



A R K A N S A S
Department of Environmental Quality

Memo

To: Kerri McCabe, Inspector Supervisor, Water Division
From: Michael Young, District 8 Field Inspector, Water Division
CC: Casey Cox (Casey.Cox@agfc.ar.gov)
Rachel Johnson (Rachel.JOHNSON2@GAPAC.com)
Date: November 12, 2014
Re: Fish Kill in Georgia-Pacific, LLC Process Water Basin (AKA Lily Pond), Ashley County.

On Tuesday, October 21 Casey Cox, Fisheries Biologist with AGFC, left a message at the ADEQ El Dorado Field Office about a possible fish kill. On October 22, I left a voice message for Casey Cox and on October 23 I received the information from Mr. Cox of a fish kill at Georgia Pacific, LLC in Crossett, AR. Mr. Cox forwarded an e-mail (attached) he received from Sarah Ross, G-P Environmental Team Leader, stating that a fish kill had occurred in Lily Pond as the result of tank cleaning and maintenance. I planned to visit the pond on Tuesday, October 28.

On October 28, 2014 I arrived at Georgia Pacific, LLC in Crossett, AR approximately at 10:22. I was escorted to the location of the fish kill by Rachel Johnson, G-P Environmental Engineer. Ms. Johnson explained that Lily Pond is used only for process water, is not a public or private fishing pond, and the basin stores treated water for mill process use only and is not potable water (see Photos 1 and 2; Figure 1). Ms. Johnson then escorted me to Cemetery Pond (see Figure 2) which accepts any overflow from Lily Pond and is used as a process water basin as well as firewater. Ms. Johnson then identified a location on G-P property where dead fish were dumped. This location does not drain to stormwater outfalls and any runoff will be processed by the WWTP. On October 28 I did not observe any dead fishes or issues with Lily Pond or Cemetery Pond. The Safety Data Sheet (SDS) for the chemical entering Lily Pond and causing the fish kill is attached to this report.

A description of the process water use of Lily Pond is described by Sarah Ross in the attached e-mail.

*Note: NPDES permit AR0001210 (AFIN: 02-00013) states:

Condition Part II. (12.): "In addition to the normal wastewater discharge, this NPDES permit authorizes discharges associated with or resulting during essential maintenance, regularly scheduled maintenance, during startup and shutdown, spills and release (whether anticipated or unanticipated) from anywhere in the permitted facility, as long as they are amenable to treatment, routed to the plant's wastewater treatment system and effluent limitations are met."

PDS# 017955

U. S. Environmental Protection Agency
Office of Water Planning and Standards
Washington, D. C. 20460

Form Approved OMB No. 158-R0036
FOR OWPS USE ONLY

Report of Pollution Caused Fish Kills

1A. Location (Name of body of Water; Latitude-Longitude):

Lily Pond, 33.141757 -91.964615

B. Nearest Town
Crossett

County
Ashley

C. State
AR

2. Date of Kill:
10/16/2014

3. Type of Water Body: Estuary River or Stream
 Lake/Pond Ocean or Gulf

4. Public Drinking Water Supply:
 Yes No

5. POLLUTION SOURCE-TYPE OF OPERATION

A. Agricultural Operations:
 Poisons (pesticides, etc.)
 Fertilizers
 Manure Drainage, Ensilage Liquors, or Feed Lot Operations
 Handling of Equipment and Containers

B. Industrial Operations:
 Mining Textiles
 Chemicals Petroleum
 Metals Sand & Gravel
 Food and Kindred Products
 Leather and Leather Products
 Paper and Allied Products
 Lumber and Wood Products
 Rubber & Plastics
 Other:

C. Municipal Operations:
 Sewerage System
 Refuse Disposal
 Water System
 Swimming Pool
 Power (public services)
 Pest Control

D. Transportation Operations:
 Rail Truck Air
 Pipeline Barge or Boat

E. Construction or Other:
 Construction
 Other:

F. Unknown

G. Specific Pollutant or Factor Changing Water Characteristics (Name of chemical, thermal discharge, etc.)
UltraPAC 1424 (see MSDS)

6. Type of Fish Kill
Game: **unknown%**

7. Est. No. Killed:
150

8. Severity
 Total Mod. Light

Non Game: **unknown%**

9. Extent of Area Affected:
unknown

10. Duration of Critical Effect:
24 Hours

Total Commercial

A. Miles of Stream

B. Acres of Lake
Unknown

A. Days
Unknown

B. Hours
Unknown

11A. Species of Fish Killed (If Known)

*****Information provided by Georgia Pacific, LLC.*****

**Carp (90%)
Bass
Perch**

B. Additional Remarks (Include effects on other than fish, e.g., shellfish, waterfowl, etc.)

12. Reporting Official:
Michael D. Young

13. Agency Mailing Address:
**5301 Northshore Drive
North Little Rock, AR 72118**

14. Date of Report:
October 30, 2014

Water Division Fish Kill Photographic Evidence Sheet

Location:	Lily Pond; northeast edge of G-P property.						
Photographer:	Michael D. Young			Witness:	Rachel Johnson		
Photo #	1	Of	2	Date:	10/28/2014	Time:	10:49
Description:	North bank of Lily Pond where fish kill occurred. No dead fish present during site visit.						



Photographer:	Michael D. Young			Witness:	Kenneth Robertson		
Photo #	2	Of	2	Date:	10/28/2014	Time:	10:49
Description:	South bank of Lily Pond. No dead fish present during site visit.						



Figure 1. Google Earth image dated Nov 12, 2012 of overview of Lily Pond, which is used as process water for Georgia Pacific, LLC in Crossett, AR.



Figure 2. Google Earth image dated Nov 12, 2012 of overview of Georgia Pacific, LLC in Crossett, AR identifying Lily Pond and Cemetery Pond. Lily Pond flows into Cemetery Pond which is used for process water.



McCabe, Kerri

From: Cox, Casey <Casey.Cox@agfc.ar.gov>
Sent: Thursday, October 23, 2014 3:57 PM
To: Young, Michael
Subject: Fwd: Georgia Pacific LLC - Crossett Paper Operations

Follow Up Flag: Follow up
Flag Status: Flagged

Here's what GP sent. Feel free to contact me with any further questions

Casey

Sent from my iPhone

Begin forwarded message:

From: "Ross, Sarah M." <Sarah.Ross@GAPAC.com<<mailto:Sarah.Ross@GAPAC.com>>>
Date: October 21, 2014 at 5:46:12 PM CDT
To: "Casey Cox (casey.cox@agfc.ar.gov<<mailto:casey.cox@agfc.ar.gov>>)"
<casey.cox@agfc.ar.gov<<mailto:casey.cox@agfc.ar.gov>>>
Subject: Georgia Pacific LLC - Crossett Paper Operations

Mr. Cox,

RE: Georgia Pacific LLC - Crossett Paper Operations (AFIN 02-00013) - Fish in GP Process Water Pond (aka Lily Pond)

Thank you for returning my call from Friday morning. To summarize our telephone conversation this afternoon regarding the dead fish we found in our Process Water basin (aka Lily Pond):

* Dead fish were identified in the GP process water basin (aka Lily Pond) the afternoon of Thursday, October 16, 2014 at ~ 3:00 PM. We determined a tank previously containing an alum substitute was being cleaned out on Monday, October 13, 2014 and left open during a heavy rain event that day causing the water to migrate to the process water basin (aka Lily Pond).

* The fish were predominately small minnow size, but 135 larger sized fish were found. The large fish were collected from the Lily Pond on Saturday, October 18, 2014 and placed on our mill property.

* This basin is part of a process water system which provides water for the operation of mill turbines and various process equipment.

* The Lily Pond is not a public or private fishing pond. This basin stores treated water for mill process use only and is not potable water.

GP Process Water System description:

* Water is pulled from the Lake Georgia Pacific (Lake GP) pipeline directly into the GP Cemetery Pond, also a process water basin. Water leaves the GP Cemetery Pond for the following reasons:

- o This process water is treated with hypo and used for cooling water in the #4 Turbine Generator Condenser. This process water then returns to the GP Lily Pond for cooling before it gravity flows back to the GP Cemetery Pond for reuse. The GP Cemetery Pond supplies water for the long wood wet-deck.
 - o Both the GP Lily Pond and GP Cemetery Pond have pumping/valve arrangements that allow them to be used for short term mill water supply should Lake GP become unavailable due to mechanical or electrical failure.
 - o The GP Crossett Plywood Facility also used the GP Lily Pond as a firewater source.
- If you have any questions or need further clarification, please contact me.

Sincerely,
Sarah Ross
Environmental Team Leader
GP Crossett Paper Operations
Email: Sarah.Ross@gapac.com<mailto:Sarah.Ross@gapac.com>
Phone: (870) 567-8670
Fax: (870) 364-9076



G E O
SPECIALTY CHEMICALS

Material Safety Data Sheet

Section 1 - Chemical Product and Company Information

PRODUCT NAME: UltraPAC® 1424
 SYNONYMS: Water and Wastewater Treatment Coagulant/Flocculant
 SUPPLIER: GEO Specialty Chemicals
 ADDRESS: 9213 Arch Street Pike, Little Rock, AR 72206

NFPA Rating

HEALTH: 2
 FLAMMABILITY: 0
 REACTIVITY: 0

HMIS Rating

HEALTH: 2
 FLAMMABILITY: 0
 REACTIVITY: 0

EMERGENCY TELEPHONE NUMBER: CHEMTREC 1-800-424-9300

EMERGENCY OVERVIEW

Corrosive Liquid! Clear, colorless to yellow liquid with no appreciable odor. May cause skin and eye irritation that can become severe on prolonged contact. May be harmful if swallowed. Inhalation of spray or mist may irritate respiratory tract.

Section 2 - Composition Information

<u>INGREDIENTS</u>	<u>CAS NO.</u>	<u>% WT/WT</u>	<u>PEL</u>	<u>TLV</u>
Trade Secret Ingredients	Trade Secret	100	*15 mg/m ³ (TD) *5 mg/m ³ (RF)	SOLUBLE SALTS: *2 mg/m ³ (TWA)

*Aluminum metal, (as Al)

LISTED AS CARCINOGEN BY:

IARC: NO
 OSHA: NO

NTP: NO
 ACGIH: NO

PEL: OSHA Permissible Exposure Limit
 STEL: Short Term Exposure Limit
 HI: Hazardous Ingredient
 OM: Oil mist
 ST: Skin TWA

TWA: Time Weighted Average, 8-hr
 TLV: ACGIH Threshold Limit
 C.LIM: Ceiling Limit
 WF: Wax fume

TD: Total dust
 ND: Nuisance dust
 INP: Inhalable Particulate
 RF: Respirable fraction

Section 3 - Hazards Identification

ROUTES OF EXPOSURE

INHALATION: Inhalation of mist or spray may irritate respiratory tract.
SKIN CONTACT: Expected to be irritating especially on prolonged contact or repeated contact.
SKIN ABSORPTION: No Data
EYE CONTACT: Direct eye contact may cause irritation, redness, swelling and pain that can become severe on prolonged contact. Prolonged exposure to Aluminum salts may cause conjunctivitis.
INGESTION: May cause irritation of gastrointestinal tract, nausea and vomiting.

EFFECTS OF OVEREXPOSURE

ACUTE OVEREXPOSURE: Possible eye, skin and respiratory tract irritation.
CHRONIC OVEREXPOSURE: May aggravate existing skin, eye, and lung conditions. Persons with kidney disorders have an increased risk from exposure based on general information found on aluminum salts.

Section 4 - First Aid Measures

EYES: Immediately flush with plenty of water for at least 15 minutes, holding eyelids apart to ensure flushing of the entire surface. Washing within one minute is essential to achieve maximum effectiveness. Seek medical attention.
SKIN: Wash thoroughly with soap and water, remove contaminated clothing and footwear. Wash clothing before reuse. Get medical attention if irritation should develop.
INHALATION: Remove victim from contaminated area to fresh air immediately. Get immediate medical attention.
INGESTION: Do not induce vomiting. Give large amounts of water followed by milk if available. If vomiting should occur spontaneously, keep airway clear. Get medical attention. Never give anything by mouth to an unconscious person.
NOTES TO PHYSICIAN: Aluminum soluble salts may cause gastroenteritis if ingested. Treatment includes the use of demulcents. Note: Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Fire Fighting Measures

FLASHPOINT: NAPL	<u>FLAMMABLE LIMITS IN AIR, % BY VOLUME:</u>
AUTOIGNITION TEMPERATURE: NAPL	LOWER FLAMMABILITY LIMIT: NAPL
	UPPER FLAMMABILITY LIMIT: NAPL
EXTINGUISHING MEDIA: Water Spray, Carbon Dioxide, Foam, Dry Chemical.	

FIRE OR EXPLOSION HAZARDS: May produce hazardous fumes or hazardous decomposition products.
FIRE FIGHTING PROCEDURES: Product is a water solution and nonflammable. In a fire, this product may build up pressure and rupture a sealed container; cool exposed containers with water spray. Use self-contained breathing apparatus in confined areas; avoid breathing vapors or dust.

Section 6 - Accidental Release Measures

Stop leaks. Clean up spill immediately. Build dikes as necessary to contain flow of large spills. Do not allow liquid to enter stream or waterways. For small spills, use soda ash or lime to neutralize, an inert material to absorb, or wash product to a chemical sewer. Place contaminated materials into containers and store in a safe place to await proper disposal. Wear adequate personal protective clothing and equipment. Caution use of soda ash or lime may generate carbon dioxide gas. Provide adequate ventilation to spill area. Approved breathing apparatus may be necessary.

Section 7 - Handling and Storage

PRECAUTIONARY STATEMENTS:

CAUTION!

CORROSIVE LIQUID!

MAY CAUSE IRRITATION.

Avoid contact with eyes, skin, and clothing.

Avoid breathing mist or spray.

Wear chemical splash goggles, gloves, and protective clothing when handling.

Use with adequate ventilation and employ respiratory protection where mist or spray may be generated.

Wash thoroughly after handling.

Do not take internally.

May be harmful if swallowed or inhaled.

Keep away from heat and open flame.

Keep container closed when not in use.

FOR INDUSTRIAL USE ONLY.

HANDLING/STORAGE REQUIREMENTS:

Store in a cool, dry place away from direct heat. Keep container tightly closed when not in use. Do not store in unlined metal containers. Product may slowly corrode iron, brass, copper, aluminum and mild steel.

Section 8 - Exposure Controls/Personal Protection

VENTILATION REQUIREMENTS: Local exhaust ventilation recommended.

EYE PROTECTION: Chemical splash goggles and/or face shield.

SKIN PROTECTION: Chemical resistant gloves.

RESPIRATORY PROTECTION: When exposures exceed the PEL, use NIOSH/MSHA approved respirator in accordance with OSHA Respiratory Protection Requirements under 29 CFR 1910.134.

OTHER REQUIRED EQUIPMENT: Standard work clothing and work shoes. Safety shower and eyewash located in immediate area.

Section 12 - Ecological Information

BOD5:	mg O2/mg:	NAV
	ppm:	NAV
	Biodegradable, %:	NAV
BOD28:	mg O2/mg:	NAV
	ppm:	NAV
	Biodegradable, %:	NAV
COD:	mg O2/mg:	NAV
	ppm:	NAV
	Biodegradable, %:	NAV

Aquatic Toxicity:
Not Available

Section 13 - Disposal Considerations

Dispose of in accordance with all applicable federal, state and local regulations.

Section 14 - Transportation Information

DOT Proper Shipping Name:
UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (POLYALUMINUM CHLORIDE SOLUTION), 8, PG III,
ERG # 154

Harmonized Tariff Schedule Number: 3824.90.9290

Section 15 - Regulatory Information

This product does not contain any ingredients subject to the reporting requirements of SARA Title III,
Section 313 (40 CFR Part 372).

SARA Section 311/312: Acute and Chronic Health Hazard and Reactive Hazard.

TSCA: Components found in TSCA Inventory.

Section 16 - Other Information

PREPARER'S NAME:	Michael R. Oldfield
PREPARER'S TITLE:	Enhanced Aluminum Products Manager
PREPARER'S TELEPHONE NUMBER:	(501) 888-1211
REFERENCE NUMBER:	
LAST REVISION DATE:	2/13/09

The information herein is given in good faith but no warranty, expressed or implied, is made.

Legend

NAV = Not Available; NAPL = Not Applicable; NTES = None Established; TRSC = Trade Secret