

**Environmental
Protection Agency**

Ted Strickland, Governor
Lee Fisher, Lt. Governor
Chris Korteski, Director

May 14, 2010

Mr. Richard Novak
Cognis Corporation
4900 Este Avenue
Cincinnati, Ohio 45232-1419

**Re: Cognis Corporation -- OH0137812; 11F00017*BD -- CEI
NOTICE OF VIOLATION**

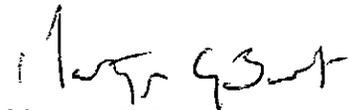
Dear Mr. Novak:

On May 4, 2010, Marianne Piekutowski of this office met with Bruce Tolson to conduct a compliance evaluation inspection (CEI) at the Cognis Corporation facility. The purpose of this inspection was to evaluate compliance with the terms of the NPDES permit. Please note that the report, by its format, tends to highlight negative areas.

As indicated on the attached NPDES Compliance Inspection Report, two of the areas evaluated received a marginal rating, and two areas received a satisfactory rating. The reasons for this rating are provided in the attached report.

Thank you and your staff for the time extended during the inspection. If you have any questions, please contact Ms. Piekutowski of this office at 937.285.6108.

Sincerely,



Martyn G. Burt
Environmental Supervisor
Division of Surface Water

Enclosures

Cc: Bruce Tolson, Cognis Corporation





State of Ohio Environmental Protection Agency
Southwest District Office

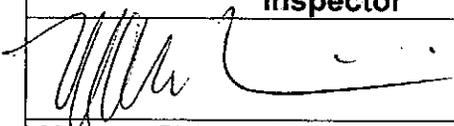
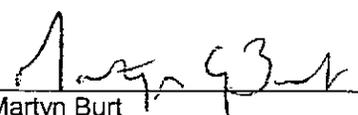
NPDES Compliance Inspection Report

Section A: National Data System Coding					
Permit #	NPDES#	Month/Day/Year	Inspection Type	Inspector	Facility Type
11F00017*BD	OH0137812	05/04/2010	C	S	2

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Cognis Corporation 4900 Este Avenue Cincinnati, Ohio 45232-1419	12:00 pm	12/1/2009(Mod)
	Exit Time	Permit Expiration Date
	3:00 pm	12/28/2013
Name(s) and Title(s) of On-Site Representatives		Phone Number(s)
Bruce Tolson, Safety, Health, & Environment Manager		513.482.3813
Name, Address and Title of Responsible Official		Phone Number
Richard Novak, Director Cognis Corporation 4900 Este Avenue Cincinnati, Ohio 45232-1419		513.482.2100

Section C: Areas Evaluated During Inspection					
(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)					
S	Permit	N	Flow Measurement	N	Pretreatment
N	Records/Reports	N	Laboratory	N	Compliance Schedule
N	Operations & Maintenance	M	Effluent/Receiving Waters	M	Self-Monitoring Program
S	Facility Site Review	N	Sludge Storage/Disposal	N	Other
N	Collection System				

Section D: Summary of Findings (Attach additional sheets if necessary)
See attached report.

Inspector	Reviewer
	
Date 5/14/10	Date 5/14/10
Marianne Piekutowski Division of Surface Water Southwest District Office	Martyn Burt Compliance & Enforcement Supervisor Division of Surface Water Southwest District Office

Sections E thru K: Complete on all inspections as appropriate
Y – Yes, N – No, N/A – Not Applicable, N/E – Not Evaluated

Section E: Permit Verification

Inspection observations verify the permit

- (a) Correct name and mailing address of permittee Y
- (b) Correct name and location of receiving waters..... Y
- (c) Do Categorical Standards apply?...If yes, list applicable standards.. Y

40 CFR 414 to MSD discharge
- (d) Product(s) and production rates conform with permit application (Industries)..... NA
- (e) Flows and loadings conform with NPDES permit..... NA
- (f) Treatment processes are as described in permit application... Y
- (g) All discharges are permitted..... Y
- (h) Number and location of discharge points are as described in permit..... Y
- (i) Storm water discharges properly permitted..... Y

Comments/Status:

h) Maybe eliminating another outfall or two. Have eliminated three already. The permit was modified to reflect this change.

Section F: Compliance

- (a) Any significant violations since the last inspection..... Y
- (b) Appropriate Non-compliance notification of violations..... Y
- (c) Permittee is taking actions to resolve violations..... Y
- (d) Permittee has a compliance schedule..... NA
- (e) Compliance schedule contained in...N/A
- (f) Permittee is in compliance with schedule..... NA
- (g) Has biomonitoring shown toxicity in discharge since last inspection NA

Comments/Status:

a) Facility has been having Oil and Grease violations and an occasional pH violation. They are working to address these violations. The pH violations may be related to the pH not being taken in the field.

Section G: Operation & Maintenance

Treatment Works:

Treatment facility properly operated and maintained

(a) Standby power available.....generator or dual feed NA

i. What does the back-up power source operate.....

NA

ii. How often is the generator tested under load.....

NA

(b) Which components have an alarm system available for power or equipment failures.....

NA

(c) All treatment units in service other than backup units..... NA

(d) What method is used for scheduling routine & preventative maintenance (calendar, software, etc.).....

NA

(e) Any major equipment breakdown since last inspection..... NA

(f) Operation and maintenance manual provided and maintained..... NA

(g) Any plant bypasses since last inspection..... NA

(h) Any plant upsets since last inspection..... NA

Comments/Status:

These are storm water discharges. There is retention of storm water on-site, but no active treatment of the storm water.

Section H: Sludge Management

NOT APPLICABLE

- (a) Method of Sludge Disposal... Land Application
 Haul to Another NPDES Permittee
 Haul to a Mixed Solid Waste Landfill

*if one of the selected methods is land application, complete applicable charts.

Class A - Exception Quality Sewage Sludge (monitoring station 584)

Pathogen Reduction Alternative	84370 Vector Attraction Reduction Options							
	Option 1 -38% Volatile Solids Reduction	Option 2 -Anaerobic Bench Scale Analysis	Option 3 - Aerobic Bench Scale Analysis	Option 4 - Specific Oxygen Uptake Rate	Option 5 - Aerobic Time and Temperature	Option 6 - Alkali Addition	Option 7 - >75% Percent Solids without Unstabilized Solids	Option 8 - >75% Percent Solids with Unstabilized Solids
Alternative 1 - Time and Temperature Regime (84369)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 2 - High pH and High Temperature (84369)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 3 - Other Processes (84369)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 4 - Unknown Processes (84369)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 5 - Composting (84397)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 5 - Heat Drying (84397)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 5 - Heat Treatment (84397)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 5 - Thermophilic Aerobic Digestion (84397)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 5 - Beta Ray Irradiation (84397)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 5 - Gamma ray Irradiation (84397)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 5 - Pasteurization (84397)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 6 - Approved Equivalent Process	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Class B Sewage Sludge (monitoring station 581)

Pathogen Reduction Alternative	84370 Vector Attraction Reduction Options									
	Option 1 -38% Volatile Solids Reduction	Option 2 -Anaerobic Bench Scale Analysis	Option 3 - Aerobic Bench Scale Analysis	Option 4 - Specific Oxygen Uptake Rate	Option 5 - Aerobic Time and Temperature	Option 6 - Alkali Addition	Option 7 - >75% Percent Solids without Unstabilized	Option 8 - >75% Percent Solids with Unstabilized	Option 9 - Land Injection	Option 10 - Immediate Incorporation
Alternative 1 - Geometric Mean of Seven Fecal Samples (84369)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 2 - Aerobic Digestion (46396)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 2 - Air Drying (46396)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 2 - Anaerobic Digestion (46396)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 2 - Composting (46396)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 2 - Lime Treatment (46396)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternative 3 - Approved Equivalent Process	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- (a) Has amount of sludge generated changed significantly since the last inspection..... NA
- (b) How much sludge storage is provided at the plant.....

NA
- (c) Records kept in accordance with State and Federal law (5 years according to OAC 3745-40-06)..... NA
- (d) Any complaints received in last year regarding sludge..... NA
- (e) 5/8" screen at headworks for facilities that land apply sludge..... NA
- (f) Are sludge application sites inspected to verify compliance with NPDES permit..... NA
- (g) Is a contractor used for sludge disposal..... NA
 If so, what is the name of the contractor.....

NA

Comments/Status:

There is no treatment nor is there sludge generated.

Section I: Self-Monitoring Program

Flow Measurement:

- (a) Primary/Secondary flow measuring devices operated and maintained..... NA
Type of device (e.g. weir with ultrasonic level sensor):
- (b) Calibration frequency adequate NA
(Date of last calibration: NA)
- (c) 24-hour recording instruments operated and maintained.....NA
- (d) Flow measurement equipment adequate to handle full range of flows..... NA
- (e) Actual flow discharged is measured..... NA
- (f) Flow measuring equipment inspection frequency
Daily Weekly monthly other

Comments/Status:

Storm water discharges. Use the rainfall amount times the surface area tributary to the outfall.

Section I: Self-Monitoring Program (con't)

Sampling:

- (a) Sampling location(s) are as specified by permit..... Y
- (b) Parameters and sampling frequency agree with permit..... Y
- (c) Permittee uses required sampling method..... ?
(see GLC page)
- (d) Monitoring records (i.e., flow, pH, DO) maintained for a minimum of three years including all original strip chart recordings (i.e, continuous monitoring instrumentation, calibration and maintenance records)..... Y

Comments/Status:

Cardinal Laboratories performs the analytical work. The pH is not being read in the field, but is instead read back at the laboratory.

Section I: Self-Monitoring Program (con't)

Laboratory:

General

- (a) Does the Quality Assurance Manual contain written Standard Operating Procedures (SOP's) for all analysis performed onsite..... ?
- (b) Do SOP's include the following if applicable..... ?
 - Title
 - Scope and Application
 - Summary
 - Sample Handling and Preservation
 - Interferences
 - Apparatus and Materials
 - Reagents
 - Procedure
 - Calculations
 - Quality Control
 - Maintenance
 - Corrective Action
 - Reference (Parent Method)

Note: Standard Methods 1020A establishes that "Quality assurance (QA) is the definitive program for laboratory operation that specifies the measure required to produce defensible data of known precision and accuracy. Standard operating procedures are to be used in the laboratory in sufficient detail that a competent analyst unfamiliar with the method can conduct a reliable review and/or obtain acceptable results." SOPs should be developed for each analytical procedure.

- (c) EPA approved analytical testing procedures used (40 CFR 136.3).. Y
- (d) If alternate analytical procedures are used, proper approval has been obtained..... NA
- (e) Analyses being performed more frequently than required by permit. N
- (f) If (e) is yes, are results in permittee's self-monitoring report..... NA
- (g) Satisfactory calibration and maintenance of instruments/equipment. ?
(see score from GLC page)
- (h) Commercial laboratory used..... Y
Parameters analyzed by commercial lab: **pH, Fecal Coliform, cBOD,**

TSS, O&G, COD, PAH

Lab name: **Cardinal Laboratories**

Discharge Monitoring Report Quality Assurance (DMRQA)

- (a) Participation in latest USEPA quality assurance performance sampling..... ?
Date:
- (b) Were any parameters "Unsatisfactory"..... ?
- (c) Reasons for "Unsatisfactory" parameters.....

?

Comments/Status:

The pH must be taken in the field. The facility may be obtaining DMRQA results for Cardinal Laboratories.

Section J: Effluent/Receiving Water Observations

Outfall # 010

Outfall Description: Final outfall for storm water discharges from the Esters area.

Receiving Stream: Mill Creek

Receiving Stream Description: Channelized concrete. There was no discharge the day of the inspection. Creek was clear and flowing.

Outfall # 011

Outfall Description: Final outfall for storm water discharges from the former Esters area and the grassy areas.

Receiving Stream: Mill Creek

Receiving Stream Description: Channelized concrete. There was no discharge the day of the inspection. Creek was clear and flowing.

Outfall # 014

Outfall Description: Final outfall for storm water discharges from the Esters area.

Receiving Stream: Mill Creek

Receiving Stream Description: Channelized concrete. There was no discharge the day of the inspection. Creek was clear and flowing.

Outfall # 020

Outfall Description: Final outfall for storm water discharges from the CARE warehouse areas.

Receiving Stream: Mill Creek

Receiving Stream Description: Channelized concrete. There was no discharge the day of the inspection. Creek was clear and flowing.

Outfall # 021

Outfall Description: Final outfall for storm water discharges from the CARE products area. There are booms in this area for the sheen from the diesel leak remediation.

Receiving Stream: Mill Creek

Receiving Stream Description: Channelized concrete. There was no discharge the day of the inspection. Creek was clear and flowing.

Outfall # 026

Outfall Description: Final outfall for storm water discharges from the Esters areas.

Receiving Stream: Mill Creek

Receiving Stream Description: Channelized concrete. There was no discharge the day of the inspection. Creek was clear and flowing.

Outfall # 033

Outfall Description: Final outfall for storm water discharges from the Esters area.

Receiving Stream: Mill Creek

Receiving Stream Description: Channelized concrete. There was no discharge the day of the inspection. Creek was clear and flowing.

Outfall # 038

Outfall Description: Final outfall for storm water discharges from the Air Products liquid hydrogen storage area.

Receiving Stream: Mill Creek

Receiving Stream Description: Channelized concrete. There was no discharge the day of the inspection. Creek was clear and flowing.

Outfall # 040

Outfall Description: Final outfall for storm water retention basin from the Fatty Alcohol and APG Surfactants and ground water.

Receiving Stream: Mill Creek

Receiving Stream Description: Channelized concrete. There was no discharge the day of the inspection. Creek was clear and flowing.

Comments/Status:

The facility is interested in pursuing green infrastructure options for some of the outfalls. Outfall 010 is one in particular. Cognis is looking into the possibility of this in other areas.

Section K: Multimedia Observations

- (a) Are there indications of sloppy housekeeping or poor maintenance in work and storage areas or laboratories..... N
- (b) Do you notice staining or discoloration of soils, pavement or floors.. N
- (c) Do you notice distressed (unhealthy, discolored, dead) vegetation.. N
- (d) Do you see unidentified dark smoke or dust clouds coming from sources other than smokestacks..... N
- (e) Do you notice any unusual odors or strong chemical smells..... N
- (f) Do you see any open or unmarked drums, unsecured liquids, or damaged containment facilities..... N

If any of the above are observed, ask the following questions:

- (1) What is the cause of the condition?
- (2) Is the observed condition or source a waste product?
- (3) Where is the suspected contaminant normally disposed?
- (4) Is this disposal permitted?
- (5) How long has the condition existed and when did it begin?

Permit # : 11F00017*BD
NPDES # : OH0137812

Comments/Status:

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Permit # : 11F00017*BD
NPDES # : OH0137812

COGNIS CORPORATION
NPDES COMPLIANCE EVALUATION INSPECTION
DATE OF INSPECTION: May 4, 2010

ITEMS FOR DISCUSSION:

The facility has had Oil and Grease violations from its outfalls.

COMPLIANCE EVALUATION:

A rating of Marginal was given to the "Effluent/Receiving Waters" section because of the Oil and Grease and pH violations at the facility. In addition, the facility is significant non-compliance with Oil and Grease at outfall 021.

EFFLUENT LIMIT VIOLATIONS

Station No. 11F00017011

Parameter	Code	Date	Permit Limit	Reported
Oil and Grease, Hexane	00552	10/2/2009	10 mg/L	12.5 mg/L

Station No. 11F00017014

Parameter	Code	Date	Permit Limit	Reported
Oil and Grease, Hexane	00552	10/02/2009	10 mg/L	12.4 mg/L

Station No 11F00017021

Parameter	Code	Date	Permit Limit	Reported
Oil and Grease, Hexane	00552	9/7/2009	10 mg/L	27.5 mg/L
Oil and Grease, Hexane	00552	11/17/2009	10 mg/L	11.1 mg/L
Oil and Grease, Hexane	00552	2/5/2010	10 mg/L	25 mg/L
Oil and Grease, Hexane	00552	3/12/2010	10 mg/L	14.6 mg/L
Oil and Grease, Hexane	00552	4/8/2010	10 mg/L	13.8 mg/L

Station No 11F00017033

Parameter	Code	Date	Permit Limit	Reported
Oil and Grease, Hexane	00552	11/17/2009	10 mg/L	11.5 mg/L

Station No. 11F00017040

Parameter	Code	Date	Permit Limit	Reported
Oil and Grease, Hexane	00552	1/12/2010	10 mg/L	23.2 mg/L

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Please be advised that failure to comply with the effluent limitations, or to satisfy monitoring or reporting requirements of your NPDES permit may be cause for enforcement action pursuant to the Ohio Revised Code Chapter 6111. The step(s) being taken to resolve these violations have been provided in the notification of violation provided by the facility.

The facility is interested in the use of green infrastructure, and eliminating some of its outfalls to Mill Creek. The facility is also finishing separating out flows from Emery Oleochemicals lines. Cognis is hoping to eliminate any discharge to the same collection system.

Cognis has not been taking its pH readings in the field. The pH reading is taken once the sample reaches Cardinal Laboratories. The pH must be taken in the field. This could be part of the reason the pH violations are occurring.

OBSERVATIONS:

Cognis Corporation Cincinnati operations (Cognis) produce CARE chemicals that cover the entire spectrum of hair, skin and body care, as well as household and industrial detergents and cleaners. The facility also supports Cognis' Functional Products business by producing various esters that are used in a wide variety of markets such as coatings, lubricants, graphic arts, adhesives, agriculture and mining.

The primary raw materials for the CARE products are coconut oil, palm stearine oil, palm kernel oil, methanol, and dextrose with the finished products being fatty alcohols, glycerine and alkyl polyglycoside (APG®) surfactants. The primary raw materials for the Ester products are azelaic acid, oleic acid, glycerine and various alcohols.

Cognis receives, manufactures, and/or ships multiple types of chemicals at the Cincinnati plant. The primary raw materials for the Cognis operations are vegetable oils, alcohols, dextrose, fatty acids, solvents, and acids. These materials are generally stored in bulk storage tanks and containers located within covered areas. All warehouse drains are connected to the process sewer. In addition, all chemical bulk storage tanks are located within a secondary containment system. Most bulk storage tanks are located within a tank farm area, and utilize a barrier wall around the tank farm for containment purposes. The tank farm areas drain to the process sewer system.

Within the Esters Department, the following chemicals may be used and stored:

- Biphenyl (used as a heat transfer fluid and drains to the process sewer);
- Methanol (used in manufacturing and could drain to storm sewer during transportation; the manufacturing uses drain to the process sewer);
- Phosphoric acid (used in manufacturing and could drain to storm sewer during transportation; the manufacturing uses drain to the process sewer); and
- Phthalic Anhydride (used in manufacturing and could drain to storm sewer during

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transportation; the manufacturing uses drain to the process sewer).

Within the CARE Department, the following chemical may be used and stored:

- Copper Compounds (used in manufacturing and could drain to storm sewer during transportation; the manufacturing uses drain to the process sewer);
- Hydrochloric acid (used in manufacturing and could drain to storm sewer during transportation; the manufacturing uses drain to the process sewer);
- Methanol (used in manufacturing and could drain to storm sewer during transportation; the manufacturing uses drain to the process sewer);
- Sulfuric Acid (used in manufacturing and could drain to storm sewer during transportation; the manufacturing uses drain to the process sewer); and
- Zinc Compounds (used in manufacturing and could drain to storm sewer during transportation; the manufacturing uses drain to the process sewer).

Cognis employs a number of traditional storm water management practices to control and manage the quality and quantity of storm water run-off:

- Storm water runoff within the CARE manufacturing area drains to a containment pond where the first quarter inch of rainfall is collected, any grease and oil is removed, and the water phase is used as cooling water in the manufacturing process prior to being discharged in the process sewer system. The additional storm water in the CARE area is routed through the storm sewer system, and is discharged directly to the Mill Creek. This process of collecting the first quarter inch is thought to be adequate to remove any pollutants that could be in the run-off. A containment wall has been constructed to the west of Building 97 to divert storm water runoff to the storm water system and to the collection pond rather than direct sheet flow to Mill Creek.
- Within the Ester Department, outfall 11F00017036 collects storm water runoff from the roadway and paved area between Buildings 53 and 56. Outfall 11F00017032 was eliminated. Outfall 11F00017033 collects storm water runoff from paved areas between Buildings 106 and 56, from paved areas north of Warehouse 69, and from the visitor parking lot. This outfall has a minimal potential to have contaminants from these areas. Also, within the Ester area, a full-length containment wall has been constructed at the Mill Creek bank area. This wall has several openings (identified as outfalls P and Q) to allow storm water runoff to drain to Mill Creek. Each of these outfalls contains a manual valve that is maintained in the closed position. Following the storm event, the collected storm water is visually inspected for signs of contaminants, and if there are no signs of this, then the runoff is released to Mill Creek. The Esters Department is in the planning phase of a "collect and discharge" system for the area. This will eliminate any potential storm water discharge without inspection for pollutants. Permit to Install (PTI) Application Number 626532 has been issued.
- Outfall 11F00017038 collects storm water runoff from the Air Products liquid hydrogen storage portion of the plant. This runoff is from the gravel area, and is

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collected in catch basin 38A, which discharges to Mill Creek via outfall 11F00017038.

- Outfall 11F00017010 collects storm water runoff from the roadway to the east of the South Bridge. This area is subject to normal truck traffic. A manual valve has been placed in the collection basin for outfall 11F00017010, and the "catch, inspect and release" operation is used for this outfall.
- Outfall 11F00017014 collects storm water runoff from the roadway west of Building 32. This area is subject to normal truck traffic. A manual valve has been placed in the collection basin for Outfall 11F00017014 and the "catch, inspect and release" operation is used for this outfall.
- Outfall 11F00017011 collects storm water runoff from the roofs of Building 55, 39 and 39A. These buildings are no longer utilized for manufacturing and do not store chemicals. These three buildings were demolished in 2008.
- Outfall 11F00017020 collects storm water runoff from the roof of warehouse 67.
- Outfall 11F00017021 collects storm water runoff from the paved areas around and between Buildings 67 and 96. This area is subject to normal truck traffic. A manual valve has been placed in the collection basins for outfall 11F00017021, and the "catch, inspect and release" operation is used for this outfall.
- Outfalls 11F00017012 and 11F00017037 were eliminated.
- Outfall 11F00017040 is the discharge from a storm water detention basin. This basin takes ground water from the site and storm water. The storm water retention basin has the capability to be diverted to the pretreatment system, and then switched and discharged to the Mill Creek. The general procedure for this retention basin is:
 - The first 0.25 inches of rainfall (about 16,748 gallons) is collected from the Fatty Acid and APG[®] Surfactants manufacturing area, and flows to the concrete storm water retention basin. This quantity was deemed sufficient to clean any contamination from the collection surfaces.
 - After the first 0.25 inches of rainfall, the retention basin inlet valve is closes and additional rain water runoff bypasses the basin and discharges directly to Mill Creek.
 - After the rainfall event is over, the storm water collected in the basin is pumped manually to tank 199-T05. Here the grease and oil are removed and the remaining water phase is used in the process area of Unit 108 to cool the bottom streams from methanol fractionation column 108-C02 using heat exchanger 108-H07.
 - The process water from the heat exchanger is discharged via the pretreatment system to MSD.

The rail car loading/unloading area spill containment area has been repaired. Any spill goes into a sump and is then pumped to the pretreatment system for treatment. The concrete has been repaired, and lined with stainless steel that has been welded to prevent leaks. A slip resistant grating has been placed over the top of the stainless steel.

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A retaining wall has been built around the coconut oil unloading area to the plant north of Building 93 to protect the storm water collection system.

The storm drains in the facility are painted yellow to identify that the area discharging to Mill Creek.

Cognis has been implementing the sheen language that was a result of the permit appeal negotiations. This is only for the outfalls with an intermittent storm water discharge. The outfalls with ground water and the storm water retention basin have monthly monitoring and Oil and Grease limits.

REQUIRED ACTION

Cognis Corporation must take it pH sample in the field. This must begin immediately.