components, including a schedule for implementing such controls:

3.2.3.1 Good Housekeeping—Good housekeeping requires the maintenance of areas that may contribute pollutants to storm water discharges in a clean, orderly manner. Particular attention should be paid to areas where raw materials are stockpiled, material handling areas, storage areas, liquid storage tanks, material handling areas, and loading/unloading areas.

3.2.3.2 Preventive Maintenance—A preventive maintenance program shall involve timely inspection and maintenance of storm water management devices (e.g., cleaning oil/water separators, catch basins) as well as inspecting and testing facility equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters, and ensuring appropriate maintenance of such equipment and systems.

3.2.3.3 Spill Prevention and Response Procedures—Areas where potential spills that can contribute pollutants to storm water discharges can occur, and their accompanying drainage points shall be identified clearly in the storm water pollution prevention plan. Where appropriate, specifying material handling procedures, storage requirements, and use of equipment such as diversion valves in the plan should be considered. Procedures for cleaning up spills shall be identified in the plan and made available to the appropriate personnel. The necessary equipment to implement a clean up should be available to personnel.

3.2.3.4 Inspections—In addition to or as part of the comprehensive site evaluation required under this section, qualified facility personnel shall be identified to inspect designated equipment and areas of the facility at appropriate intervals specified in the plan. Material storage and handling areas, liquid storage tanks, hoppers or silos, vehicle and equipment maintenance, cleaning, and fueling areas, material handling vehicles, equipment and processing areas shall be inspected at least once per month as part of the maintenance program. A set of tracking or follow-up procedures shall be used to ensure that appropriate actions are taken in response to the inspections. Records of inspections shall be maintained.

3.2.3.5 Employee Training—Employee training programs shall inform personnel responsible for implementing activities identified in the storm water pollution prevention plan or otherwise responsible for storm water management at all levels of responsibility of the components and goals of the storm water pollution prevention plan. Training should address topics such as spill response, good housekeeping and material management practices. The pollution prevention plan shall identify periodic dates for such training.

3.2.3.6 Recordkeeping and Internal Reporting Procedures—A description of incidents (such as spills, or other discharges), along with other information describing the quality and quantity of storm water discharges shall be included in the plan required under this part. Inspections and maintenance activities shall be documented and records of such activities shall be incorporated into the plan.

3.2.3.7 Non-storm Water Discharges

3.2.3.7.1 The plan shall include a certification that the discharge has been tested or evaluated for the presence of non-storm water discharges. The certification shall include the identification of potential significant sources of non-storm water at the site, a description of the results of any test and/or evaluation for the presence of non-storm water discharges, the evaluation criteria or testing method used, the date of any testing and/or evaluation, and the onsite drainage points that were directly observed during the test. Certifications shall be signed in accordance with Part 7.7 of this permit. Such certification may not be feasible if the facility operating the storm water discharge associated with industrial activity does not have access to an outfall, manhole, or other point of access to the ultimate conduit that receives the discharge. In such cases, the source identification section of the storm water pollution prevention plan shall indicate why the certification required by this part was not feasible, along with the identification of potential significant sources of non-storm water at the site. A discharger that is unable to provide the certification required by this paragraph must notify the Division of Water Resources in accordance with paragraph 3.2.3.7.3 “Failure to Certify” (below).

3.2.3.7.2 Sources of non-storm water that are combined with storm water discharges associated with industrial activity must be identified in the plan. The plan shall identify and ensure the implementation of appropriate pollution prevention measures for the non-storm water component(s) of the discharge. Any non-storm water discharges that are not authorized under this permit or another NPDES permit should be brought to the attention of the division’s local Environmental Field Office.

3.2.3.7.3 Failure to Certify—Any facility that is unable to provide the certification required (testing for non-storm water discharges), must notify the Division of Water Resources not later than 180 days after submitting an NOI to be covered by this permit. If the failure to certify is caused by the inability to perform adequate tests or evaluations, such notification shall describe: the procedure of any test conducted for the presence of non-storm water discharges; the results of such test or other relevant observations; potential sources of non-storm water discharges to the storm sewer; and why adequate tests for such storm sewers were not feasible. Non-storm water discharges to waters of the State that are not authorized by an NPDES permit are unlawful, and must be terminated.

3.2.3.8 Sediment and Erosion Control—The plan shall identify areas that, due to topography, activities, or other factors, have a high potential for significant soil erosion, and identify structural, vegetative, and/or stabilization measures to be used to limit erosion.

3.2.3.9 Management of Runoff—The plan shall contain a narrative consideration of the appropriateness of traditional storm water management practices (practices other than those that control the generation or source(s) of pollutants) used to divert, infiltrate, reuse, or otherwise manage storm water runoff in a manner that reduces pollutants in storm water discharges from the site. The plan shall provide that measures that the permittee determines to be reasonable and appropriate shall be implemented and maintained. The potential of various sources at the facility to contribute pollutants to storm water discharges associated with industrial activity [see paragraph 3.2.2 of this section (Description of Potential Pollutant Sources)] shall be considered when determining reasonable and appropriate measures. Appropriate measures may include: vegetated swales, reuse of collected storm water (such as for a process or as an irrigation source), inlet controls (such as oil/water separators), infiltration devices, and detention/retention basins or other equivalent measures.

3.2.4 Comprehensive Site Compliance Evaluation. Qualified personnel shall conduct site compliance evaluations at appropriate intervals specified in the plan, but in no case less than once a year. Evaluations shall be conducted at least once at portable plant locations that are not in operation for a complete year. Such evaluations shall provide:

3.2.4.1 Areas contributing to a storm water discharge associated with industrial activity including; material storage and handling areas, liquid storage tanks, hoppers or silos, vehicle and equipment maintenance, cleaning, and fueling areas, material handling vehicles, equipment and processing areas, and areas where aggregate is stockpiled outdoors shall be visually inspected for evidence of, or the potential for, pollutants entering the drainage system. Measures to reduce pollutant loadings shall be evaluated to determine whether they are adequate and properly implemented in accordance with the terms of the permit or whether additional control measures are needed. Structural storm water management measures, (e.g., oil/water separators, detention ponds, sedimentation basins or equivalent measures) sediment and erosion control measures, and other structural pollution prevention measures identified in the plan shall be observed to ensure that they are operating correctly. A visual inspection of equipment needed to implement the plan, such as dust collection equipment and spill response equipment, shall be made.

3.2.4.2 Based on the results of the evaluation, the description of potential pollutant sources identified in the plan in accordance with 3.2.2 of this section (description of potential

pollutant sources) and pollution prevention measures and controls identified in the plan in accordance with part 3.2.3 of this section (measures and controls) shall be revised as appropriate within 2 weeks of such evaluation and shall provide for implementation of any changes to the plan in a timely manner, but in no case later than 12 weeks after the evaluation.

3.2.4.3 A report summarizing the scope of the evaluation, personnel making the evaluation, the date(s) of the evaluation, major observations relating to the implementation of the storm water pollution prevention plan, and actions taken in accordance with paragraph (4)(b) (above) of the permit shall be made and retained as part of the storm water pollution prevention plan for at least 3 years after the date of the evaluation. The report shall identify any incidents of noncompliance. Where a report does not identify any incidents of noncompliance, the report shall contain a certification that the facility is in compliance with the storm water pollution prevention plan and this permit. The report shall be signed in accordance with Part 7.7 (Signatory Requirements) of this permit.

3.2.4.4 Where compliance evaluation schedules overlap with inspections, the compliance evaluation may be conducted in place of one such inspection

RATIONALE

Albemarle U.S., Inc.
NPDES PERMIT NO. TN0062537
New Johnsonville, Humphreys County, Tennessee

Permit Writer: Mr. Jack Beach

I. DISCHARGER

Albemarle U.S., Inc.
856 Foote Lane
New Johnsonville, Humphreys County, Tennessee
Site Longitude: -87.981667 Site Latitude: 35.997222

Official Contact Person:
Mr. Darrell Fisher
General Manager
(931) 535-6209

Nature of Business:
Production of butyllithium

SIC Code(s): 2869
Industrial Classification: Primary
Discharger Rating: Minor

PRIMARY INDUSTRY CATEGORY means any industry category listed in the NRDC Settlement Agreement (Natural Resources Defense Council v. Train, 8 ERC 2120 [D.D.C. 1976], modified 12 ERC 1833 [D.D.C. 1979]).

II. PERMIT STATUS

Issued June 30, 2008
Expired June 30, 2013
Application for renewal received December 20, 2012

Watershed Scheduling

Environmental Field Office: Nashville
Hydrocode: 6040005 Watershed Group: 3
Watershed Identification: Tennessee Western Valley (Kentucky Lake)
Target Reissuance Year: 2018

III. FACILITY DISCHARGES AND RECEIVING WATERS

Albemarle U.S., Inc. discharges treated process wastewater, cooling tower blowdown and storm water runoff from Outfall 001 and storm water runoff from Outfall SW2 to Indian Creek Embayment of the Tennessee River via a wet weather conveyance. Appendix 1 summarizes facility discharges and the receiving stream information for Outfalls 001 and SW2. After further review of the facility it seems more fitting to change SW1 from an outfall to an overflow point as it essentially functioned as an internal monitoring point with the only discharges being during significant weather events. This change will be reflected in the permit limits. In the event of a significant weather event, which takes place an average of once every 5-6 years, untreated process wastewater is discharged into the waters of the State. This water is at a higher pH and will experience dilution due to a heavier flow of rainwater. As a result of this, the division has determined this to be an overflow point with report-only requirements. The abbreviation of SW1 will no longer be used, but reserved in the event that it should need to be reinstated.

The facility is requesting to discharge process wastewater containing toluene to Outfall 001. They are adding a new operation to clean, deactivate and refurbish 250- and 430-gallon steel storage tanks. The containers previously held methylaluminoxane (MAO) in a toluene solvent. The residual wash water from the cleaning operation contains trace amounts of the toluene solvent. They have provided a maximum daily value of 50 µg/L, as a conservative estimate, using three samples collected from the deactivation process. The instream water quality standard for toluene is 1,000 µg/L. The expected concentrations are well below the instream water quality standard so this permit regulates toluene as report-only.

IV. APPLICABLE EFFLUENT LIMITATIONS GUIDELINES

The Standard Industrial Classification (SIC) code for Albemarle U.S., Inc. is 2869 (Industrial Organic Chemicals, Not Elsewhere Classified). Appendix 2 lists the applicable effluent limitations guidelines associated with the permitted outfalls. Albemarle U.S., Inc. is classified as a Primary Industrial permittee and a Minor discharger of process and nonprocess wastewater. The process wastewater is discharged through Outfall 001 and effluent limited per 40 CFR Part 414: Organic Chemicals, Plastics, and Synthetic Fibers (OCPSF), Subpart H: *Specialty Organic Chemicals*. Considering that the facility's annual production is less than five million pounds of OCPSF products per year, 40 CFR Parts 414.91 and 414.101 are not applicable.

There are currently no effluent limitations guidelines for the discharge of uncontaminated cooling water and storm water runoff from the facility. Standards of performance are therefore established in accordance with existing state regulations using available treatability information.

V. PREVIOUS PERMIT LIMITS AND MONITORING REQUIREMENTS

Appendix 3 lists the permit limitations and monitoring requirements as defined in the previous permit.

VI. HISTORICAL MONITORING AND INSPECTION

During the previous permit term, Albemarle U.S., Inc. did not have any appreciable difficulty in meeting effluent limitations as outlined in the previous permit. A summary of the data reported on Discharge Monitoring Report forms during the previous permit term is summarized in Appendix 4.

VII. NEW PERMIT LIMITS AND MONITORING REQUIREMENTS

The proposed new permit limits have been selected by determining a technology-based limit and evaluating if that limit protects the water quality of the receiving stream. If the technology-based limit would cause violations of water quality, the water quality-based limit is chosen. The technology-based limit is determined from EPA effluent limitations guidelines if applicable (see Part IV); or from State of Tennessee maximum effluent limits for effluent limited segments per Rule 0400-40-05-.08; or by way of operational and/or treatability data. Furthermore, effluent limitations in this permit must comply with any approved Total Maximum Daily Load (TMDL) studies. Appendix 5 lists all proposed effluent limitations and monitoring requirements to be included in the new permit. Note that in general, the term “anti-backsliding” refers to a statutory provision that prohibits the renewal, reissuance, or modification of an existing NPDES permit that contains effluents limits, permit conditions, or standards that are less stringent than those established in the previous permit.

Application Data

The application data was reviewed and compared to the division’s applicable water quality standards. The reasonable potential to violate water quality was not present based on the sampling data. The facility did report a sampling result for cyclohexane of 0.0019 mg/L. EPA’s ECOTOX data reports the fathead minnow LC50 for cyclohexane as 35 mg/L therefore monitoring for cyclohexane will not be added to the permit.

The flow rate for this permit application was listed as 0.0619 MGD which was an increase from the previous permit flow rate of 0.041 MGD. The average concentrations for BOD5 (9 mg/L) and TSS (10 mg/L) will have a negligible effect on the stream. Additionally, a majority of the metals and other parameters sampled in the application were non-detect. The division considers the increase in flow to meet the definition of de minimis.

Flow

Monitoring of flow quantifies the load of pollutants to the stream. Flow shall be reported in Million Gallons per Day (MGD) and monitored at the time of sample collection.

Total Suspended Solids (TSS)

The State of Tennessee Water Quality Standards for the protection of Fish & Aquatic Life [Chapter 0400-40-03-.03(3) (c)] state there shall be no distinctly visible solids, scum, foam, oily slick, or the formation of slimes, bottom deposits or sludge banks of such size or character that may be detrimental to fish and aquatic life in the receiving stream.

Total suspended solids is a general indicator of the quality of a wastewater and will be limited in this permit. The previous permit’s technology-based limit for TSS of 40 mg/L is more

stringent than the federal effluent guidelines in Appendix 2. The previous permit limits will be retained in the new permit. Considering the nature of wastewater collection and discharge system, the sample type will be grab.

pH

According to the State of Tennessee Water Quality Standards [Chapter 0400-40-03-.03(3) (b)], the pH for the protection of Fish and Aquatic Life shall lie within the range of 6.5 to 9.0 for larger rivers and shall not fluctuate more than 1.0 unit in this range over a period of 24-hours. Considering that the receiving stream will provide some buffering capacity, effluent limitation for pH will be retained in a range 6.0 to 9.0. The sample type will be grab.

BOD5

BOD5 (Biochemical Oxygen Demand, 5-day) is a test which measures the reduction of dissolved oxygen during the biodegradation of organic matter in a specific volume of water. The State of Tennessee's general water quality criteria does not list a maximum amount for BOD 5. In 40 CFR 414.83 Subpart H - Specialty Organic Chemicals, it lists a monthly average effluent limitation of 45 mg/L. The permit limit for BOD of 45 mg/l is taken from the previous permit. This limit will continue to be required in the new permit. Considering the nature of wastewater collection and discharge system, the sample type will be grab.

Lithium

Lithium compounds are the primary manufacturing product, and some amounts of lithium hydroxide are contained in the effluent. The pH of the receiving stream may be affected by the hydroxide ion therefore a pH limitation is required for this outfall. Lithium carbonate can be slightly toxic to freshwater fish and aquatic invertebrates. Daphnia magna: 48 hour EC50 = 33.2 mg/L [FMC I96-2085] Rainbow trout: 96 hour LC50 = 30.0 mg/L [FMC I96-2086]. Monitoring for lithium will continue to be performed at Outfall 001. The sample type will be grab and the monitoring frequency will be once per year (Annual).

Metals & Toxics

This permit does not limit other metals and toxics that were presented on the permit application because they do not have the reasonable potential to cause violation of water quality standards. Appendix 2A contains calculations demonstrating this and is retained from the previous permit.

Outfalls 001 and SW2

This facility is one which has storm water runoff associated with industrial activity, as defined in 40 CFR 122.26 (b)(14). As stated before, process wastewater and storm water runoff discharged through Outfall 001 cannot be effectively segregated. In order to adequately characterize dry weather and wet weather discharges, two sets of effluent limitations will be established in the new permit. Effluent limitations for the outfall designated as SW2 will represent wet weather discharges from the facility. The definition of wet weather flow can be found in Part I., Section C of this permit.

There are no effluent guidelines for storm water discharges from the Albemarle U.S., Inc. facility. The previous permit did not have effluent limitations for the facility's storm water

runoff. All parameters were monitored on a “Report” only basis. Similarly, the new permit will not establish effluent limitations, but will require reporting of effluent characteristics at Outfall SW2. Nevertheless, certain “cut-off concentrations” will be established for each of the monitored parameters.

The division is not assigning limits for these parameters at this time since it is the intent of the division that the permittee institutes a Storm Water Pollution Prevention Plan (SWPPP) in order to minimize the discharge of these pollutants from storm water outfalls. It is the opinion of the division that the best method for dealing with potential pollution associated with storm water discharges from the Albemarle U.S., Inc. facility is through implementation of an aggressive SWPPP, coupled with discharge monitoring to verify SWPPP effectiveness. Monitoring of storm water runoff from Outfall SW2 will be required for Flow, Biochemical Oxygen Demand (BOD-5 day), Total Suspended Solids (TSS), Oil & Grease, and pH on a semi-annual basis.

In order to assist the permittee in the evaluation of the effectiveness of the SWPPP, benchmark values developed for the Tennessee Storm Water Multi-Sector General Permit for Industrial Activities are provided herein for comparison. These benchmark values (cut-off concentrations) were developed by the EPA and the State of Tennessee and are based on data submitted by similar industries for the development of the multi-sector general storm water permit. The cut-off concentrations are target values and should not be construed to represent permit limits.

Parameters of Concern	Cut-Off Concentration [mg/L]
BOD (5-Day)	***30***
Total Suspended Solids (TSS)	***150***
Oil & Grease	***15***
pH (range)	***5.0 - 9.0***

Note: Sample values are from the Tennessee Storm Water Multi-Sector General Permit for Industrial Activities, Rationale, Part III, Table III-A: *Parameter Benchmark Values*.

According to the U.S. EPA “NPDES Permit Writer’s Manual” (Office of Water, EPA-883-B-96-003, December 1996, Page 123), “grab” samples should be used when the quality and flow of the waste stream being sampled is not likely to change over time. Generally, for storm water runoff samples, a grab sample is considered adequate for effluents from holding ponds or other impoundments with a retention period of greater than 24-hours (Instructions - EPA Form 3510-2F: Application for Permit to Discharge Storm Water Associated with Industrial Activity, Item VII, General Instructions, Page I-3).

The division recognizes that a “first flush” sample would be the most accurate representation of the maximum daily value for various pollutants in the storm water runoff. Furthermore, storm water sampling requirements included in the TMSP require analysis of grab samples collected within the first 30 minutes (or as soon thereafter as practical, but not to exceed one hour) of when the runoff or snowmelt begins discharging. Every effort should be made to collect a “first flush” sample representative of the daily maximum values for sampled parameters.

The permit will contain a Storm Water Pollution Prevention Plan (SWPPP) developed to regulate storm water runoff. This SWPPP is meant to ensure that runoff from the facility site is not a significant source of pollution to the receiving stream. The discharger will develop,

document and maintain the SWPPP pursuant to the requirements as set forth in the Tennessee's Storm Water Multi-Sector General Permit for Industrial Activities, Sector C, "*Storm Water Discharges Associated with Industrial Activity from Chemical and Allied Products Manufacturing Facilities*", Part 3, "Storm Water Pollution Prevention Plan Requirements", as included in the ATTACHMENT I of this permit. The effectiveness of this SWPPP will be investigated after the results of the storm water runoff monitoring have been submitted. At that time, should the results so dictate, the division maintains the authority to institute specific numeric limitations for the monitored parameters.

IX. ANTIDEGRADATION

Tennessee's Antidegradation Statement is found in the Rules of the Tennessee Department of Environment and Conservation, Chapter 0400-04-03-.06. It is the purpose of Tennessee's standards to fully protect existing uses of all surface waters as established under the Act. Stream determinations for this permit action are associated with the waterbody segment identified by the division as segment ID#TN06040005020_1000. The division has made a determination of the receiving waters associated with the subject discharge(s) and has found the (stream or river) to be an Exceptional Tennessee Water. No permanent degradation of water quality will be allowed unless the applicant demonstrates to the Water Quality Control Board that the degradation is for necessary economic or social development and will not interfere with or become injurious to any existing uses. The specific requirements for this demonstration are described in the Rules of the Tennessee Department of Environment and Conservation, Chapter 0400-04-03-.06(4). Further discussion should be included here to describe the permittee's specific argument and the board's determination.

Tennessee's Antidegradation Statement is found in the Rules of the Tennessee Department of Environment and Conservation, Chapter 0400-04-03-.06. This statement outlines the criteria for Exceptional Tennessee Waters. The Tennessee River (Kentucky Reservoir) is designated as an Exceptional Tennessee Water from Pickwick Dam in Harden County to Bass Bay in Benton County. The basis for the designation is the oberservation of both federally endangered species (White Wartyback, Rough Pigtoe, Cracking Pearlymussel, Eastern Fanshell Pearlymussel, Clubshell, Orange-foot Pimpleback, Ring Pink and Pink Mucket) and state endangered species (Sweetscent Ladies'-Tresses, state threatened Blue Sucker and Short-Beaked Arrowhead).

On January 8, 2013, the permittee submitted an analysis of reasonable alternatives to the continued treated wastewater discharge into the receiving stream. The analysis included the following alternatives:

Alternative 1- No action- Continue to discharge all treated wastewater into the receiving stream with current discharge parameters.
Alternative 2- Pump the wastewater plant effluent to a nearby wastewater system. Storm water is not allowed into the sanitary system.
Alternative 3- Develop drip dispersal system to land apply the wastewater effluent. Facility does not have sufficient acreage for land application.
Alternative 4- Water reuse/recycling – The operations currently consume low amounts of water. The discharge is only 0.062 MGD.

The Permittee chose alternative 1 as the most cost effective and feasible solution to wastewater disposal at this time.

X. PERMIT DURATION

The proposed limitations meet the requirements of Section 301(b)(2)(A), (C), (D), (E), and (F) of the Clean Water Act as amended. It is the intent of the division to organize the future issuance and expiration of this particular permit such that other permits located in the same watershed and group within the State of Tennessee will be set for issuance and expiration at the same time. In order to meet the target reissuance date for the Tennessee Western Valley (Kentucky Lake) watershed and following the directives for the Watershed Management Program initiated in January, 1996, the permit will be issued to expire in 2018.

APPENDIX 1

FACILITY DISCHARGES AND RECEIVING WATERS

FACILITY DISCHARGES AND RECEIVING WATERS

OUTFALLS 001 and SW1

PROCESS WASTEWATER, NON-CONTACT COOLING WATER AND STORM WATER RUNOFF

OUTFALLS 001 and SW1	
LONGITUDE	LATITUDE
87-58-45	35-59-87

FLOW (MGD)	DISCHARGE SOURCE
0.0619	Process wastewater and non-contact cooling water
Variable	Storm water runoff
	Total area drained: 7.75 acres
	Area of impervious surfaces: 2.25 acres
Variable	**TOTAL DISCHARGE**

RECEIVING STREAM DISCHARGE ROUTE			
the Indian Creek Embayment of the Tennessee River via a wet weather conveyance			
STREAM LOW FLOW (CFS) *	7Q10	1Q10	30Q5
	NA	5,000	15,000
(MGD)	NA	3233	9698

STREAM USE CLASSIFICATIONS (WATER QUALITY)				
FISH	RECREATION	IRRIGATION	LW&W	DOMESTIC
X	X	X	X	X
INDUSTRIAL	NAVIGATION			
X	X			

Outfall 001 Treatment: Floccualation, sedimentation, pH adjustment.

* Stream flows were updated in previous permit reissuance by George Law. The calculations are located in the permit file.

FACILITY DISCHARGES AND RECEIVING WATERS

OUTFALL SW2

INDUSTRIAL STORM WATER RUNOFF

OUTFALL SW2	
LONGITUDE	LATITUDE
87-58-45	35-59-87

FLOW (MGD)	DISCHARGE SOURCE
Variable	Storm water runoff
	Total area drained: 6 acres
	Area of impervious surfaces: 3 acres
Variable	**TOTAL DISCHARGE**

RECEIVING STREAM DISCHARGE ROUTE			
the Indian Creek Embayment of the Tennessee River via a wet weather conveyance			
STREAM LOW FLOW (CFS) *	7Q10	1Q10	30Q5
	NA	5,000	15,000
(MGD)	NA	3233	9698

STREAM USE CLASSIFICATIONS (WATER QUALITY)				
FISH	RECREATION	IRRIGATION	LW&W	DOMESTIC
X	X	X	X	X
INDUSTRIAL	NAVIGATION			
X	X			

* Stream flows were updated in previous permit reissuance by George Law. The calculations are located in the permit file.

APPENDIX 2

APPLICABLE EFFLUENT LIMITATIONS GUIDELINES

ORGANIC CHEMICALS, PLASTICS AND SYNTHETIC FIBERS

CFR PART 414.83
SUBPART H - SPECIALTY ORGANIC CHEMICALS

EFFLUENT CHARACTERISTIC	BAT LIMITATIONS	
	MONTHLY AVG. CONC. (mg/l)	DAILY MAX. CONC. (mg/l)
BOD5	45	120
TSS	57	183
pH	6.0 - 9.0	6.0 - 9.0

APPENDIX 2A

METALS AND TOXICS CONSIDERATIONS

				Dupont	Erachem Comilog	Scepter	Hood Container	Chemetall Foote	Waverly Lagoon
Stream (1Q10)	Stream (30Q5)	Ttl. Susp. Solids	Hardness (as CaCO3)	Discharge Flow Rate	Discharge Flow Rate	Discharge Flow Rate	Discharge Flow Rate	Discharge Flow Rate	Discharge Flow Rate
[MGD]	[MGD]	[mg/l]	[mg/l]	[MGD]	[MGD]	[MGD]	[MGD]	[MGD]	[MGD]
3233	9698	10	60	66.6	0.36	0.044	4.24	0.062	2.0

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	Fish/Aqua. Life Water Quality Criteria	Effluent Fraction	Fish & Aquatic Life WQC (1Q10)	Human Health Water Quality Criteria (30Q5)			Fish & Aquatic Life WQC (1Q10)	Human Health Water Quality Criteria (30Q5)			Total Stream Loading	Dupont	Erachem - Comilog	Scepter	Hood Container	Chemetall Foote	Waverly Lagoon	Remaining Allocation	Remaining Pertcentage
				In-Stream Allowable															
EFFLUENT	Chronic	Dissolved	Chronic	Organisms	Water/Organisms	DWS	Chronic	Organisms	Water/Organisms	DWS	Chronic	Chronic	Chronic	Chronic	Chronic	Chronic	Chronic	Chronic	Chronic
CHARACTERISTIC	[ug/l]	[Fraction]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[lb/day]	[lb/day]	[lb/day]	[lb/day]	[lb/day]	[lb/day]	[lb/day]	[lb/day]	[lb/day]	[lb/day]	[lb/day]	[lb/day]	%
Cadmium *	0.172	0.193	0.895	NA	NA	5.0	24.1	NA	NA	404.4	24.1	0.727	0.01	0.001	0.03	0.117	0.02	23.2	96.25
Copper *	5.788	0.218	26.555	NA	N/A	NA	716.0	NA	NA	NA	716.0	3.56	0.18	0.004	1.38	0.724	0.09	710.1	99.17
Lead *	1.437	0.146	9.847	NA	NA	5.0	265.5	NA	NA	404.4	265.5	1.09	0.0173	0.002	0.71	0.233	0.06	263.4	99.20
Nickel *	33.758	0.206	164.064	4600.0	610.0	100.0	4423.7	372054	49338	8088.1	4423.7	3.96	0.1038	0.004	0.574	0.42	0.09	4418.6	99.88
Silver *	NA	1.000	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.727	0.017	0.002	0.03	0.117	0.13	NA	NA
Zinc *	76.634	0.125	612.884	NA	NA	NA	16525.3	NA	NA	NA	16525.3	3.64	0.002	0.01	5.07	2.33	0.28	16514.0	99.93
Mercury, (T) **	0.770	1.000	0.770	0.051	0.05	2.0	20.8	4	4	161.8	4.0	26.4	0.001	0.0001	0.003	0.047	0.0009	-22.4	-554.09
Chromium III	48.776	0.078	622.191	NA	NA	100.0	16776.3	NA	NA	8088.1	8088.1	1.45	0.0051	0.002	0.405	0.233	0.04	8086.0	99.97
Chromium VI	11.000	1.000	11.000	NA	NA	100.0	296.6	NA	NA	8088.1	296.6	1.45	0.0051	0.002	0.405	0.233	0.04	294.5	99.28
Cyanide (T) **	5.200	1.000	5.200	140.0	140.0	200.0	140.2	11323	11323	16176.3	140.2	1.65	0.017	0.002	0.74	1.168	0.02	136.6	97.43
ANTIMONY	NA	1.000	NA	640.0	5.6	6.0	NA	51764	453	485.3	452.9	3.64	0.006	0.004	1.35	0.233	0.19	447.5	98.80
ARSENIC	150.000	1.000	150.000	10.0	10.0	10.0	4044.5	809	809	808.8	808.8	2.18	0.02	0.004	0.172	0.233	0.09	806.1	99.67
BERYLLIUM	NA	1.000	NA	NA	NA	4.0	NA	NA	NA	323.5	323.5	0.727	0.001	0.001	0.03	23.3	0.01	299.5	92.56
SELENIUM	5.000	1.000	5.000	NA	NA	50.0	134.8	NA	NA	4044.1	134.8	2.18	0.027	0.004	0.128	0.233	0.09	132.2	98.03
THALLIUM	NA	1.000	NA	0.5	0.2	2.0	NA	38	19	161.8	19.4	2.18	0.003	0.004	0.14	0.233	0.23	16.6	85.63

* Denotes metals for which Fish & Aquatic Life Criteria are expressed as a function of total hardness. The Fish & Aquatic Life criteria for this metal are in the dissolved form at laboratory conditions. The in-stream allowable criteria and calculated effluent concentrations are in the total recoverable form.

** The criteria for these parameters are in the total form.

NOTE: Water Quality criteria for stream use classifications other than Fish & Aquatic Life are based on the 30Q5 flow.

				Dupont	Erachem Comilog	Scepter	Hood Container	Chemetall Foote	Waverly Lagoon
Stream (1Q10)	Stream (30Q5)	Ttl. Susp. Solids	Hardness (as CaCO3)	Discharge Flow Rate	Discharge Flow Rate	Discharge Flow Rate	Discharge Flow Rate	Discharge Flow Rate	Discharge Flow Rate
[MGD]	[MGD]	[mg/l]	[mg/l]	[MGD]	[MGD]	[MGD]	[MGD]	[MGD]	[MGD]
3233	9698	10	60	66.6	0.36	0.044	4.24	0.062	2.0

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	Fish/Aqua. Life Water Quality Criteria	Effluent Fraction	Fish & Aquatic Life WQC (1Q10)	Human Health Water Quality Criteria (30Q5)			Fish & Aquatic Life WQC (1Q10)	Human Health Water Quality Criteria (30Q5)			Total Stream Loading	Dupont	Erachem - Comilog	Scepter	Hood Container	Chemetall Foote	Waverly Lagoon	Remaining Allocation	Remaining Pertcentage
				In-Stream Allowable															
EFFLUENT	Acute	Dissolved	Acute	Organisms	Water/Organisms	DWS	Acute	Organisms	Water/Organisms	DWS	Acute	Acute	Acute	Acute	Acute	Acute	Acute	Acute	Acute
CHARACTERISTIC	[ug/l]	[Fraction]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[lb/day]	[lb/day]	[lb/day]	[lb/day]	[lb/day]	[lb/day]	[lb/day]	[lb/day]	[lb/day]	[lb/day]	[lb/day]	[lb/day]	%
Cadmium *	1.225	0.193	6.355	NA	NA	10.0	171.4	NA	NA	808.8	171.4	0.727	0.01	0.001	0.03	0.117	0.06	170.4	99.45
Copper *	8.305	0.218	38.103	NA	NA	NA	1027.4	NA	NA	NA	1027.4	3.56	0.18	0.004	1.38	0.724	0.25	1021.3	99.41
Lead *	36.877	0.146	252.691	NA	NA	10.0	6813.4	NA	NA	808.8	808.8	1.09	0.0173	0.002	0.71	0.233	0.28	806.5	99.71
Nickel *	303.935	0.206	1477.137	9200.0	1220.0	200.0	39828.4	744108	98675	16176.3	16176.3	3.96	0.1038	0.004	0.574	0.42	0.25	16171.0	99.97
Silver *	1.336	1.000	1.336	NA	NA	NA	36.0	NA	NA	NA	36.0	0.727	0.017	0.002	0.03	0.117	0.66	34.5	95.69
Zinc *	76.012	0.125	607.911	NA	NA	NA	16391.2	NA	NA	NA	16391.2	3.64	0.002	0.01	5.07	2.33	0.83	16379.4	99.93
Mercury, (T) **	1.400	1.000	1.400	0.1	0.1	4.0	37.7	8	8	323.5	8.1	26.4	0.001	0.0001	0.003	0.047	0.0025	-18.4	-227.07
Chromium III	374.973	0.078	4783.162	NA	NA	200.0	128969.5	NA	NA	16176.3	16176.3	1.45	0.0051	0.002	0.405	0.233	0.13	16174.0	99.99
Chromium VI	16.000	1.000	16.000	NA	NA	200.0	431.4	NA	NA	16176.3	431.4	1.45	0.0051	0.002	0.405	0.233	0.13	429.2	99.48
Cyanide (T) **	22.000	1.000	22.000	280.0	280.0	400.0	593.2	22647	22647	32352.5	593.2	1.65	0.017	0.002	0.74	1.168	0.06	589.6	99.39
ANTIMONY	NA	1.000	NA	1280.0	11.2	12.0	NA	103528	906	970.6	905.9	3.64	0.006	0.004	1.35	0.233	0.58	900.1	99.36
ARSENIC	340.000	1.000	340.000	20.0	20.0	20.0	9167.5	1618	1618	1617.6	1617.6	2.18	0.02	0.004	0.172	0.233	0.25	1614.8	99.82
BERYLLIUM	NA	1.000	NA	NA	NA	8.0	NA	NA	NA	647.1	647.1	0.727	0.001	0.001	0.03	23.3	0.03	623.0	96.28
SELENIUM	20.000	1.000	20.000	NA	NA	100.0	539.3	NA	NA	8088.1	539.3	2.18	0.027	0.004	0.128	0.233	0.25	536.4	99.48
THALLIUM	NA	1.000	NA	0.9	0.5	4.0	NA	76	39	323.5	38.8	2.18	0.003	0.004	0.14	0.233	0.96	35.3	90.93

* Denotes metals for which Fish & Aquatic Life Criteria are expressed as a function of total hardness. The Fish & Aquatic Life criteria for this metal are in the dissolved form at laboratory conditions. The in-stream allowable criteria and calculated effluent concentrations are in the total recoverable form.

** The criteria for these parameters are in the total form.

NOTE: Water Quality criteria for stream use classifications other than Fish & Aquatic Life are based on the 30Q5 flow.

Stream (1Q10)	Stream (30Q5)	Waste Flow	Ttl. Susp. Solids	Hardness (as CaCO3)	Margin of Safety
[MGD]	[MGD]	[MGD]	[mg/l]	[mg/l]	[%]
3233	9698	0.360	10	60	50

	1	2	3	5	6	7	8	9	10	11	12	13	14	15
	Stream	Dectection Levels		Fish/Aqua. Life		Calculated Effluent		Human Health Water Quality Criteria (30Q5)						Avg. daily
	Bckgrnd.	Scan	WQC RDL	Water Quality Criteria		Concentration		In-Stream Criteria			Calculated Effluent Concentration			effluent
	Conc.	MDL	*EPA MDL	Chronic	Acute	Chronic	Acute	Organisms	Water/Org	DWS	Organisms	Water/Org	DWS	
PARAMETER	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	ug/l
ACROLEIN	0.0	50.0	1.0					290.0	190.0		3906283.9	2559289.4		<50
ACRYLONITRILE	0.0	50.0	1.0					2.5	0.51		33674.9	6869.7		<10
BENZENE	0.0	1.0	1.0					510.0	22.0	5.0	6869671.7	296338.8	67349.7	<1
BROMOFORM	0.0	1.0	1.0					1400.0	43.0		18857922.2	579207.6		<1
CARBON TETRACHLORIDE	0.0	1.0	1.0					16.0	2.3	5.0	215519.1	30980.9	67349.7	<1
CHLOROBENZENE	0.0	1.0	*					1600.0	130.0		21551911.1	1751092.8		<1
CHLORODIBROMO-METHANE	0.0	1.0	*					130.0	4.0		1751092.8	53879.8		<1
CHLOROETHANE	0.0	1.0	*											<5
2-CHLORO-ETHYLVINYL ETHER	0.0	1.0	*											<5
CHLOROFORM	0.0	5.0	0.5					4700.0	57.0		63308738.9	767786.8		<5
DICHLOROBROMO-METHANE	0.0	1.0	1.0					170.0	5.5		2289890.6	74084.7		<1
1,1-DICHLOROETHANE	0.0	1.0	1.0					NA	NA	NA	NA	NA	NA	<1
1,2-DICHLOROETHANE	0.0	1.0	1.0					370.0	3.8	5.0	4983879.4	51185.8	67349.7	<1
TRANS 1,2-DICHLORO-ETHYLENE	0.0	1.0	*					10000	140.0	100.0	134699444.4	1885792.2	1346994.4	<1
1,1-DICHLOROETHYLENE	0.0	1.0	1.0											<1
1,2-DICHLOROPROPANE	0.0	1.0	*					150.0	5.0	5.0	2020491.7	67349.7	67349.7	<1
1,3-DICHLORO-PROPYLENE	0.0	1.0	1.0					210.0	3.4		2828688.3	45797.8		<1
ETHYLBENZENE	0.0	1.0	1.0					2100	530.0	700.0	28286883.3	7139070.6	9428961.1	<1
METHYL BROMIDE	0.0	1.0	*					1500.0	47.0		20204916.7	633087.4		<5
METHYL CHLORIDE	0.0	1.0	1.0											<5
METHYLENE CHLORIDE	0.0	5.0	1.0					5900.0	46.0		79472672.2	619617.4		<5
1,1,2,2-TETRACHLORO-ETHANE	0.0	1.0	0.5					40.0	1.7		538797.8	22898.9		<1
TETRACHLORO-ETHYLENE	0.0	1.0	0.5					33.0	6.9	5.0	444508.2	92942.6	67349.7	<1
TOLUENE	0.0	1.0	1.0					15000	1300.0	1000.0	202049166.7	17510927.8	13469944.4	<5
1,1,1-TRICHLOROETHANE	0.0	1.0	1.0							200.0			2693988.9	<1
1,1,2-TRICHLOROETHANE	0.0	1.0	0.2					160.0	5.9	5.0	2155191.1	79472.7	67349.7	<1
TRICHLORETHYLENE	0.0	1.0	1.0					300.0	25.0	5.0	4040983.3	336748.6	67349.7	<1
VINYL CHLORIDE	0.0	1.0	2.0					24.0	0.25	2.0	323278.7	3367.5	26939.9	<1
P-CHLORO-M-CRESOL	0.0	10.0	*											<10
2-CHLOROPHENOL	0.0	10.0	*					150.0	81.0		2020491.7	1091065.5		<10
2,4-DICHLOROPHENOL	0.0	10.0	*					290.0	77.0		3906283.9	1037185.7		<10
2,4-DIMETHYLPHENOL	0.0	10.0	*					850.0	380.0		11449452.8	5118578.9		<10
4,6-DINITRO-O-CRESOL	0.0	10.0	24.0					280.0	13.0		3771584.4	175109.3		<10
2,4-DINITROPHENOL	0.0	10.0	42.0					5300.0	69.0		71390705.6	929426.2		<10
2-NITROPHENOL	0.0	10.0	*											<10
4-NITROPHENOL	0.0	10.0	*											<10
PENTACHLOROPHENOL	0.0	10.0	5.0	15	19	67361.7	85324.8	30.0	2.7	1.0	404098.3	36368.9	13469.9	<10
PHENOL	0.0	10.0	*					1700000	21000.0		22898905555.6	282868833.3		<10
2,4,6-TRICHLOROPHENOL	0.0	10.0	2.7					24.0	14.0		323278.7	188579.2		<10
ACENAPHTHENE	0.0	10.0	*					990.0	670.0		13335245.0	9024862.8		<1
ACENAPHTHYLENE	0.0	10.0	2.3											<1
ANTHRACENE	0.0	10.0	0.7					40000	8300.0		538797777.8	111800538.9		<1

a. Columns 7-8, and 12-14 are the effluent concentrations allowable to prevent exceedence of water quality criteria.
b. Potential to exceed criteria exists if the measured quantity in column 15 exceeds, or could exceed, the calculated allowable concentrations in columns 7-8, and 12-14.
c. Additional testing is required if the detection level used in the scan is higher than the state RDL and/or the MDL of the approved EPA scan method and industry is known to have that pollutant.
d. All background concentrations for these volatile organic, acid-extractable, and base-neutral compounds are assumed zero in the absence of supporting monitoring data.
e. Other metals for which data were provided on the application are evaluated on the Metals & Toxics spreadsheet.

Stream (1Q10)	Stream (30Q5)	Waste Flow	Ttl. Susp. Solids	Hardness (as CaCO3)	Margin of Safety
[MGD]	[MGD]	[MGD]	[mg/l]	[mg/l]	[%]
3233	9698	0.360	10	60	50

	1	2	3	5	6	7	8	9	10	11	12	13	14	15
	Stream	Dectection Levels		Fish/Aqua. Life		Calculated Effluent Concentration		Human Health Water Quality Criteria (30Q5)						Avg. daily effluent
	Bckgrnd.	Scan	WQC RDL	Water Quality Criteria				In-Stream Criteria			Calculated Effluent Concentration			
	Conc.	MDL	*EPA MDL	Chronic	Acute	Chronic	Acute	Organisms	Water/Org	DWS	Organisms	Water/Org	DWS	
PARAMETER	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	ug/l
BENZIDINE	0.0	50.0	*					0.0020	0.0009		26.940	11.6		<10
BENZO(A)ANTHRACENE	0.0	10.0	0.3					0.18	0.038		2424.6	511.9		<1
BENZO(A)PYRENE	0.0	10.0	0.3					0.18	0.038	0.2	2424.6	511.9	2694.0	<1
3,4 BENZO-FLUORANTHENE	0.0	10.0	0.3					0.18	0.038		2424.6	511.9		<1
BENZO(GHI)PERYLENE	0.0	10.0	*											<1
BENZO(K)FLUORANTHENE	0.0	10.0	0.3					0.18	0.038		2424.6	511.9		<1
BIS (2-CHLOROETHOXY) METHANE	0.0	10.0	*											<10
BIS (2-CHLOROETHYL)-ETHER	0.0	10.0	1.0					5.3	0.30		71390.7	4041.0		<10
BIS (2-CHLOROISO-PROPYL) ETHER	0.0	10.0	*					65000	1400.0		875546388.9	18857922.2		<10
BIS (2-ETHYLHEXYL) PHTHALATE	0.0	10.0	2.5					22.0	12.0	6.0	296338.8	161639.3	80819.7	<1
4-BROMOPHENYL PHENYL ETHER	0.0	10.0	*											<10
BUTYL BENZYL PHTHALATE	0.0	10.0	*					1900.0	1500.0		25592894.4	20204916.7		<7
2-CHLORONAPHTHALENE	0.0	10.0	*					1600.0	1000.0		21551911.1	13469944.4		<1
4-CHLORPHENYL PHENYL ETHER	0.0	10.0	*											<10
CHRYSENE	0.0	10.0	2.5					0.18	0.038		2424.6	511.9		<1
DI-N-BUTYL PHTHALATE	0.0	10.0	2.5					4500.0	2000.0		60614750.0	26939888.9		<1
DI-N-OCTYL PHTHALATE	0.0	10.0	*											<1
DIBENZO(A,H) ANTHRACENE	0.0	10.0	*					0.18	0.038		2424.6	511.9		<1
1,2-DICHLOROBENZENE	0.0	1.0	2.0					1300.0	420.0		17510927.8	5657376.7		<1
1,3-DICHLOROBENZENE	0.0	5.0	2.0					960.0	320.0		12931146.7	4310382.2		<1
1,4-DICHLOROBENZENE	0.0	5.0	2.0					190.0	63.0		2559289.4	848606.5		<1
3,3-DICHLOROBENZIDINE	0.0	10.0	*					0.28	0.2		3771.6	2828.7		<10
DIETHYL PHTHALATE	0.0	10.0	1.9					44000	17000.0		592677555.6	228989055.6		<1
DIMETHYL PHTHALATE	0.0	10.0	1.6					1100000	270000.0		14816938888.9	3636885000.0		<1
2,4-DINITROTOLUENE	0.0	10.0	1.0					34.0	1.1		457978.1	14816.9		<10
2,6-DINITROTOLUENE	0.0	10.0	*											<10
1,2 DIPHENYLHYDRAZINE	0.0	10.0	*					2.0	0.4		26939.9	4849.2		<10
FLUORANTHENE	0.0	10.0	2.2					140.0	130.0		1885792.2	1751092.8		<1
FLUORENE	0.0	10.0	0.3					5300.0	1100.0		71390705.6	14816938.9		<1
HEXACHLOROBENZENE	0.0	10.0	1.9					0.0029	0.0028	1.0	39.063	37.7	13469.9	<1
HEXACHLOROBUTADIENE	0.0	10.0	5.0					180.0	4.4		2424590.0	59267.8		<10
HEXACHLOROCYCLO-PENTADIENE	0.0	10.0	*					1100.0	40.0	50.0	14816938.9	538797.8	673497.2	<10
HEXACHLOROETHANE	0.0	10.0	0.5					33.0	14.0		444508.2	188579.2		<10
INDENO(1,2,3-CD)PYRENE	0.0	10.0	*					0.18	0.038		2424.6	511.9		<1
ISOPHORONE	0.0	10.0	*					9600	350.0		129311466.7	4714480.6		<10
NAPHTHALENE	0.0	10.0	*											<1
NITROBENZENE	0.0	10.0	10.0					690.0	17.0		9294261.7	228989.1		<10
N-NITROSODI-N-PROPYLAMINE	0.0	10.0	*					5.1	0.050		68696.7	673.5		<10
N-NITROSODI- METHYLAMINE	0.0	10.0	*					30.0	0.0069		404098.3	92.9		<10
N-NITROSODI-PHENYLAMINE	0.0	10.0	*					60.0	33.0		808196.7	444508.2		<10
PHENANTHRENE	0.0	10.0	0.7											<1
PYRENE	0.0	10.0	0.3					4000.0	830.0		53879777.8	11180053.9		<1
1,2,4-TRICHLOROBENZENE	0.0		*					70.0	35.0	70.0	942896.1	471448.1	942896.1	<10

a. Columns 7-8, and 12-14 are the effluent concentrations allowable to prevent exceedence of water quality criteria.
b. Potential to exceed criteria exists if the measured quantity in column 15 exceeds, or could exceed, the calculated allowable concentrations in columns 7-8, and 12-14.
c. Additional testing is required if the detection level used in the scan is higher than the state RDL and/or the MDL of the approved EPA scan method and industry is known to have that pollutant.
d. All background concentrations for these volatile organic, acid-extractable, and base-neutral compounds are assumed zero in the absence of supporting monitoring data.
e. Other metals for which data were provided on the application are evaluated on the Metals & Toxics spreadsheet.

APPENDIX 3

PREVIOUS PERMIT LIMITS AND MONITORING REQUIREMENTS

PERMIT LIMITS

OUTFALL 001

PROCESS AND NON-CONTACT COOLING WATER AND STORM WATER RUNOFF

EFFLUENT CHARACTERISTIC	EFFLUENT LIMITATIONS				MONITORING REQUIREMENTS	
	MONTHLY		DAILY			
	AVG. CONC. (mg/l)	AVG. AMNT. (lb/day)	MAX. CONC. (mg/l)	MAX. AMNT. (lb/day)	MSRMNT. FRQNCY.	SAMPLE TYPE
FLOW	Report (MGD)*		Report (MGD)*		1/Month	Instantaneous
TSS	40	--	40	--	1/Month	Grab
pH *	6.0 - 9.0		6.0 - 9.0		1/Month	Grab
BOD 5	45	--	45	--	1/Month	Grab
Lithium	Report		Report		Annual	Grab

* Flow should be reported in Million Gallons per Day (MGD).
** pH analyses shall be performed within fifteen (15) minutes of sample collection.

PERMIT LIMITS

OUTFALLS SW1 * & SW2

INDUSTRIAL STORM WATER RUNOFF

EFFLUENT CHARACTERISTICS	EFFLUENT LIMITATIONS DAILY		MONITORING REQUIREMENTS	
	MAX. CONC. (mg/l)	MAX. AMNT. (lb/day)	MEASUREMENT FRQNCY.	SAMPLE TYPE
FLOW	Report (MGD)		Semi-annual	Estimate **
OIL & GREASE	Report	--	Semi-annual	Grab ***
BOD 5	Report	--	Semi-annual	Grab ***
pH	Report ****		Semi-annual	Grab ***
TSS	Report	--	Semi-annual	Grab ***

* Outfall SW1 is the name used to represent the storm water characteristics of Outfall 001, SW1 being considered the point where collected storm water leaves the catch basin but before it enters the treatment pond.

** The permittee shall record the date and duration (in hours) of the storm event(s) sampled; rainfall measurements or estimates (in inches) of the storm event that generated the sampled runoff; the duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event. Based on these data, the permittee shall provide an estimate of the total volume (flow) of the discharge sampled. Flow shall be reported in Million Gallons per Day (MGD).

*** Collected within 30 minutes of initiation of flow during a storm event that is greater than 0.1 inches and that occurs after a period of at least 72 hours after any previous storm event with rainfall of 0.1 inches or greater.

**** pH analyses shall be performed within fifteen (15) minutes of sample collection.

APPENDIX 4

HISTORICAL MONITORING AND INSPECTION

Outfall 001

Limit	BOD, 5-day, 20C	BOD, 5-day, 20C	FLOW	FLOW	pH min	pH max	TSS	TSS	LITHIUM	LITHIUM
Limit Unit Desc	mg/l	mg/l	MGD	MGD	SU	SU	mg/l	mg/l	mg/l	mg/l
Statistical Base	DAILY MX	MO AVG	DAILY MX	MO AVG	DAILY MN	DAILY MX	DAILY MX	MO AVG	DAILY MX	MO AVG
Limit Value	**45**	**45**	**REPORT**	**REPORT**	**6**	**9**	**40**	**40**	**REPORT**	**REPORT**
DMR Values										
07/31/2016	NODI 9	NODI 9	NODI 9	NODI 9	NODI 9	NODI 9	NODI 9	NODI 9	NODI 9	NODI 9
08/31/2016	0.00	0.00	0.04	0.04	7.50	7.500	14.80	14.80	NODI 9	NODI 9
09/30/2016	6.65	6.65	0.04	0.04	7.30	7.300	10.00	10.00	NODI 9	NODI 9
10/31/2016	NODI C	NODI C	NODI C	NODI C	NODI C	NODI C	NODI C	NODI C	NODI 9	NODI 9
11/30/2016	NODI C	NODI C	NODI C	NODI C	NODI C	NODI C	NODI C	NODI C	NODI 9	NODI 9
12/31/2016	4.60	4.60	0.04	0.04	7.50	7.500	14.80	14.80	42.00	42.00
01/31/2017	4.90	4.90	0.04	0.04	7.10	7.100	7.20	7.20	NODI 9	NODI 9
02/28/2017	NODI B	NODI B	0.04	0.04	7.00	7.000	17.60	17.60	NODI 9	NODI 9
03/31/2017	3.80	3.80	0.04	0.04	7.40	7.400	14.40	14.40	NODI 9	NODI 9
04/30/2017	6.80	6.80	0.04	0.04	7.20	7.200	7.60	7.60	NODI 9	NODI 9
05/31/2017	NODI B	NODI B	0.04	0.04	7.10	7.100	10.00	10.00	NODI 9	NODI 9
06/30/2017	6.30	6.30	0.04	0.04	7.30	7.300	13.20	13.20	NODI 9	NODI 9
07/31/2017	17.10	17.10	0.04	0.04	7.40	7.400	6.40	6.40	NODI 9	NODI 9
08/31/2017	9.40	9.40	0.04	0.04	7.10	7.100	14.40	14.40	NODI 9	NODI 9
09/30/2017	NODI B	NODI B	0.04	0.04	7.10	7.100	8.25	8.25	NODI 9	NODI 9
10/31/2017	3.80	3.80	0.04	0.04	7.30	7.300	10.60	10.60	NODI 9	NODI 9
11/30/2017	7.20	7.20	0.04	0.04	7.40	7.400	15.70	15.70	NODI 9	NODI 9
12/31/2017	8.20	8.20	0.04	0.04	7.40	7.400	16.00	16.00	177.00	47.60
AVERAGE	**5.99**	**5.99**	**0.04**	**0.04**	**7.30**	**7.30**	**12.27**	**12.27**	**109.50**	**44.80**

NODI B = Below Detection Limit

NODI C = No Discharge

NODI 9 = Not Required this period

Outfall SW1

Limit	Flow	TSS	BOD5	Oil & Grease	pH
Limit Unit Desc	MO AVG	DAILY MAX	DAILY MAX	DAILY MAX	DAILY MAX
Statistical Base	MGD	mg/L	mg/L	mg/L	SU
Limit Value	REPORT	REPORT	REPORT	REPORT	REPORT
DMR Value					
01/31/2014	0.32	130.00	NODI B	6.90	9.30
07/31/2014	0.57	192.00	NODI B	NODI B	9.60
01/31/2015	NODI C	NODI C	NODI C	NODI C	NODI C
07/31/2015	0.50	251.00	NODI B	NODI B	8.90
01/31/2016	0.32	274.00	NODI B	5.96	8.60
07/31/2016	0.90	733.00	8.30	0.00	8.90
01/31/2017	0.62	706.00	7.00	NODI B	9.00
07/31/2017	4.82	704.00	NODI B	NODI B	9.10
AVERAGE	**1.15**	**427.14**	**7.65**	**4.29**	**9.06**

NODI B = Below Detection Limit
NODI C = No Discharge

Outfall SW2

Limit	Flow	TSS	BOD5	Oil & Grease	pH
Limit Unit Desc	DAILY MAX	DAILY MAX	DAILY MAX	DAILY MAX	DAILY MAX
Statistcal Base	MGD	mg/L	mg/L	mg/L	SU
Limit Value	REPORT	REPORT	REPORT	REPORT	REPORT
DMR Value					
01/31/2014	0.6	120.0	NODI B	NODI B	9.0
07/31/2014	0.8	274.0	NODI B	NODI B	9.6
01/31/2015	NODI C	NODI C	NODI C	NODI C	NODI C
07/31/2015	0.3	890.0	NODI B	NODI B	8.4
01/31/2016	0.7	20.0	NODI B	NODI B	8.1
07/31/2016	1.4	657.0	8.3	0.0	8.4
01/31/2017	2.3	423.0	7.0	NODI B	8.2
07/31/2017	4.0	343.0	NODI B	NODI B	8.5
Average	**1.44**	**389.57**	**7.65**	**0.00**	**8.60**

NODI B = Below Detection Limit
NODI C = No Discharge

APPENDIX 5

NEW PERMIT LIMITS AND MONITORING REQUIREMENTS

Description : External Outfall, Number : 001, Monitoring : Effluent Gross, Season : All Year

Parameter	Qualifier	Value	Unit	Sample Type	Frequency	StatisticalBase
BOD, 5-day, 20 C	<=	45.0	mg/L	Grab	Monthly	Daily Maximum
BOD, 5-day, 20 C	<=	45.0	mg/L	Grab	Monthly	Monthly Average
Flow[1]	Report	-	Mgal/d	Instantaneous	Monthly	Monthly Average
Flow	Report	-	Mgal/d	Instantaneous	Monthly	Daily Maximum
Total Suspended Solids (TSS)	<=	40.0	mg/L	Grab	Monthly	Daily Maximum
Total Suspended Solids (TSS)	<=	40.0	mg/L	Grab	Monthly	Monthly Average
pH[2]	>=	6.0	SU	Grab	Monthly	Daily Maximum
pH	<=	9.0	SU	Grab	Monthly	Daily Maximum
Lithium, total (as Li)	Report	-	mg/L	Grab	Annual	Monthly Average
Lithium, total (as Li)	Report	-	mg/L	Grab	Annual	Daily Maximum
Toluene	Report	-	mg/L	Grab	Monthly	Monthly Average
Toluene	Report	-	mg/L	Grab	Monthly	Daily Maximum

Description : External Outfall, Number : SW2, Monitoring : Effluent Gross, Season : All Year

Parameter	Qualifier	Value	Unit	Sample Type	Frequency	Statistical Base
BOD, 5-day, 20 C	Report	-	mg/L	Grab	Semiannual	Daily Maximum
Flow	Report	-	Mgal/d	Estimate	Semiannual	Daily Maximum
Flow	Report	-	Mgal/d	Estimate	Semiannual	Monthly Average
Oil and grease	Report	-	mg/L	Grab	Semiannual	Daily Maximum
Total Suspended Solids (TSS)	Report	-	mg/L	Grab	Semiannual	Daily Maximum
pH	Report	-	SU	Grab	Semiannual	Value

[1] Flow should be reported in Million Gallons per Day (MGD). The permittee shall record the date and duration (in hours) of the storm event(s) sampled; rainfall measurements or estimates (in inches) of the storm event that generated the sampled runoff; the duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event. Based on these data, the permittee shall provide an estimate of the total volume (flow) of the discharge sampled. Flow shall be reported in Million Gallons per Day (MGD).

[2] pH analyses shall be performed within fifteen (15) minutes of sample collection. Collected within 30 minutes of initiation of flow during a storm event that is greater than 0.1 inches and that occurs after a period of at least 72 hours after any previous storm event with rainfall of 0.1 inches or greater.