UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

SEP 15 2003

GENERAL NOTICE LETTER
CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Phillip D. Ashkettle, President
Reichhold Chemicals, Inc.
P.O. Box 13582
Research Triangle Park, North Carolina 27709

RE: Diamond Alkali Superfund Site
Notice of Potential Liability for
Response Actions in the Lower Passaic River, New Jersey

Dear Mr. Ashkettle:

The United States Environmental Protection Agency ("EPA") is charged with responding to the release and/or threatened release of hazardous substances, pollutants, and contaminants into the environment and with enforcement responsibilities under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. §9601 et seq. Accordingly, EPA is seeking your cooperation in an innovative approach to environmental remediation and restoration activities for the Lower Passaic River.

EPA has documented the release or threatened release of hazardous substances, pollutants and contaminants into the six-mile stretch of the river, known as the Passaic River Study Area, which is part of the Diamond Alkali Superfund Site ("Site") located in Newark, New Jersey. Based on the results of previous CERCLA remedial investigation activities and other environmental studies, including a reconnaissance study of the Passaic River conducted by the United States Army Corps of Engineers ("USACE"), EPA has further determined that contaminated sediments and other potential sources of hazardous substances exist along the entire 17-mile tidal reach of the Lower Passaic River. Thus, EPA has decided to expand the Study to include the areal extent of contamination to which hazardous substances from the six-mile stretch were transported; and those sources from which hazardous substances outside the six-mile stretch have come to be located within the expanded Study Area.

By this letter, EPA is notifying Reichhold Chemicals, Inc. ("Reichhold") of its potential liability relating to the Site pursuant to Section 107(a) of CERCLA, 42 U.S.C. §9607(a). Under CERCLA, potentially responsible parties ("PRPs") include current and past owners of a facility, as well as persons who arranged for the disposal or treatment of hazardous substances at the Site, or the transport of hazardous substances to the Site.

In recognition of our complementary roles, EPA has formed a partnership with USACE and the New Jersey Department of Transportation-Office of Maritime Resources ("OMR") ["the governmental partnership"] to identify and to address water quality improvement, remediation, and restoration opportunities in the 17-mile Lower Passaic River. This governmental partnership is consistent with a national Memorandum of Understanding ("MOU") executed on July 2, 2002 between EPA and USACE. This MOU calls for the two agencies to cooperate, where appropriate, on environmental remediation and restoration of degraded urban rivers and related resources. In agreeing to implement the MOU, the EPA and USACE will use their existing statutory and regulatory authorities in a coordinated manner. These authorities for EPA include CERCLA, the Clean Water Act, and the Resource Conservation and Recovery Act. The USACE's authority stems from the Water Resources Development Act ("WRDA"). WRDA allows for the use of some federal funds to pay for a portion of the USACE's approved projects related to ecosystem restoration.

For the first phase of the Lower Passaic River Project, the governmental partners are proceeding with an integrated five- to seven-year study to determine an appropriate remediation and restoration plan for the river. The study will involve investigation of environmental impacts and pollution sources, as well as evaluation of alternative actions, leading to recommendations of environmental remediation and restoration activities. This study is being conducted by EPA under the authority of CERCLA and by USACE and OMR, as local sponsor, under WRDA. EPA, USACE, and OMR are coordinating with the New Jersey Department of Environmental Protection and the Federal and State Natural Resource Trustee agencies. EPA, USACE, and OMR estimate that the study will cost approximately $20 million, with the WRDA and CERCLA shares being about $10 million each. EPA will be seeking its share of the costs of the study from PRPs.

Based on information that EPA evaluated during the course of its investigation of the Site, EPA believes that hazardous substances were being released from Reichhold's facility located at 400 Doremus Avenue in Newark, New Jersey, into the Lower Passaic River. Hazardous substances, pollutants and contaminants released from the facility into the river present a risk to the environment and the humans who may ingest contaminated fish and shellfish. Therefore, Reichhold may be potentially liable for response costs which the government may incur relating to the study of the Lower Passaic River. In addition, responsible parties may be required to pay damages for injury to, destruction of, or loss of natural resources, including the cost of assessing such damages.

Enclosed is a list of the other PRPs who have received Notice letters. This list represents EPA's findings on the identities of PRPs to date. We are continuing efforts to locate additional PRPs who have released hazardous substances, directly or indirectly, into the Passaic River. Inclusion on, or exclusion from, the list does not constitute a final determination by EPA concerning the liability of any party for the release or threat of release of hazardous substances at the Site. Be advised that notice of your potential liability at the Site is being forwarded to all parties on this list.

We request that you consider becoming a "cooperating party" for the Lower Passaic River

Project. As a cooperating party, you, along with many other such parties, will be expected to fund EPA's share of the study costs. Upon completion of the study, it is expected that CERCLA and WRDA processes will be used to identify the required remediation and restoration programs, as well as the assignment of remediation and restoration costs. At this time, the commitments of the cooperating parties will apply only to the study. For those who choose not to cooperate, EPA may apply the CERCLA enforcement process, pursuant to Sections 106 (a) and 107(a) of CERCLA, 42 U.S.C. §9606(a) and §9607(a) and other laws.

Pursuant to CERCLA Section 113(k), EPA must establish an administrative record that contains documents that form the basis of EPA's decision on the selection of a response action for a site. The administrative record files, which contain the documents related to the response action selected for this Site are located at EPA's Region 2 office (290 Broadway, New York) on the 18th floor. You may call the Records Center at (212) 637-4308 to make an appointment to view the administrative record for the Lower Passaic River Project.

EPA will be holding a meeting with all PRPs on October 29, 2003 at 10:00 AM in Conference Room 27A at the Region 2 office. At that meeting, EPA will provide information about the actions taken to date in the Lower Passaic River, as well as plans for future activities. After the presentation, PRPs will be given the opportunity to caucus, and EPA will return to answer any questions that might be generated during the private session. Please be advised that due to increased security measures, all visitors need to be registered with the security desk in the lobby in order to gain entry to the office. In order to ensure a smooth arrival, you will need to provide EPA with a list of attendees no later than October 15, 2003.

EPA recommends that the cooperating parties select a steering committee to represent the group's interest as soon as possible, since EPA expects a funding commitment for the financing of the CERCLA share of the $20 million study by mid-November 2003. If you wish to discuss this further, please contact Ms. Alice Yeh, Remedial Project Manager, at (212) 637-4427 or Ms. Kedari Reddy, Assistant Regional Counsel, at (212) 637-3106. Please note that all communications from attorneys should be directed to Ms. Reddy.

Sincerely yours,

George Pavlou, Director
Emergency and Remedial Response Division

Enclosure

cc: Adam S. Walters, Esq.
Phillips, Lytle, Hitchcock, Blaine & Huber

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PRPs in Receipt of Notice Letters:

PRP	Legal Counsel
J. Roger Hirl President and Chairman of the Board Occidental Chemical Co. Occidental Tower 5005 LBJ Freeway Dallas, Texas 75244	Paul W. Herring, Esq. Andrews & Kurth L.L.P. 1717 Main Street, Suite 3700 Dallas, Texas 75201
Joseph Gabriel Vice President of Operations 360 North Pastoria Environmental Corp. 1100 Ridgeway Avenue Rochester, New York 14652-6280	Philip Sellinger, Esq. Sills Cummis Zuckerman One Riverfront Plaza Newark, NJ 07102
Robert Ball, President Alcan Aluminum Corporation 100 Erieview Plaza, 29th Floor Cleveland, Ohio 44114	Lawrence Salibra, Esq. Alcan Aluminum Corporation 6060 Parkland Blvd. Mayfield Hts., OH 44124
Mark Epstein, President Alden Leeds Inc. 55 Jacobus Ave. Kearny, New Jersey 07032	Eric Aronson, Esq. Whitman Breed Abbott & Morgan One Gateway Center Newark, NJ 07102
Alan Bendelius, President Alliance Chemical, Inc. Linden Avenue Ridgefield, New Jersey 07657	Fredi L. Pearlmutter, Esq. Cooper, Rose & English, LLP 480 Morris Avenue Summit, New Jersey 07901-1527
William Gentner, President The Andrew Jergens Co. 2535 Spring Grove Ave. Cincinnati, Ohio 45214	A. Christian Worrell III, Esq. Head & Ritchey, LLP 1900 Fifth Third Center 511 Walnut Street Cincinnati, OH 45202
Gary Cappeline, President Ashland Specialty Chemical Co. 5200 Blazer Parkway Dublin, Ohio 43017	Stephen Leermakers, Esq. Ashland Specialty Chemical Co. 5200 Blazer Parkway Dublin, OH 43017
Klaus Peter Loebbe, President BASF Corporation 3000 Continental Drive North Mount Olive, New Jersey 07828	Nan Bernardo, Esq. and Nancy Lake Martin, Esq. BASF Corporation 3000 Continental Drive North Mount Olive, NJ 07828

Joseph Akers, Vice President Bayer Corporation 100 Bayer Road Pittsburgh, Pennsylvania 15205-9741	Gerard Hickel, Esq. Bayer Corporation 100 Bayer Road Pittsburgh, PA 15205-9741
Yvan Dupay, President Benjamin Moore & Co. 51 Chestnut Ridge Road Montvale, New Jersey 07645	Arthur Schulz, Esq. Environmental Counsel 4910 Massachusetts Ave., N.W. Suite 221 Washington, DC 20016
Alberto Celleri, President Chemical Compounds Inc. 10 Baldwin Court Roseland, New Jersey 07086	Jim Giannotti Chemical Compounds Inc. 29-75 Riverside Avenue Newark, NJ 07104
President Chris-Craft Industries, Inc. 767 Fifth Avenue, 46th Floor New York, New York 10153	Brian Kelly, Esq. Chris-Craft Industries, Inc. 767 Fifth Avenue, 46th Floor New York, NY 10153
John Guffey, President Coltec Industries, Inc. 3 Coliseum Centre 2550 West Tyvola Road Charlotte, North Carolina 28217	John R. Mayo, Esq. Coltec Industries, Inc. 430 Park Avenue New York, NY 10022
Roger Marcus, President Congoleum Corporation 3705 Quakerbridge Road Mercerville, New Jersey 08619	Russell Hewit, Esq. Dughi & Hewit 340 North Avenue Cranford, NJ 07016
Martin Benante, Chairman Curtiss-Wright Corp. 4 Becker Farm Road Roseland, New Jersey 07068	James Maher, Esq. Curtiss-Wright Corp. 4 Becker Farm Road Roseland, NJ 07068
Antonio Perez, President Eastman Kodak Company 343 State Street Rochester, New York 14650	Elliot Stern, Esq. Eastman Kodak Company 343 State Street Rochester, NY 14650
Edgar Woolard, Chairman E.I. du Pont de Nemours & Co. 1007 Market Street Wilmington, Delaware 19898	Bernard J. Reilly, Esq. Corporate Counsel E.I. du Pont de Nemours & Co. 1007 Market Street Wilmington, DE 19898

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David Weisman, CEO Elan Chemical Company 268 Doremus Ave. Newark, New Jersey 07105	Jeffrey Schwartz, Esq. Sarber Schlesinger Satz & Goldstein One Gateway Center Newark, NJ 07102
Al Reisch, President E M Sergeant Pulp & Chemical Co. Inc. 6 Chelsea Road Clifton, New Jersey 07102	None
Mark Tucker, Esq. Essex Chemical Corp. 2030 WMDC Midland, Michigan 48674	Kenneth Mack, Esq. Fox, Rothschild, O'Brien & Frankel Princeton Pike Corp.Center 997 Lenox Drive, Building 3 Lawrenceville, NJ 08648
Todd Walker, President Fairmount Chemical Co. Inc. 117 Blanchard St. Newark, New Jersey 07105	John Ix, Esq. Porzio Bromberg & Newman 163 Madison Ave. Morristown, NJ 07962
Bradley Buechler, President Franklin-Burlington Plastics Inc. 113 Passaic Ave. Kearny, New Jersey 07032	Robert M. Becker, Esq. Kraemer, Burns, Mytelka & Lovell, P.A. 675 Morris Ave. Springfield, NJ 07081
Henry Benz, President Hoescht Celanese Chemicals, Inc. Route 202-206 P.O.Box 2500 Somerville, New Jersey 08876	Anne Conley-Pitchell, Esq. Hoescht Celanese Corp. Route 202-206 P.O.Box 2500 Somerville, NJ 08876
Francine Rothschild, President Kearny Smelting & Refining 936 Harrison Ave #5 Kearny, New Jersey 07032	None
Henry Schact, CEO Lucent Technologies, Inc. 600 Mountain Avenue Murray Hill, New Jersey 07974	Ralph McMurry, Esq. Hill, Betts & Nash LLP 1 Riverfront Plaza, Suite 327 Newark, NJ 07102-5401
Richard Meelia, President Mallinckrodt, Inc. 675 McDonnell Blvd. Hazelwood, Missouri 63042	Patricia Duft, Esq. Mallinckrodt, Inc. 675 McDonnell Blvd. Hazelwood, MO 63042

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Richard Mahoney, CEO Monsanto Company 800 N. Lindbergh Blvd. St. Louis, Missouri 63167	L. William Higley, Esq. Monsanto Company 800 N. Lindbergh Blvd. St. Louis, MO 63167
Joseph Galli, President Newell Rubbermaid, Inc. 29 E. Stephenson St. Freeport, Illinois 61032	Peter Schultz, Director Environmental Affairs Newell Co. 4000 Auburn St. Rockford, IL 61101
Jean-Pierre van Rooy, President Otis Elevator Company North American Operations 10 Farm Springs Road Farmington, Connecticut 06032	Sarah Hurley, Esq. Robinson & Cole LLP 695 East Main Street Stamford, CT 06904-2305
Richard Ablon, President Ogden Corporation Two Pennsylvania Plaza, 25th Floor New York, New York 10121	J.L. Effinger, Esq. Ogden Corporation Two Pennsylvania Plaza, 25th Floor New York, NY 10121
Henry McKinnell, Chairman Pfizer Inc. 235 E. 42nd St. New York, New York 10017	Michael McThomas, Esq. Pfizer Inc. 235 E. 42nd St. New York, NY 10017
Raymond LeBoeuf, President PPG Industries, Inc. One PPG Place Pittsburgh, Pennsylvania 15272	Joseph Karas, Esq. PPG Industries, Inc. One PPG Place Pittsburgh, PA 15272
Lawrence Codey, President PSE&G Co. P.O. Box 570 Newark, New Jersey 07101-0570	Hugh Mahoney, Esq. PSE&G Co. P.O. Box 570 Newark, NJ 07101
Phillip D. Ashkettle, President Reichhold Chemicals, Inc. P.O. Box 13582 Research Triangle Park, North Carolina 27709	Adam S. Walters, Esq. Phillips, Lytle, Hitchcock, Blaine & Huber 3400 Marine Midland Center Buffalo, NY 14203
Robert McNeeley, President Reilly Industries, Inc. 1510 Market Square Center 151 North Delaware Street Indianapolis, Indiana 46204	Paul Rivers, Director Corporate Environmental Affairs Reilly Industries, Inc. 1500 S. Tibbs Avenue Indianapolis, IN 46242

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Robert Finn, President RSR Corporation 2777 Stemmons Freeway, Suite 1800 Dallas, Texas 75207	Howard Myers, Esq. RSR Corporation 2777 Stemmons Freeway, Suite 1800 Dallas, TX 75207
Christopher Connor, CEO The Sherwin-Williams Company 101 Prospect Avenue, N.W. Cleveland, Ohio 44115-1075	Donald McConnell, Esq. The Sherwin-Williams Co. 101 Prospect Ave., N.W. Cleveland, OH 44115
George Barrett, President Teva Pharmaceuticals USA Inc. 1090 Horsham Road North Wales, Pennsylvania 19454	Kirsten E. Bauer, Esq. Teva North America 1090 Horsham Road North Wales, PA 19454
Robert Senior, President Three County Volkswagen 701 Riverside Ave. Lyndhurst, New Jersey 07071	Robert DiLascio, Esq. 30 Park Avenue, Suite 101 Lyndhurst, NJ 07071
Michael Jordan, President Westinghouse Electric Corp. 11 Stanwix Street Pittsburgh, Pennsylvania 15222	Roger Willis, Esq. Westinghouse Electric Corp. 11 Stanwix Street Pittsburgh, PA 15222
Isaac Weinberger, President Wiggins Plastics Inc. 547 Maitland Ave. Teaneck, New Jersey 07666	None

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4/8
JS
NFA
8/20/91

07-14-87

New Jersey Department of Environmental Protection
COMMUNICATIONS CENTER NOTIFICATION REPORT

Received: 4/03/91 TD Log # 4252
Operator:ROGER (R-A) Case # 91-4-3-1517-16

Notification Type: Facility

Reported By	Affiliation	Phone
BOB NAUJELIS	REICHHOLD CHEMICAL	201-589-3789
Street Address	**Municipality**	**State**
400 DOREMUS AVE.	NEWARK	NJ

Incident Location: Facility

Site REICHHOLD CHEMICAL Phone 201-589-3789

Street Address	Municipality	County	State
400 DOREMUS AVE.	NEWARK	ESSEX	NJ

Location Type Industrial Incident Date 4/03/91 Time 1500

Substance Released UNKNOWN LIQUID
Amount Released (Estimate)50 GALS.
ID:Unknown State Liquid CAS# Release Is Terminated
Additional Substances
Substance Contained? N Hazardous Material? U TCPA? U A310 Letter? Y
COMU CODE: 0714 REF CODE: 001

Incident Description Spill

Injuries? N Public Evac? N Facility Evac? N Public Exposure? N
Police On Scene? N Firemen On Scene? N DEP Requested? N Wind Sp/Dir

Contamination Of Water Receiving Water NEWARK BAY
Status At Scene DISCHARGE TO NEWARK BY FROM OUTFALL PIPE

Responsible Party Suspected

Party REICHHOLD CHEMICAL Phone 201-589-3789
Contact BOB NAUJELIS Title ENV. MGR.

Street Address	Municipality	County	State
400 DOREMUS AVE.	NEWARK	ESSEX	NJ

OFFICIALS NOTIFIED

	NAME	TITLE	PHONE	DATE	TIME
NJSP :	OEM		609-882-2000	4/03	
MUNIC:	NEWARK CITY	DISP.#82	201-733-7400	4/03	1527
OTHER:					

	Name	Affiliation		Method	Date	Time	T/M
1.	M.GARAMONE	DEQ	ER1	Office,Faxed	4/03	1524	T.
2.		DWR	Monitoring	Faxed	4/03		T
3.							

COMMENTS

C/C G. Gibbons. Material suspected to be a "tar mat" resin (6% xylene) seeping out of ground from UST. Super check in tank. There was also an above ground discharge several hrs ago from a sample valve which had been left opened. This spill was approx between 4,000 & 6,000 gallons. Presently bailing back of facility. Clean venture on route.

C. TO DHWM-METRO. (NFA-BCRT)

JS pyistol w/ cost

New Jersey Department of Environmental Protection
Division of Environmental Quality
Bureau of Emergency Response
Region I

INVESTIGATION

Case #: 91-04-03-1517

File #: 0714

Date: 04/15/91

Investigator: Christopher Gibbons

Time Arrived: RECEIVED

Time Departed: MAY 03 1991

Location: Reichhold Chemical
Address: 400 Doremus Avenue
Newark, NJ

Responsible Party: Reichhold Chemical
Mailing Address: 400 Doremus Avenue
Newark, NJ

Location Phone #: 589-3789

Health Dept. Rep: None

Phone # :

Origin of Complaint: Bob Naujelis, Safety Dept. Phone # : 589-3789

Nature of Complaint: Spill of resin into Newark Bay unknown source, Newark HazMat on scene.

Findings: Inspector Gibbons responded to Reichhold Chemical to investigate a discharge of resign into the Newark Bay. On site, Newark HazMat and the Newark FD fire boat were placing boom to contain the resign which had been discharged from Reichhold Chemical. On April 1 Reichhold Chemical had a spill of resign which contain a 7% xylene mixture in a diked area. On April 3, at 0800 a 1000 gallon butyl alcohol spill was discovered, and fire officials flooded the area with water, to suppress any vapors from the alcohol.

Apparently with the added water, the resign found a crack in the containment walls, and was discharged into Newark Bay. Clean Venture was hired to perform clean-up of the effected Waterway. Before Clean Venture arrived on site, the wind direction changer, and pushed the resign along the banks of Reichhold Chemical. It was estimated that 30 gallons of resign had entered the bay.

Conclusions: BER I responded to Reichhold Chemical to investigate a discharge of resign into the Newark Bay area. Clean Venture was hired to clean up the effected area. It was estimated that 30 gallons of the top coat resign had been discharge.

Recommendations: This case was referred to DHWM-M with NFA/BER I.

Christopher Gilmore
Investigator

4-16-91
Date

Supervisor

4-20-91
Date

Dana
Fax

Reichhold Chemicals, Inc.
Coating Polymers & Resins Division
400 Doremus Avenue
Newark, NJ 07105

RECEIVED
APR
REICHHOLD

April 23, 1991

Office of Hazardous Substance Control
Division of Water Resources
P. O. Box 2809
Trenton, New Jersey 08625

MAY - 2 1991

Dear Sirs:

During the afternoon of April 3, 1991, an estimated 20 pounds of a synthetic resin material was observed floating in the Passaic River directly behind our facility located at 400 Doremus Avenue in Newark, Essex County, New Jersey.

The spill was reported by Robert Naujelis at the above address. Facility EPA ID Number NJD092217892.

It is believed the material leaked from the bottom of a containment dike which was in the process of being cleaned of residues from two earlier spills. Reports on the earlier spills are enclosed.

An underground stream passes under the southeast corner of the dike and empties into the river. Material is believed to have leaked from the dike, into the stream and through the outfall into the river. Containment booms were placed around the outfall to prevent additional material from escaping.

When first discovered, the spill consisted of small patches of film on the surface of the water, spread over an area approximately one hundred yards in length and extending approximately 30 yards from shore. Clean Venture, Inc. was called in to remove the material from the water. Soon after the spill was observed, an onshore wind developed which pushed the spilled material back onto the shore, where it was removed and combined with material from the dike. By the time the Clean Venture boat arrived, the spill was cleaned by a crew which had arrived by truck.

The spill was reported to the following agencies and was issued the corresponding case numbers:

1. New Jersey Department of Environmental Protection, Case #91-4-3-1517-16
2. National Response Center, Case #66345
3. Newark Fire Department, Report #29803

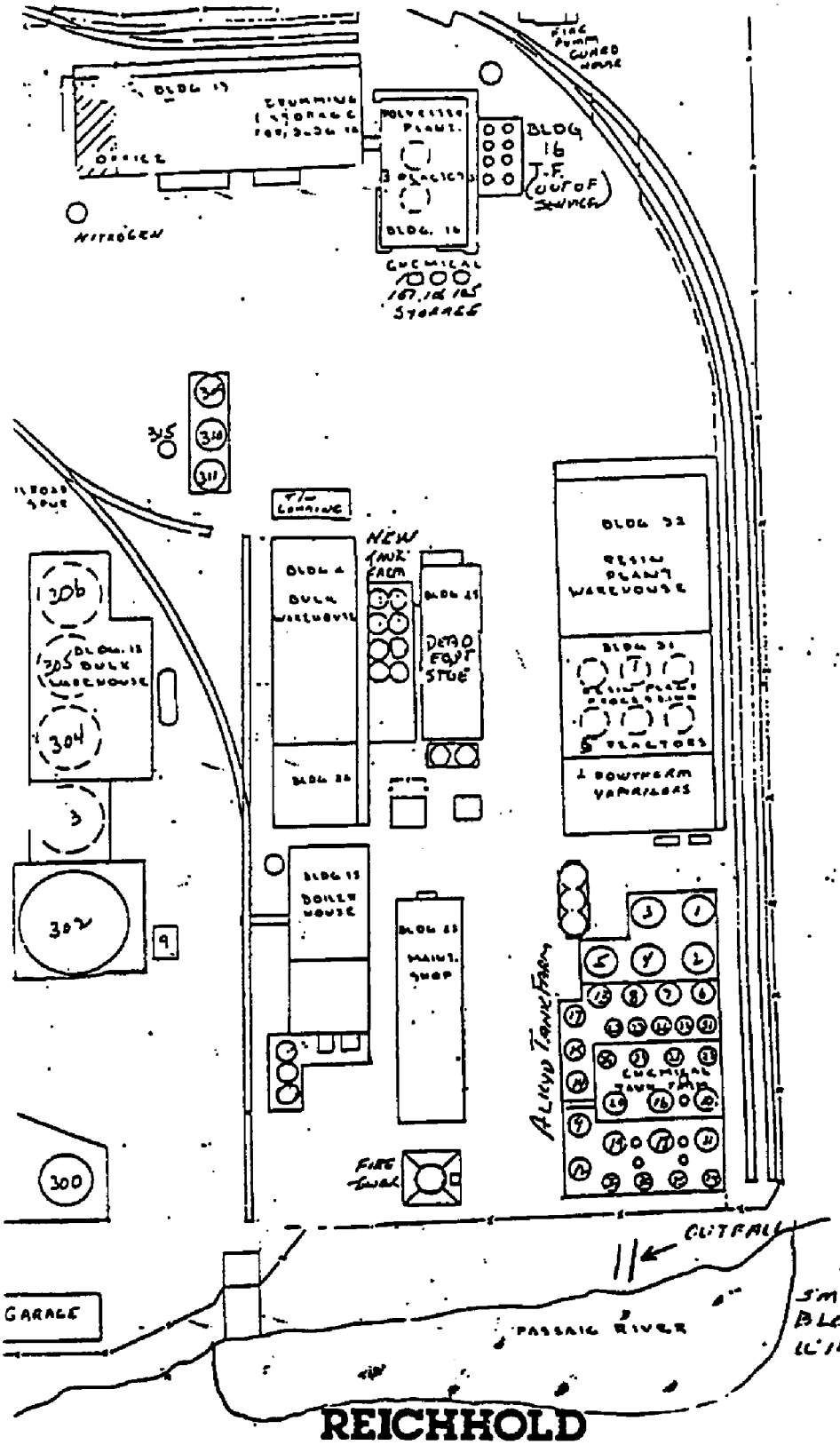
The following corrective actions are being taken:

1. The diked area will be cleaned using a high pressure water stream.
2. An inspection/test of the dike will be made to determine where leakage might be occuring. Any cracks will be repaired and, if necessary, the dike coated with a sealant.

Any questions, please call me at 201-589-3709.

Very truly yours,
Robert Naujelis
Environmental & Safety Manager

(201) 589-3709
(201) 817-9173 (Facsimile)
RN:cl



SPILL APPEARED AS SMALL PATCHES, UNTIL BLOWN TO SHORE BY ON-SHORE WIND.

REICHHOLD

400 Doremus Ave.
Newark, N.J. 07105

1117 MEC NFA JS FYI

J

New Jersey Department of Environmental Protection
COMMUNICATIONS CENTER NOTIFICATION REPORT

Received: 1/11/92 TD Log # 578
Operator:DAVE Case # 92-1-11-0147-00

Notification Type: Facility

Reported By	Affiliation	Phone
DAVE BRIGHT	REICHHOLD CHEM	919-481-9288
Street Address	**Municipality**	**State**
ELLIS ROAD	DURHAM	NC

C

Incident Location: Facility

Site REICHHOLD CHEMICAL Phone

Street Address	Municipality	County	State
400 DOREMUS AVE	NEWARK	ESSEX	NJ

Location Type Industrial Incident Date 1/10/92 Time 2335

Substance Released BUTYL ALCOHOL
Amount Released ( )UNK
ID:Known State Liquid CAS# 71363 Release Is Continuous
Additional Substances
Substance Contained? N Hazardous Material? Y TCPA? N A310 Letter? Y
COMU CODE: 0714 REF CODE: 001

Incident Description Fire,Explosion

Injuries? Y Public Evac? U Facility Evac? Y Public Exposure? U
Police On Scene? Y Firemen On Scene? Y DEP Requested? N Wind Sp/Dir

Contamination Of Air,Land,WATER Receiving Water NEWARK BAY
Status At Scene EXPLOSION IN VESSEL STARTED FIRE. POSSIBLY SEVERAL FLOORS INVOLVED. SEVERAL PEOPLE INJURED.

Responsible Party Known
Party REICHHOLD CHEMICAL Phone
Contact DAVE BRIGHT Title MGR ENV

Street Address	Municipality	County	State
400 DOREMUS AVE	NEWARK	ESSEX	NJ

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OFFICIALS NOTIFIED

	NAME	TITLE	PHONE	DATE	TIME
NJSP :	OEM	TPR WIDMIER	609-882-2000	1/11	0155
MUNIC:	NEWARK CITY	OPER MEADOWS	201-733-7400	1/11	0156
OTHER:					

	Name	Affiliation		Method	Date	Time	T/M
1.	B. DOYLE	DRPSR	ER1	Home	1/11	0153	T
2.		OEP	Monitoring		1/11		T
3.		DFG	HQ1		1/11		T

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COMMENTS

RESP 14, 16 & 17 ON SCENE

1/17 MBC JS

New Jersey Department of Environmental Protection
COMMUNICATIONS CENTER NOTIFICATION REPORT

Received: 1/10/92 TD Log # 577
Operator:DAVE Case # 92-1-10-2341-54

Notification Type: Municipal

Reported By	Affiliation	Phone
BOB SWALES	NEWARK OEM	201-456-0290
Street Address	Municipality	State
	NEWARK	NJ

Incident Location: Other

Site REICOLD CHEMICAL		Phone	
Street Address	Municipality	County	State
400 DOREMUS AVE	NEWARK	ESSEX	NJ
Location Type Industrial	Incident Date 1/10/92		Time 2335

Substance Released UNKNOWN SOLID
Amount Released ( )UNK
ID:Unknown State Solid CAS# Release Is Continuous
Additional Substances
Substance Contained? N Hazardous Material? U TCPA? U A310 Letter? N
COMU CODE: 0714 REF CODE: 001

Incident Description Fire,Explosion

Injuries? U Public Evac? U Facility Evac? U Public Exposure? U
Police On Scene? Y Firemen On Scene? Y DEP Requested? Y Wind Sp/Dir

Contamination Of Land,AIR Receiving Water UNK
Status At Scene FIRE AND EXPLOSION AT CHEMICAL FACTORY, 2 ALARMS AT THIS POINT. NO FURTHER INFORMATION AVAILABLE.

Responsible Party Known

Party REICOLD CHEMICAL		Phone	
Contact		Title	
Street Address	Municipality	County	State
400 DOREMUS AVE	NEWARK	ESSEX	NJ

OFFICIALS NOTIFIED

	NAME	TITLE	PHONE	DATE	TIME
NJSP :	OEM	TPR WIDMIER	609-882-2000	1/10	2345
MUNIC:					
OTHER:					

	Name	Affiliation		Method	Date	Time	T/M
1.	B. DOYLE	DRPSR	ER1	Home	1/10	2340	T
2.							
3.							

COMMENTS

(1)

New Jersey Department of Environmental Protection
Division of Environmental Quality
Bureau of Emergency Response
Region I

INVESTIGATION

Case #: 92-1-10-2341 File #:

Date:

Investigator: Christopher Gibbons
Walter Janicek
Wade Wiarda

Time Arrived:

Time Departed:

Location: Reichhold Chemical

Address: 400 Doremus Ave, Newark NJ

Responsible Party: Same

Mailing Address:

Location Phone #:

Health Dept. Rep: Phone # :

Origin of Complaint: Bob Swales, Newark OEM Phone # : 733-3660

Nature of Complaint: Explosion and fire at the above facility, Unknown materials are involved. DEPE Assistance is immediatly requested onsite.

Findings: Inspectors Janicek, Gibbons and Wiarda responded to the above location to investigate an explosion and fire at the Reichhold Chemical facility. On site, DEPE Inspectors met with Robert Swales, Newark OEM, Newark Hazmat, Newark Fire Officials, and Reichhold Chemical Management and the Sitiation was described as follows; At Approximitly 2335 hours on 1-10-92 an explosion and fire occured through out Reichhold process building #1, but most of the damage and fire was contained on the

fourth + fifth Floors of the building. At the time of the explosion, a process utilizing butyl Alcohol was under production, but it was unknown if this process had anything to do with the explosion. At the time of the explosion, seven workers were in building 31, and one worker was on the fifth floor. This worker received severe burns, [redacted] of the respitory track, and on his skin. The other six workers had assorted injuries from smoke inhalation & cuts from broken glass. Apparently there had been some form of delay in getting the injured to area hospitals, because it was not known what was needed to decon the workers. As Inspector Janicek remained with the Command post, Inspector Gibbons met with Company officials to get floor plans, and MSDS Sheets for any Suspected materials which could have been on the forth or Fifth floors. Inspector Wiarda during this time was coordinating air monitoring teams which were stationed in Bayonne and Jersey city, to the Smoke Crossing, Delware Bay. These teams were manned by the Bayonne Health Dept, and Hudson Regional Health Commission responders. According to Arther Dieffenbak, Plant Engineer, who was able to supply a floor plan for the building to Inspector Gibbons, mentioned production units which were utilizing the butly Alcohol on the fourth floor. Also on this floor was Storage for a finished product known as K-3961, B26, FJ which was a 25% Solvent 75% plastic product, and on the fifth floor was assorted materials, including formalhyde, and in a seperate part of the [redacted] the a peroxide Storage room. Information was relayed to

Inspector Wiarda where in turn he instructed the air monitoring teams to perform air monitoring Utilizing Hnu's, and [redacted] Dragger tubes for the following products of combustion, Benzene, Phosgene, Hydro-Chloric acid, Cyanide, and [redacted] formaldehyde. N/D readings were detected offsite during the Fire. A meeting was held to discuss all findings with [redacted] representatives from Newark Fire, OEM, Hazmat, Company officials, and Inspectors from the NJDEPE. At this time, Newark fire officials mentioned that fire fighters on the 5th Floor were complaining of raspy throats, and burning eyes. [redacted] After the meeting, Inspector Gibbons Donned Level B plus protection, and was escorted by facility Manager [redacted], who also donned proper levels of protection and entered Building 31, to perform air monitoring on the 4th and 5th Floors, to asess the ambient air quality, while the firemen were still overhaul the fires. Sprinkler system on the 4th & 5th Floors were still activated, and utilizing a MSA 360 explosimiter, N/D abnormal readings were detected. Dragger tubes for formaldehyde, Cyanide, Hydrochloric acid Acid test, and benzene were pulled, with no detectable quantities. A conversation was held with Firemen on the 5th Floor, and as a precaution they were advised to remain Utilizing their SCBA's. During Inspector Gibbons entry into the building, Inspector Wiarda was able to obtain Samples of the fire water run-off, to determine what decon if any would needed for the fire hoses. Another meeting was held where all of the entry/[redacted] air monitoring data, and water Sampling data was disussed. During this meeting Mr. Robert Negatu, Reichhold Chemical Environmental official

Was advised that a Contractor must be hired to vac up the fire run-off Water, obtain a Sample, and obtain Sample results as Soon as possible, due to the amount of Firefighter activity which occurred in the run-off. American Industrial Marine Services was Contacted at 0430 hours, and apraised of the Situation. American Industrial Marine was advised to bring 2 vac trucks, to vac up the fire Water, and place it In empty Clean tanker trailers on Site, for Storage pending analysis. At 0500 hours Inspector Charles Fitsimmons US EPA Region II, Response and Prvention Branch arrived on site and was updated with all pertinent info. Also responding to the Scene was a US EPA Technical assistance team (TAT) Which donned Level C protection and preformed air monitoring on the property perimiter utilizing an Hnu photo ionizer, Low levels were detected above background, directly ontop of small puddles of Spilled resigns. Inspectors Gibbons and Wiarda remained onsite until American Industrial Marine Services arrived onsite, and Clean up was disussed. Before Securing the Site, Inspector Gibbons met with Reichhold Chemical management from the main manufacturing plant in Raleigh N.C. who were to begin an internal investigation to determine the Cause of the explosion, and to arrange for an inspection of the building to address any and all Containers that might have been Compromised durring the explosion, and were to arrange for a Clean up of the 3rd Floor. A notice of Violation was issued to Mr. Robert Naulgalus, Reichhold Chemical for Discharge of hazardous Substances to the environment.

Conclusion: BER 1 responded to the Reichhold Chemical Corp facility to investigate an explosion and fire in process building #31. Building #31 is a 5 story building, which was severly damage durring the explosion and ensuing fire. The fire was contained to the 5th Floor. Because of a heavy smoke plume which was heading toward Bayonne, and Jersey City. Hudson Regional Health Commission and Bayonne Health Dept performed air monitoring, With no detectable hazardous Constituents. Durring an update meeting with Newark fire officials and Reichhold Chemical Officials, Newark fire officials mentioned firefighters on the 5th Floor who were complaining of burning eyes, and burning respitory tracts. Inspector Gibbons donned Level B plus protection, and with a Company official entered the facility to perform air monitoring. No readings were detected. American Industrial Marine was hired to vac up the fire water, and obtain Lab analysis results. OH Materials and AETC were hired to overpack and remove the peroxide drums, and clean up the 5th Floor By 1-28-92 the peroxide drums had been remoed.

Recomendations: This Case was refered to USEPA, BFO-m, DFG+W. NFA/BER1

On: 1/13/92 at 1230pm, Investigator Miranda along with Charlie Fitsimmons, U.S. E.P.A. had a meeting with Mr David Bright, ~~Reichhold Chemical~~ and Bob Noujelis, Reichold Chemical, in reference to clean up procedures. During the explosion the structural integrity of the roof on building 31 was jeopardized, the roof lifted up approximately 3 feet and then settled back down. OBRIEN and GEAR Engineers, Edison NJ are currently working on developing a clean-up plan that can be safely performed. It is now thought that butyl Acrylate along with a finished resin product is what was released as a result of the explosion.

Investigator Miranda later spoke to Mr Bob Noujelis and was advised that both O.H. Materials and FETC Inc are working in conjunction on a cleanup of the fifth floor of building # 31. The main priority was to remove peroxide drums that were stored in that floor, after the peroxide drums are removed the resin material on the ~~floor~~ floor of the building will be cleaned up. The Newark Fire department expressed great concern as to the contamination of water run off due to the firefighting efforts, 30,000 gallons of water was ~~pumped~~ vacuumed up by American Industrial Marine Service and stored in a bulk tanker at the incident location. The 30,000 gallons will be taken to Waste Conversion, TSD in Hatfield Pennsylvania as a non hazardous water ~~treatment~~ and ~~treated~~ subsequently treated. Tests were run for priority pollutants and TCLP

Reichhold Chemicals, Inc.
Coating Polymers & Resins Division
400 Doremus Avenue
Newark, NJ 07105

MAY 2 1991

David
Fyi

REICHHOLD

April 22, 1991

Office of Hazardous Substance Control
Division of Water Resources
P.O. Box 2809
Trenton, N.J. 08625
Attn.: Discharge Confirmation

Dear Sirs:

During the evening of April 2, 1991, approximately 1,600 gallons of N-Butyl Alcohol was released from an above ground storage tank at our facility located at the above address, and was reported by:

Robert Naujelis
Reichhold Chemicals, Inc.
400 Doremus Avenue
Newark, N.J. 07105
(201) 589-3709

Facility EPA ID Number: NJD092217892

The spill occurred as a result of over-filling of an above ground storage tank. The spilled material entered a cement diked area, and mixed with a synthetic resin material which had spilled two days earlier. The earlier resin spill was reported to the NJDEP and issued Case No. 91-4-1-1222-44.

Two tankwagon loads of N-Butyl Alcohol were to be delivered into the same tank. The storage capacity available in the tank was mistakenly calculated to be sufficient to accept the volume from both tankwagons. The first load was off-loaded. The second load was delivered while the operator tended to a third tankwagon. The spill went un-noticed until 9:00 a.m. on April 3rd, at which time is was reported to the NJDEP and other appropriate agencies.

Our cleanup contractor, Cambridge Chemical Cleaning Inc. was already on the scene tending to the previous spill. Cleanup operations continued on after the Newark Fire Dept. applied water to the spill in order to reduce the flash potential of the spilled alcohol.

The spill was reported to the following agencies, and was issued the corresponding case numbers:

1. New Jersey Dept. of Environmental Protection Case Number: 91-4-3-0950-03

2. National Response Center Case Number: 66345

(201) 589-3709
(201) 817-9173 (Facsimile)

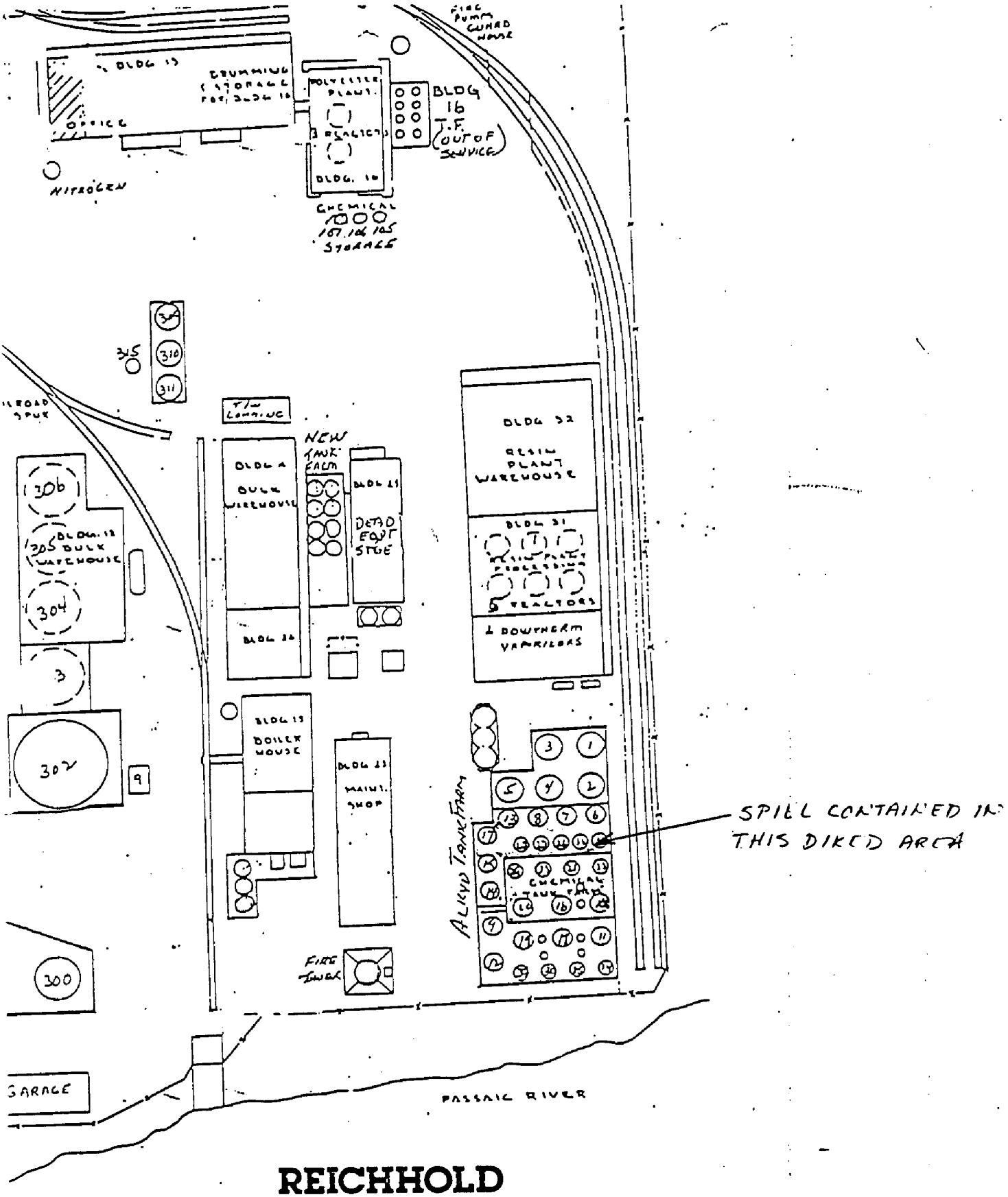
To prevent this situation from occurring in the future, tank loading procedures have been revised. A copy is attached for your reference.

Please call me at the above listed telephone number if I can be of any further assistance in this matter.

Very truly yours,

Robert Naujelis
Environmental & Safety Manager

RN/glm
attachment



REICHHOLD

400 Doremus Ave.
Newark, N.J. 07105

TEXTRON

Textron Inc.

40 Westminster Street
Providence, R.I. 02903
401/421-2800

February 14, 1997

Mr. Pat Evangelista
Emergency and Remedial Response Division
U.S. Environmental Protection Agency
290 Broadway, 19th Floor
New York, New York 10007-1866

Re: Diamond Alkali Superfund Site,
Passaic River Study Area

Dear Mr. Evangelista:

Enclosed is Textron's response to EPA's information request dated December 24, 1996 regarding the above-referenced matter. An extension to respond until February 14, 1997 was granted by Ms. Amelia Wagner, Assistant Regional Counsel.

Sincerely,

Jamieson M. Schiff
Environmental Counsel

JMS:sas
Enclosure

845030001

Textron Inc.'s Response to EPA Request for Information
Diamond Alkali Superfund Site, Passaic River Study Area

Textron Inc. sold its former Spencer-Kellogg Division, including its former Newark plant at Doremus Avenue, over eleven years ago. As part of that transaction it transferred facility documents and records. Hence, Textron's ability to respond to EPA's information request, which seeks very detailed information concerning events in some cases twenty years ago, is necessarily limited. Additionally, the request in certain instances seeks information concerning events that preceded Textron's operation of the facility. Nevertheless, Textron has attempted to respond based upon reasonably available information given the burdens that EPA's request impose in relation often to the probative value of the information sought.

1) **How long has your company operated at the facility designated above? If your company no longer operates at this facility, during what years did your company operate at the facility?**

Response:
Textron Inc. (hereinafter "Textron") operated its Spencer Kellogg Division, Newark Resin Plant (hereinafter "the facility") from December 1978 to July 1985.

2) **a) Does your company have or has it in the past had a permit or permits issued pursuant to the Resource Conservation and Recovery Act, 42 U.S.C. §6901 et seq.? If "yes", please provide the years that your company held such a permit and its EPA Identification Number.**

Response:
According to a March 8, 1984 letter from the NJDEP (attached as Exhibit 1), Textron filed a RCRA Part A permit application in connection with a hazardous waste storage tank. To the best of Textron's knowledge, the facility was never issued a RCRA Part B operating permit during Textron's ownership. The facility's EPA I.D. number was NJD092217892.

b) Does your company have or has it in the past had a permit or permits issued pursuant to the Federal Water Pollution Control Act, 33 U.S.C. §1251, et seq.? If "yes", please provide the years that your company held such a permit.

Response:
The facility held a Passaic Valley Sewerage Commissioners Permit from May 1981 to May 1986. See Permit No. 20401860, attached as Exhibit 2, and Textron's New Jersey

Environmental Cleanup Responsibility Act (ECRA) General Information Submission, attached as Exhibit 3.

3) Did your company receive, utilize, manufacture, discharge, release, store or dispose of any materials containing the following substances:

Response:
According to information contained in Exhibit 4 (Textron's ECRA Site Evaluation Submission and various raw material records), Textron received, stored and utilized the following substances in its production processes from 1978 to 1985:

	Yes	No
2,3,7,8 tetrachlorodibenzo-p-dioxin or other dioxin compounds		X
Acids: synethol acids, adipic acid, benzoic acid, phospheric acid, phosphoric acid, sulfuric acid, isophthalic acid, methacrylic acid, chlorendic acid, acrylic acid, fumaric acid and ammonium persulfate	X	
Ammonium hydroxide	X	
Benzene		X
Butanol	X	
Butyl acetate	X	
Ethanol	X	
Ethyl benzene	X	
Formaldehyde	X	
Methyl methacrylate	X	
Neopentyl glycol	X	
Phthalic anhydride	X	
other anhydrides, please specify maleic anhydride and trimellitic anhydride	X	
Polyaromatic hydrocarbons If "yes," please list specific compounds		X
Solvents, if "yes," please specify compound Aromatic Solvent 100, Aromatic Solvent 150, Aliphatic Solvent 140, VM&P naphtha, isoactylalcohol, methyl propyl ketone, MEK, isoparaffinic petroleum solvent and mineral spirits	X	
Styrene	X	
Toluene and vinyl toluene	X	
Xylene	X	
PCBs		X
Arsenic		X
Cadmium		X
Chromium		X
Copper		X

Lead	X
Mercury	X
Nickel	X
Silver	X
Zinc	X
Cyanide	X

For a discussion of substances that may have been released at the facility during historical operations, see response to Question 8.

4) **a) Provide a description of the manufacturing processes for which all hazardous substances, including, but not limited to, the substances listed in response to item (3), were a product or by-product.**

Response:
A description of Textron's manufacturing processes is contained in Exhibit 4, Textron's ECRA Site Evaluation Submission at Appendix 2.

b) During what parts of the manufacturing processes identified in the response to items (4)(a), above, were hazardous substances, including, but not limited to, the substances listed in response to item (3), generated?

Response:
Water of esterification was generated during resin reaction in Building 31. Since the reaction that produced this water was a reversible one, the water has to be removed from the process as it is generated. This was done by adding a reflux solvent (e.g., xylene or ethylbenzene) to form an azeotrope. The azeotrope allowed water to evaporate at temperatures below its normal boiling point. Overhead decanters were then used to collect the evaporated water. Until the early 1980's, this water was discharged directly to the Passaic Valley Sewerage Commission (PVSC) system. Beginning in the early 1980's, the water was separated from the sewer discharge line and piped to a receiving tank where the solvent was separated from the water. Any recovered solvent was then recycled back into the production process and the water was discharged to the sanitary sewer system. See Exhibit 4 at Appendix 2. Textron does not have information confirming the specific chemical composition of the esterification water.

Waste filter cake and press paper were generated during the filtration of finished products prior to filling in drums. The filter cake and press paper were transferred to open head drums, properly marked, closed and held for disposal until a full truck load (80 drums) accumulated. The chemical composition of the filter press waste was 30-50% diatomaceous earth, 30-50% filter paper, 10-20% waste resin and 0-10% organic solvents. When a full truck load of drums had been collected, the drums were opened, checked for liquids, closed and labeled with hazardous waste labels and flammable solid labels. The drums were then shipped, properly manifested, to a licensed TSDF for disposal. See Exhibit 4 at Appendices 2 and 8.

Cotton and/or nylon strainer bags were used to filter finished products prior to tank truck loading. The bags were thoroughly drained and disposed of with the drummed filter press waste. Drainings from the strainer bags were either recycled in the production process or collected as 1285 Premix and disposed as bulk hazardous waste, properly manifested, to a licensed TSDF. The chemical composition of the 1285 Premix was 10-60% organic solvents and 40-90% waste resin. See Exhibit 4 at Appendices 2 and 8.

Off-grade finished resin product was either collected in drums and resold as fuel or added over time to the 1285 Premix noted above for off-site disposal.

Waste solvent was generated from occasional cleaning of the process lines. This solvent was collected in drums and recycled back into the production process. According to former plant personnel, this waste solvent may have also been placed into the 1285 Premix drums at some point in the past. The time period during which this may have occurred is unknown.

The amounts of the waste generated per volume of finished product is unknown for all wastes noted above.

i) Describe the chemical composition of these hazardous substances.

Response:
See response to Question 4(b) above.

ii) For each process, what amount of hazardous substances was generated per volume of finished product?

Response:
See response to Question 4(b) above.

iii) Were these hazardous substances combined with wastes from other processes? If so, wastes from what processes?

Response:
See response to Question 4(b) above.

5) **Describe the methods of collection, storage, treatment, and disposal of all hazardous substances, including, but not limited to, the substances listed in response to item (3) and (4). Include information on the following:**

Response:
See response to Question 4b above.

a) Identify all persons who arranged for and managed the processing, treatment, storage and disposal of hazardous substances.

Response:
According to Textron's April 17, 1985 Hazardous Waste Contingency Plan contained in Exhibit 4, ECRA Site Evaluation Submission at Appendix 9, the following persons may have been involved in the processing, treatment, storage and disposal of hazardous wastes at the facility during Textron's period of ownership. The addresses and telephone numbers listed below for these former employees are those that were last known to Textron:

Arthur Dieffenbach
Plant Superintendent
Sebring Avenue
Bound Brook, NJ 08805
469-1509

Richard Barr
Plant Engineer
84 Shore Road
Andover, NJ 07821
(201) 852-5003

John Brooks
Plant Manager
Devon Road
Colonia, NJ 07067
381-6706

Scott Johnston
Process Engineer
111 West 7th Avenue, Apt. 8
Roselle, NJ 07203
(201) 245-4887

b) If hazardous substances were taken off-site by a hauler or transporter, provide the names and addresses of the waste haulers and the disposal site locations.

Response:
Textron objects to this request on the grounds that it is overbroad, unduly burdensome and not reasonably calculated to lead to the production of relevant information.

c) Describe <u>all</u> storage practices employed by your company with respect to all hazardous substances from the time operations commenced until the present. Include all on-site and off-site storage activities.

Response:
The information provided below is contained in Exhibit 4, ECRA Site Evaluation Submission at Appendices 1, 2, 3, 4 and 7. For a facility map refer to Exhibit 4 at Appendix 1.

Most dibasic acids and some polyols were received in 50 lb. bags by truck, unloaded at the west end of Building 31/32, and moved into the first floor of the building for temporary storage. These materials were then moved to the fifth floor of the building for more permanent storage.

Hydrocarbon solvents, and alcohols used as solvents, were delivered in both tank trucks and 55-gallon drums. Tank trucks were unloaded into above ground storage tanks

located in the tank farm east of Building 31. Drums were unloaded and stored on pallets in the outside yard area east of Building 25 or on the fifth floor of Building 32.

Phthalic anhydride was received in tank trucks and unloaded into aboveground storage tanks located east of Building 31.

Trimethyl propane and vinyl toluene were unloaded from either rail cars or tank trucks into above ground storage tanks located between Buildings 4 and 25.

Generally, bulk raw materials that were unloaded into storage tanks around the plant were subsequently transferred via above ground piping to storage tanks located on the fourth floor of Building 31/32. Occasionally, solvents were transferred via above ground piping directly into the thinning tanks located on the first floor of Building 31/32.

Drums of waste filter cake and press paper were transported via elevator and lift truck from the third floor of Building 31/32 to the first floor of Building 13 where they were held for disposal.

Strainer bag drainings and off-grade finished resin product (1285 Premix) were stored in one large above ground tank, or in 55-gallon drums located on a cement pad, prior to off-site disposal.

Drums of finished products were stored in an area on the second floor of Building 31 or in storage tanks located throughout the plant.

i) If drums were stored outside, were the drums stored on the ground or were they stored on areas that had been paved with asphalt or concrete? Please provide a complete description of these storage areas.

Response:
The drums stored by Textron outside the manufacturing building were stored on pallets. The facility was almost entirely paved during Textron's period of ownership.

ii) When drums were stored outside, were empty drums segregated from full drums?

Response:
Textron has no information or documents indicating whether empty drums were segregated from full drums during outside storage operations.

d) What processes do you use to treat your waste? What do you do with the waste after it is treated?

Response:
According to available information, and other than the separation of water from reflux solvent discussed in Question 4, Textron did not treat its waste streams prior to disposal.

6) **a) For process waste waters generated at the facility which contained any hazardous substances, including, but not limited to, the substances listed in response to item (3) and (4):**

i) Was the waste stream discharged into a sanitary sewer and if so, during what years?

Response:
According to available information, the only operations that generated waste waters were the coating resin manufacturing processes conducted in Building 31/32. Water of esterification from these operations was discharged to the PVSC sanitary sewer system. These discharges continued throughout Textron's ownership of the facility.

ii) Were they treated before being discharged to the sanitary sewer and if so, how? Please be specific.

Response:
Process waste waters that were discharged to the sanitary sewer system were not pretreated until the early 1980s. The subsequent pretreatment consisted of separating reflux solvent from the water. This was the only "treatment" of waste waters that Textron conducted during its ownership of the facility.

iii) If the waste waters were not discharged to the sanitary sawer, where were they disposed and during what years?

Response:
No waste waters were discharged to locations other than the sanitary sewer system.

iv) Please provide the results of any analyses performed on any waste process streams generated at the facility.

Response:
Sampling of waste waters in the early 1980s consisted of measurements of the lower explosive limit (LEL) as required by the PVSC. Textron was unable to locate copies of these analyses.

v) EPA has information that in 1976 a sanitary sewer line at your facility ruptured causing process waste water to discharge into adjacent surface water. Please provide a detailed description of this incident including the nature and content of the waste water, the results of sampling and any steps taken to mitigate the effects of the discharge.

Response:
This incident would have occurred before Textron's ownership and operation of the facility, since Textron did not acquire the facility until December 1978. All the information Textron has concerning this incident is contained in the enclosed Exhibit 4, ECRA Site Evaluation Submission at Appendix 5. Textron is not aware of any sampling or remediation that was conducted in response to this incident.

b) For floor drains or other disposal drains at the facility:

i) Did the drains connect to a sanitary sewer and if so, during what years?

ii) If the floor drains or other disposal drains at the facility were not discharged to the sanitary sewer, where did they discharge and during what years?

Response:
Floor drains in Building 31/32 were connected to the sanitary sewer system at the time of Textron's purchase of the facility in December 1978 until 1985 when Textron sealed these drains. Other than these floor drains, Textron is not aware of any other floor drains at the facility that were used for the disposal of waste waters. Textron believes that any remaining floor drains at the facility also would have discharged to the sanitary sewer system.

c) i) Did any storm sewers, catch basins or lagoons exist at any time at the facility and if so, during what years?

Response:
Textron has no knowledge of the existence of lagoons at the facility. Storm sewers and associated catch basins exist at the facility. Textron is not aware of the installation date(s) of these structures. No other catch basins exist at the facility.

ii) If catch basins or lagoons existed, were they lined or un-lined?

Response:
The storm water catch basins that existed at the facility during Textron's ownership were lined with concrete.

iii) What was stored in the lagoons?

Response:
Not applicable.

iv) Where was the discharge from any of these structures released and during what years? Was this discharge treated before its release and if so, how and during what years? What was the chemical composition of any waste waters released, and during which years?

Response:
All storm water from the storm sewers and associated catch basins was discharged to the Passaic River. Textron did not pretreat the storm water prior to its discharge nor conduct any sampling of the storm water that was discharged to these structures. Textron did not discharge any process waste waters to the storm sewers and catch basins.

d) Please supply diagrams of any waste water collection, transport or disposal systems on the property.

Response:
A diagram of the storm water collection and conveyance system is provided on Plate 1 in the March 1987 report contained in Exhibit 7.

7) **a) For each hazardous substance, including, but not limited to, the substances listed in response to item (3) or identified in the responses to item (4), above, provide the total amount generated during the operation of the facility on an annual basis.**

Response:
Exhibit 4, ECRA Site Evaluation Submission at Appendix 2, indicates that approximately eighty 55-gallon drums of filter cake, press paper and strainer bag waste were generated per month by the facility. The annual volume of esterification water, strainer bag drainings and process line solvent washings generated is unknown.

b) Were any hazardous substances, including, but not limited to, the substances listed in response to item (3) or identified in the responses to item (4), above, disposed of in the Passaic River or discharged to the Passaic River? If yes, identify the hazardous substances, estimate the amount of material discharged to or disposed of in the Passaic River and the frequency with which this discharge or disposal occurred. Also please include any sampling of the river which you might have done after any discharge or disposal.

Response:
To the best of Textron's knowledge, no hazardous substances were intentionally disposed of in, or discharged to, the Passaic River during Textron's ownership of the facility.

8) **Please identify any leaks, spills, explosions, fires or other incidents of accidental material discharge that occurred at the facility during which or as a result of which any hazardous substances, including, but not limited to, the substances listed in response to item (3) or (4), were released on the property, into the waste water or storm drainage system at the facility or to the Passaic River. Provide any documents or information relating to these incidents, including the ultimate disposal of any contaminated materials.**

Response:
Accidental discharges of hazardous substances to the property, to the waste water or storm water systems, or to the Passaic River during Textron's ownership of the facility are discussed in (b) and (c), below. Textron is also aware of one such release that occurred subsequent to Textron's ownership of the facility. In November 1991, during Textron's implementation of a soil remediation project conducted during the ECRA proceeding at the facility, a thin layer of free-phase resinous material was encountered on the water surface during excavation of soils to the water table along the northern railroad siding at the facility. Subsequently, following a period of heavy rainfall and high tides, a small amount of this material (i.e., less than 5 gallons) was released to the Passaic River. Textron's contractors immediately contained the spill with collection booms. The NJDEP was notified consistent with N.J.A.C. 7:1E-5.3 and there were no enforcement actions taken. Textron filed a spill report with the NJDEP dated December 20, 1991. See Exhibit 5, Monthly ECRA Progress Report dated December 16, 1991. Textron has not been able to locate a copy of the spill report.

a) Please provide the results of any sampling of the soil, water, air or other media after any such incident and before and after clean-up. Please provide in this information all sampling performed for or by NJDEP.

Response:
Textron is not aware of any sampling, including sampling by or for the NJDEP, that was conducted during its ownership of the facility to address any accidental discharges of hazardous substances to the property, into the waste water or storm water systems, or to the Passaic River. Further, no sampling of environmental media was conducted in response to the accidental discharge of resinous material to the Passaic River in November 1991.

b) EPA has information that in 1977, 1978 and 1979 there were three separate incidents involving the discharge of resin to the facility's property or to adjacent surface waters. Please provide detailed descriptions of these incidents including the constituents of the discharged material, how the discharge occurred, any steps taken to mitigate the effects of the spills, and any actions taken to prevent further occurrences. Please include any sampling results.

Response:
The only documented discharges of resin that Textron is aware of are described in Exhibit 4, ECRA Site Evaluation Submission at Appendix 5. Accidental spills and leaks of various materials may have occurred during the manufacture and storage of coating resins at the time Textron owned the facility. Areas potentially impacted by these spills were addressed as a part of the ECRA investigation. See response to Question 12 for further information regarding these areas.

c) Please describe in detail all spills of phthalic anhydride onto the facility's property or into adjacent surface waters. Please describe how the discharge occurred, any steps taken to mitigate the effects of the spills, and any actions taken to prevent further occurrences.

Response:
Spills of phthalic anhydride that occurred during Textron's ownership of the facility are described in Exhibit 4, ECRA Site Evaluation Submission at Appendix 5. Areas potentially impacted by these spills were addressed as a part of the ECRA investigation. See response to Question 12 for further information regarding these areas.

9) **a) Was your facility ever subject to flooding. If so, was the flooding due to:**

i) overflow from sanitary or storm sewer back-up, and/or

ii) flood overflow from the Passaic River?

b) Please provide the date and duration of each flood event.

Response:
Textron is not aware of any flooding which occurred at the facility during Textron's period of ownership.

10) **Please provide a detailed description of any civil, criminal or administrative proceedings against your company for violations of any local, State or federal laws or regulations relating to water pollution or hazardous waste generation, storage, transport or disposal. Include information on the Administrative Consent Order, ECRA Case #85403. Provide copies of all pleadings and depositions or other testimony given in these proceedings.**

Response:
A copy of the Administrative Consent Order for ECRA Case No. 85403 is attached as Exhibit 6. Textron does not possess copies of any pleadings, depositions or testimony given in this matter.

The Coast Guard assessed a $50 fine to Textron as a result of a September 10, 1979 spill of an unknown amount of resin at the facility which entered an underground flume and discharged into Newark Bay. See Exhibit 4, ECRA Site Evaluation Submission at Appendix 5. Textron does not possess copies of any pleadings, depositions or testimony related to this matter.

11) **Provide a copy of each document which relates to the generation, purchase, use, handling, hauling, and/or disposal of all hazardous substances, including, but not limited to, the substances listed in response to item (3) or (4). If you are unable to provide a copy of any document, then identify the document by describing the nature of the document (e.g. letter, file memo, invoice, inventory form, billing record, hazardous waste manifest, etc.). Describe the relevant information contained therein. Identify by name and job title the person who prepared the document. If the document is not readily available, state where it is stored, maintained, or why it is unavailable,**

Response:
Textron objects to this question on the grounds that it is overbroad, unduly burdensome, and not reasonably calculated to lead to the production of relevant information.

12) a) Did you or anyone else sample the soil, ground water, surface water, ambient air or other environmental media at the facility for purposes other than those identified in questions above?

Response:
Textron and its agents have collected samples of soil, ground water, surface water and ambient air in compliance with the requirements of ECRA under Case No. 85403 during numerous phases of sampling and cleanup. Textron has not collected samples of other environmental media as part of this ECRA proceeding.

b) If so, please provide all other documents pertaining to the results of these analyses.

Response:
Attached herein as Exhibit 7 are the relevant documents that provide the results of the soil, ground water, surface water and ambient air sampling conducted by Textron under ECRA Case No. 85403. These documents are:

- 1987, March. ENVIRON Corporation. *Presentation of the ECRA Sampling Plan Results.* Volumes I and II.
- 1988, June. ENVIRON Corporation. *Presentation of the Phase II ECRA Sampling Plan Results and Remediation Strategy/Part I Cleanup Plan.* Volume I.
- 1990, October. ENVIRON Corporation. *Presentation of Additional ECRA Sampling Results and Revised Cleanup Plan.* Volume I.
- 1990, December 27. Letter to M. Fisher of the NJDEP providing results of quarterly ground water monitoring.
- 1991, April 12. Letter to S. Balakrishnan of the New Jersey Department of Environmental Protection (NJDEP) presenting results of pre-remediation and quarterly ground water sampling.
- 1991, May 22. Letter to S. Balakrishnan of the NJDEP presenting results of additional pre-remediation soil sampling.
- 1991, September 16. ENVIRON Corporation. Letter and progress report to S. Balakrishnan of the New Jersey Department of Environmental Protection (NJDEP) providing results of pre-remediation sampling.
- 1992, July. Canonie Environmental. *Final Report on Soils Remediation.*

- 1994, January 12. ENVIRON Corporation. Letter to M. Buriani of the NJDEP providing summarized results of the four rounds of post-cleanup quarterly ground water monitoring.

- 1995, January 17. ENVIRON Corporation. Letter to M. Buriani of the NJDEP presenting results of confirmatory soil sampling and ground water sampling in and around Building 31/32.

- 1995, July. ENVIRON Corporation. *Presentation of the April-May 1995 Ground Water Sampling Program Results and Proposed Remedial Action Work Plan.*

13) a) Has your company owned the facility at the location designated above? If so, from whom did your company purchase the property and in what year? If your company subsequently sold the property, to whom did your company sell it and in what year? Please provide copies of any deeds and documents of sale.

Response:
Textron owned the Spencer Kellogg Division, Newark Resin Plant from December 1978 to July 1985. Textron purchased the property from Ashland Oil, Inc. and sold it to NL Industries, Inc. A copy of the deed from Ashland Oil reflecting the purchase of the property is attached as Exhibit 8. Textron can not locate at this time a copy of the deed it transferred to NL Industries reflecting the property's sale.

b) If your company did not own the facility, from whom did your company rent the facility and for what years? Please provide copies of any rental agreements.

Response:
Not applicable.

c) To the extent that you know, please provide the names of all parties who owned or operated the facility during the period from 1940 through the present. Describe the relationship, if any, of each of those parties with your company.

Response:
The names and dates of ownership of the facility from 1940 through the present are as follows. None of these entities (other than Textron Inc.) are related to Textron Inc.:

1943 - 1951	U.S. Industrial Chemical, Inc.
1951- 1954	National Distillers Products
1954 - 1968	Archer-Daniels-Midland Co.
1968 - 1978	Ashland Oil, Inc.
1979 - 1985	Textron Inc.
1985 - 1989	NL Industries, Inc.
1989 - Present	Reichhold Chemicals, Inc.

14) Answer the following questions regarding your business or company. In identifying a company that no longer exists, provide all the information requested,

except for the agent for service of process. If your company did business under more than one name, list each name.

a) State the legal name of your company.

b) State the name and address of the president or the chairman of the board, or other presiding officers of your company.

c) Identify the state of incorporation of your company and your company's agent for service of process in the state of incorporation and in New Jersey.

d) Provide a copy of your company's "Certificate of Incorporation" and any amendments thereto.

e) If your company is a subsidiary or affiliate of another company, or has subsidiaries, or is a successor to another company, identify these related companies. For each related company, describe the relationship to your company; indicate the date and manner in which each relationship was established. Please include in any explanation, the details of the relationship between Spencer-Kellogg and Textron.

f) Identify any predecessor organization and the dates that such company became part of your company.

g) Identify any other companies which were acquired by your company or merged with your company.

h) Identify the date of incorporation, state of incorporation, agents for service of process in the state of incorporation and New Jersey, and nature of business activity, for each company identified in the responses to items (14) (e), (f), and (g), above.

i) Identify all previous owners or parent companies, address(es), and the date change in ownership occurred.

Response:
Textron objects to this request on the grounds that it is overbroad, unduly burdensome and not reasonably calculated to lead to the production of relevant information. Without waiving its objection, Spencer-Kellogg was a former division of Textron Inc. from December 1978 until July 1985. Textron Inc. is a publicly held company, incorporated under the laws of Delaware, and headquartered in Providence, RI. Enclosed is a copy of its most recent annual report. Its agent for service of process in New Jersey is The Corporation Trust Company, 820 Bear Tavern Road, West Trenton, NJ 08628.

15) **Provide the name, address, telephone number, title and occupation of the person(s) answering this "Request for Information" and state whether such person(s) has personal knowledge of the responses. In addition, identify each person who assisted in any way in responding to the "Request for Information"**

and specify the question to which each person assisted in responding. Please include the names and addresses of former employees who were contacted to respond to any of the questions.

Response:
The following persons assisted in the preparation of the responses to this Request for Information. Scott MacDonald and William Kraft have knowledge of the former Textron facility through conducting extensive work as part of the ECRA/ISRA investigation at the facility. Elizabeth Sanders assisted Mr. MacDonald and Mr. Kraft with the response.

Scott MacDonald, Manager
William Kraft, Senior Associate
Elizabeth Sanders, Technical Assistant
ENVIRON Corporation
Carnegie Center
Princeton, New Jersey 08540

Jamieson Schiff, Environmental Counsel, Textron Inc., 40 Westminster Street, Providence, Rhode Island 02903, also assisted.

ENVIRON

December 16, 1991

HAND DELIVERY

Mr. Sal Balakrishnan
BEECRA Cleanup Oversight Section
New Jersey Department of
Environmental Protection and Energy
401 East State Street
Trenton, NJ 08625

Re: Textron Inc. - Former Spencer Kellogg Facility
Newark, Essex County, New Jersey
ECRA Case No. 85403

Dear Mr. Balakrishnan:

Enclosed please find the progress report describing the activities associated with implementation of the Cleanup Plan at the former Spencer Kellogg facility for November 1991. Also included in this report are responses to several issues raised in your October 31, 1991 letter to Textron.

Please contact us if you have any questions or need further information.

Sincerely,

Scott E. MacDonald
Manager

Julia L. Mermelstein
Senior Associate

SEM/JM:dmd
0288E:PAA01F80.W51

Enclosures
cc: J. Schiavone
R. Lawrence

ENVIRON Corporation · Counsel in Health and Environmental Science
210 Carnegie Center, Suite 201, Princeton, New Jersey 08540 · (609) 452-9000 · FAX (609) 452-0284

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CLEANUP PLAN IMPLEMENTATION
PROGRESS REPORT

Textron Inc. - Former Spencer Kellogg Facility
ECRA Case No. 85403

November 1991

1. Activities Performed This Reporting Period

The activities performed during this reporting period include: (1) continued discussions with Reichhold personnel regarding site coordination issues; (2) final modifications to the low temperature thermal aeration (LTTA) unit and initial trial testing; (3) temporary cessation of excavation activities beneath Building 4 (AEC 12); (4) site preparation activities, including railroad track removal; (5) excavation and post-excavation sampling in various AECs; (6) off-site disposal of several waste streams; and (7) activities related to the observation of free-phase material in AEC 3.

Site Coordination Issues

On November 7, 14, and 21, 1991, representatives of ENVIRON, Canonie, and Reichhold met at the site to discuss ongoing site coordination issues, including access to particular areas of the site and alternative piping requirements for feedstock delivery to the large tank farm during remediation of AEC 7. The pipe relocation system for AEC 7 was constructed and tested during November 1991. The new piping system will be tied into the existing lines in December 1991 prior to initiation of remedial activities in this area.

Final Modifications to the LTTA Unit and Initial Trial Run

As indicated in the November 15, 1991 progress report to NJDEPE, Canonie made final connections of all LTTA system components during October 1991. Final modifications to the system's quench tower, including installation of a new booster

pump and piping, were made during this reporting period to increase the flow rate in the quench tower, thus completing the setup of the LTTA system.

Canonie conducted the initial trial run of the LTTA unit on November 26, 1991. Approximately 120 tons of excavated soil from AECs 3, 4 and 5 were processed during the six-hour test. Preliminary analytical results of hourly post-treatment samples indicated levels of toluene, ethylbenzene and xylene significantly below 10 ppm and levels of benzene at or below 1 ppm. The presence of benzene in these samples was not expected since this compound was not previously detected at the site. The occurrence of benzene in the post-treatment sampling results will continue to be evaluated during the trial testing period. Laboratory error may account for some portion of the benzene results. Final results from post-treatment sampling of this and other trial runs to be conducted in early December will be discussed and presented in the progress report for December 1991. As previously discussed with S. Balakrishnan of NJDEPE, all analytical data generated during remediation, as well as applicable Quality Assurance/Quality Control (QA/QC) documentation, will be submitted with the final report documenting the results of site cleanup.

Remedial Activities Beneath Building 4 (AEC 12)

As indicated in the November 15, 1991 progress report, approximately 40% of AEC 12 had been excavated as of October 31, 1991. Textron elected to dispose of the resinous materials removed from beneath Building 4 (AEC 12) as New Jersey hazardous waste (C433) at Chemical Waste Management's landfill in Model City, New York. During November 1991, additional excavation activities were temporarily suspended pending final approval from the Model City facility for disposal of these materials. Limitations regarding staging areas for roll-off containers on-site precluded the generation of additional materials for off-site disposal. On November 13, 1991, seven rolloffs of resinous material (including resin from AEC 19) were sent to Chemical Waste Management's landfill in Model City, New York. Canonie also pumped approximately 20,000 gallons of water from AEC 12 that was ultimately disposed of at Chemical Waste Management's water treatment facility in Newark, New Jersey as non-hazardous wastewater.

In addition, high tides on October 30 and 31, 1991 resulted in flooding at the site, including the filling of the excavation beneath Building 4 (AEC 12) with approximately 25,000 gallons of water. Excavation in this AEC could not be resumed until the stormwater was removed. The stormwater from the excavation was treated on-site using activated carbon prior to being discharged to the Passaic Valley Sewerage Authority (in accordance with appropriate approval). Excavation in AEC 12 resumed on December 10, 1991.

Site Preparation Activities in AECs 3, 4, 5, 16, 19, and 25

During this reporting period, Canonie removed the railroad tracks in AECs 3, 4, 5, 16, and 25, removed the northern and western sides of the retaining wall surrounding AEC 19 to facilitate equipment access, and removed dried, resinous materials from the ground surface in AEC 19. Disposal of these materials is discussed in the section of this progress report entitled "Off-Site Waste Disposal."

Excavation Activities and Post-Excavation Sampling

During November 1991, Canonie excavated a "hot spot" area in AEC 3, excavated AECs 23 and 28 for base/neutral compounds (BNs) and performed additional excavations in AECs 3, 4, 5 and 9 to address volatile organic compounds (VOCs). Relevant excavation activities and post-excavation sampling are discussed below. The locations of most of the post-excavation samples are shown on Figure 5 of the May 1991 Work Plan, although a number of additional sampling locations described below were not proposed in the May 1991 Work Plan. A complete list of samples collected during November 1991, as well as drawings showing the locations of samples not proposed in the May 1991 Work Plan, are provided as Attachment 1 to this progress report. The available analytical results for samples collected during November 1991 are provided as Attachment 2 to this progress report.

a) **BN Areas**

As proposed in the May 1991 Work Plan, Canonie excavated an area within AEC 3 and all of AECs 23 and 28 due to the presence of BNs above site-specific cleanup criteria. Post-excavation samples were subsequently collected from

sampling locations P-5 and P-6 along the western and eastern sidewalls of the excavation in AEC 3, from sampling locations P-35 and P-36 along the western and eastern sidewalls of the excavation in AEC 23, and from sampling locations P-17 and P-18 along the western and eastern sidewalls of the excavation in AEC 28. These sample locations are shown on Figure 5 of the May 1991 Work Plan. The soil samples obtained from each of the referenced locations were collected from a depth of 1.5 feet below ground surface and analyzed for BN+15 using EPA Method 8270. The specific results of this sampling are discussed below.

AEC 3

The sample results from P-5 and P-6 indicated levels of carcinogenic polycyclic aromatic hydrocarbons (CaPAHs) and total BNs above site-specific cleanup criteria. To ensure that all BNs within this area were appropriately remediated, Canonie extended the excavation approximately 10 feet in both the western and eastern directions and collected additional post-excavation samples along new western and eastern sidewalls (samples P-5A and P-6A) from a depth of 1.5 feet below ground surface. The analytical results from both of these additional samples exceeded the site-specific action level for CaPAHs, and the sample from P-6A also exceeded the site-specific action level for total BNs. To further evaluate the extent of CaPAHs within AEC 3, Canonie collected two additional samples at 10 foot intervals west and east of P-5A and P-6A, respectively. These sample locations are identified as P-5B, P-5C, P-6B, and P-6C. The analytical results for these additional samples were below site-specific action levels for CaPAHs and total BNs. Therefore, the extent of these compounds within AEC 3 has been fully delineated. The excavation in this area will be extended to clean sample locations P-5B and P-6B and no further post-excavation sampling will be conducted.

AEC 23

The analytical results for samples P-35 and P-36 were below the site-specific action level for CaPAHs, and the sample result from P-36 was also below the site-specific action level for total BNs. The sample from P-35, however, exceeded the site-specific action level for total BNs due to the presence of high concentrations

(1,700 ppm) of bis(2-ethylhexyl) phthalate. Because the presence of this compound is atypical for this site and the results, in part, could be indicative of plastic contamination introduced during sampling and/or analysis, Canonie collected an additional sample adjacent to previous location P-35 (sample P-35A) to confirm the presence of this compound. The analytical results for this additional sample were below the site-specific action levels for both CaPAHs and total BNs (Bis[2-ethylhexyl] phthalate was detected at 0.17 ppm). Although the results of the confirmatory sample do not indicate unacceptable BN levels along the sidewall, Canonie will extend the excavation to the east a minimum of one foot and collect one additional sidewall sample ~~to confirm that the BN contamination in this area has been~~ adequately addressed

AEC 28

Samples were collected from locations P-17 and P-18, along the eastern and western sidewalls of the excavation in AEC 28. The analytical results for these samples are expected in December 1991 and will be included with the progress report for that period.

b) VOC Areas

As proposed in the May 1991 Work Plan, Canonie excavated soils in AECs 3, 4, 5 and 9, all of which are being remediated for VOCs (with the exception of the BN "hot spot" in AEC 3 described above that is being remediated for both BNs and VOCs). Relevant excavation activities and post-excavation sampling in each of these AECs are described below. All post-excavation soil samples were collected at a depth of 1.5 feet below ground surface and analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX) using EPA Method 8020.

AECs 3, 4, and 5

To maintain the physical integrity of the northern retaining wall along AECs 3, 4 and 5, soils were excavated to within one foot of the wall. As required by NJDEPE's October 31, 1991 letter, post-excavation samples were subsequently collected at 30-foot intervals along the exposed sidewall in these areas. Preliminary

analytical results for a number of these samples exceeded the site-specific cleanup criteria for the target VOCs. As a result, Canonie collected additional samples approximately one foot deeper within the sidewalls at those former sampling locations (at the same depth below ground surface) containing VOCs in excess of the cleanup criteria. The analytical results for these additional samples, however, have not yet been received. All verified analytical data from this area will be provided and discussed with the progress report for December 1991.

Canonie collected additional post-excavation samples along the southern borders of AECs 4 and 5 (beneath the tank farm wall) because approximately 8 to 12 inches of soil were exposed during low tide conditions. It is currently believed, however, that these soils samples may have been collected from a zone which is below the ground water level at high tide. The preliminary analytical results for a number of these samples exceeded the site-specific cleanup criteria for target VOCs. Canonie subsequently collected additional samples approximately 1.5 feet further into the sidewalls at these former sampling locations (at the same elevation) containing VOCs in exceedance of the cleanup criteria. The analytical results have not yet been received. All verified data will be provided and discussed with the progress report for December 1991. A proposal for further action, if any, in this area will be made following the receipt of the additional analytical results and the determination of the actual high tide conditions in AECs 4 and 5.

No samples were collected along the southern border of AEC 3 (along the loading dock wall) because the building's foundation extends several feet below the water table.

Three additional samples (P-64, P-65, and P-66) not proposed in the May 1991 Work Plan were collected in the southeastern portion of AEC 5, which contains a pump pad, loading rack, and stairway pad (hereinafter referred to as the "loading rack area"). Soil excavation in this area could not be conducted under the structures in this area and could not be extended to the tank farm wall due to access problems and concerns about maintaining the physical integrity of these features. The analytical results for all three samples were below the site-specific action levels for target VOCs. Therefore, no further excavation of soils or remedial action will be undertaken in the loading rack area.

Samples were also collected from locations P-9, along the eastern border of AEC 5, and P-10, between Building 31/32 and the tank farm. The analytical results for the sample from P-9 were below site-specific action levels for target VOCs. Therefore, the extent of the excavation along the eastern border of AEC 5 has been fully delineated. The analytical results for the sample from P-10 exceeded the site-specific action levels for VOCs. The excavation in that area will be extended and an additional post-excavation sample will be collected. The specific results for these samples will be provided with other data from AECs 3, 4, and 5 in the progress report for December 1991.

AEC 9

As proposed in the May 1991 Work Plan, Canonie excavated the area within AEC 9 (beneath Building 16) as shown on Figure 5 of the May 1991 Work Plan. In response to NJDEPE's February 8, 1991 conditional approval letter, the post-excavation sample (P-21) from this area was analyzed for both BTEX and BN compounds. The analytical results for this sample were below the site-specific action levels. Therefore, no further action is required in this AEC.

Activities Related to the Observation of Free-Phase Material in AEC 3

Subsequent to completion of excavation activities in AEC 3, a thin layer of free-phase resinous material was discovered on the ground water in the bottom of the AEC 3 excavation. This material appears to have originated from under the current production building south of AEC 3. A period of heavy rainfall also contributed to the release of a small amount (something less than 5 gallons) of this material to Newark Bay. This material was immediately contained by collection booms. As you know, both the initial observation and the release to Newark Bay were reported to NJDEPE in the manner provided in N.J.A.C. 7:1E-5.3 required under applicable regulations. A final spill report is being prepared by Textron and will be provided to the agency on December 20, 1991.

In response to the observation of free-phase material in AEC 3, gravel-filled trenches have been installed along the loading dock of Building 31/32 in areas where a thin layer of product was observed. These trenches will serve to collect and contain

this material. Two vertical stand-pipes have also been installed through the gravel in the trench so that recovery of the free-phase material can be facilitated. ENVIRON is currently working with Reichhold personnel to review structural drawings and to obtain access to areas beneath the building to better understand the potential extent and source(s) of this material. Textron will report to NJDEPE in future progress reports any information with regard to the source(s) of the material as well as any actions taken to address these sources. Textron reserves all rights and defenses with regard to its responsibilities, if any, for remediating these sources.

Off-Site Waste Disposal

The following disposal activities took place during November 1991: approximately 220 cubic yards (11 rolloffs) of asphalt from various AECs were sent for recycling to Clayton Block in Lakewood, New Jersey; approximately 55 cubic yards (5 rolloffs) of concrete from AEC 19 were sent for recycling to Clayton Block in Lakewood, New Jersey; approximately 140 cubic yards (7 rolloffs) of excavated resin from AECs 12 and 19 were sent to Chemical Waste Management's landfill in Model City, New York; and approximately 20,000 gallons of water from excavated resin in AEC 12 were sent to Chemical Waste Management's water treatment facility in Newark, New Jersey.

As described in the November 15, 1991 progress report, Textron intends to dispose of miscellaneous debris generated during remediation as non-hazardous waste. During November 1991, Canonie prepared an application for classification of this waste as ID-13, and submitted it to Mr. Richard Johnson of NJDEPE's Division of Hazardous Waste Management on December 3, 1991.

2. Data Produced in November 1991

As discussed above, Canonie collected post-excavation samples for BN analysis in AECs 3, 9, 23, and 28 and for VOC analysis in AECs 3, 4, 5, and 9 during November 1991. The available analytical results of this sampling are provided as an attachment to this progress report.

3. Modifications to the October 1990 Cleanup Plan

AEC 4

In the October 1990 Cleanup Plan, ENVIRON indicated that the surficial soils in AEC 4 contained resinous materials that would not be suitable for low temperature thermal treatment, but would be scraped away and transported off-site for disposal at an appropriate disposal facility. During November 1991, however, Canonie determined that the dried, resinous material can be processed in the LTTA unit. Therefore, both the resinous surface materials and the soils excavated from this area will be processed on-site.

AEC 5

As discussed above, Canonie determined that the southeastern portion of AEC 5 (the loading rack area) could not be excavated to the tank farm wall (as indicated in the October 1990 Cleanup Plan) due to the presence of a pump pad, loading rack, and stairway pad which rest on shallow foundations. As described in Section 1 of this progress report, post-excavation samples were collected in this area, and the analytical results were below the site-specific action levels for VOCs. As a result, no further excavation of soils is planned for this section of AEC 5.

Project Schedule

An updated project schedule based upon current projections is provided as Attachment 3 to this progress report. This project schedule represents planned activities (i.e., desirable start and completion dates) and is not intended to establish firm deadlines. At the time of the submittal of the November 15, 1991 progress report, it was anticipated that the completion of soil processing and preparation of the Final Report would take place within approximately the dates projected in the October 1990 Cleanup Plan. However, based on the results of the LTTA trial run, the actual throughput rate of the unit is expected to be 15 tons per hour (tph) rather than the 30 tph rate on which the previous completion date was based. The current project schedule anticipates completion of soil processing and preparation

of the Final Report by April 1, 1992. Textron will notify NJDEPE of any additional modifications to the project schedule in future progress reports.

4. Remedial Costs and Percent of Total Remedial Activities to Date

Costs for remediation activities through November 1991 total approximately $725,000. This cost includes Canonie's activities related to obtaining permits, mobilizing to the site, removing asphalt, excavation in several AECs, and initial testing of the LTTA unit. Approximately 36% of all remedial activities has been completed. Therefore, the projected costs to completion appear to be within the amounts estimated for purposes of financial assurance.

5. Information Requested in NJDEPE's October 31, 1991 Letter

In its October 31, 1991 letter, NJDEPE requested that responses to a number of issues be submitted with the monthly progress report due December 15, 1991. These issues included (1) the locations where field instrument measurements to monitor air quality will be taken, and (2) acknowledgement of the requirements related to asbestos concerns. In addition, the letter requests that NJDEPE be notified at least 14 days prior to the initiation of any sampling and/or cleanup activity at the site. These items are discussed below.

Air Quality Monitoring

In its October 31, 1991 letter, NJDEPE states that "the [May 1991 Work Plan's] air emissions contingency plan (section 5.7) does not specify the locations where field instrument measurements to determine potential exceedances of applicable air quality standards will be taken," and requests clarification. The clarification requested is provided below.

During remediation, Canonie has been and will continue to take field measurements of air quality at the following locations: (1) downwind of excavations in progress; (2) downwind of the screen-all unit where oversized debris is separated from material to be processed in the LTTA unit; (3) downwind of the contaminated soil feed hopper which holds soils prior to treatment; and (4) downwind of the contaminated soil stockpile while it is uncovered during the day for processing.

Asbestos Concerns

In its October 31, 1991 letter, NJDEPE states that "all friable and/or deteriorated ACMs shall either be properly encapsulated or removed in accordance with all applicable state, federal and local guidelines." In response to this requirement, Textron has asked ENVIRON to conduct an asbestos survey at the facility. This survey will include visual inspection of suspected asbestos containing materials (ACMs) and sampling of friable and damaged materials to confirm the presence and amount of ACMs that may require remediation. The results of this survey will be provided to NJDEPE in a subsequent progress report.

Textron is seeking the cooperation of NL Industries, Inc. (NL) in conducting the survey. However, by conducting the survey, Textron is not accepting responsibility for any ACMs that may be discovered at the facility and is reserving all rights it may have against any and all parties with respect to ACMs at the former Spencer Kellogg facility.

Notification Requirement

NJDEPE's October 31, 1991 letter stated that "Textron shall notify this Bureau at least 14 days prior to the initiation of any sampling and/or cleanup activity at the site." At the time Textron received the letter, cleanup activities and sampling activities had already been conducted at the site. Moreover, Textron did notify NJDEPE, both orally and in earlier progress reports, of the schedule for initiating cleanup and sampling activities, and has continually provided NJDEPE with detailed schedules of all remedial activities. Due to the need for day-to-day flexibility in cleanup implementation, however, it is not possible to provide 14 days notice prior to initiation of each remediation action or round of soil samples. These activities are expected to be conducted on a daily basis throughout the remainder of the cleanup. Therefore, Textron will continue to provide NJDEPE with updated schedules which outline proposed start and completion dates for all planned tasks.

6. Activities Scheduled for December 1991

Activities for December 1991 primarily will include: (1) completion of the LTTA trial runs; (2) commencement of full-scale soil processing, including approximately 1200 tons of soil from AECs 3, 4, 5 and 16; (3) completion of the excavation of AEC 3 and backfilling of

the excavation with clean fill material; (4) restoration of the railroad tracks in AEC 3, 4 and 5; (5) installation of an additional gravel trench in an apparent source location along the Building 31/32 loading dock; (6) completion of the installation of temporary piping adjacent to AEC 7; (7) excavation of AEC 16; (8) resumption of the AEC 12 resin excavation and off-site disposal; and (9) initiation of asbestos survey.

0288E:PAA01F80.W51

02-0288E
Progress Report

January 12, 1994

HAND DELIVERY

Mr. Mike Buriani
BEECRA Cleanup Oversight Section
New Jersey Department of
Environmental Protection and Energy
401 East State Street
Trenton, NJ 08625

Re: Textron Inc. - Former Spencer Kellogg Facility
Newark, Essex County, New Jersey
ECRA Case No. 85403

Dear Mr. Buriani:

Enclosed please find the progress report describing the activities associated with the implementation of the Cleanup Plan at the former Spencer Kellogg facility for October through December 1993.

Please contact us if you have any questions or need further information.

Sincerely,

Scott E. MacDonald
Manager

Scott R. Palmer
Senior Associate

CENTRAL FILE

SEM/JLM:jml
0288E:PAA04670.W51

Enclosures

cc: J. Schiavone
A. Kolesar

845030180

CLEANUP PLAN IMPLEMENTATION PROGRESS REPORT

Textron Inc. - Former Spencer Kellogg Facility
ECRA Case No. 85403

October through December 1993

1. Activities Performed This Reporting Period

The activities performed during this reporting period of October through December 1993 include (1) receipt and review of the New Jersey Department of Environmental Protection and Energy (NJDEPE) letter dated November 24, 1993 regarding post-remedial soil conditions at the site; (2) receipt and review of ground water monitoring results from quarterly sampling and the investigation of AEC 3; (3) monitoring of standpipes in AEC 3; and (4) implementation of initial actions to understand any potential source(s) of free-phase material observed in AEC 3 and the conditions underneath Building 31/32.

NJDEPE Letter Dated November 24, 1993

Textron and ENVIRON received and reviewed the NJDEPE's November 24, 1993 letter to Mr. Paul Duff. This letter provided NJDEPE's comments on Textron's June 28, 1993 Technical Response Document and a number of progress reports. As you know, ENVIRON has discussed a number of these comments with you and Mr. Steve Maybury, and submitted a letter to Mr. Maybury on December 22, 1993, requesting a meeting with the NJDEPE to review further potential requirements for the site as outlined in the NJDEPE's letter. Textron and ENVIRON believe that resolution of the issues raised in the NJDEPE's letter is critical to "closing the book" on the soils cleanup program and that these issues can be resolved most expeditiously in a meeting. A meeting has been scheduled for January 28, 1994 at 1:30 p.m. with representatives of ENVIRON, Textron, and the NJDEPE.

Ground Water Monitoring

As noted in the February 16, 1993 progress report, MW10, MW14, and MW28 (a new well downgradient of MW14) were installed on January 7 and 8, 1993 for quarterly ground water monitoring purposes.[1] At that time, MW11 and MW27 were also installed to investigate the presence of and potential impact to ground water from free-phase resinous material observed in AEC 3 during prior excavation activities. A drawing showing the locations of these monitoring wells was provided with the February 16, 1993 progress report.

The first three rounds of quarterly sampling were conducted on January 26, 1993, April 27, 1993, and August 4, 1993, and the analytical results from these sampling events were provided in previous progress reports to the NJDEPE. On October 18, 1993, the fourth round of ground water samples were collected from all five wells; these samples were analyzed for priority pollutant volatile organic compounds plus a 15 compound forward library search (VOC+15) and xylenes. The analytical results of this fourth round of sampling are tabulated and provided in Table 1, and are briefly discussed below. The analytical data package for this sampling is also attached to this progress report. Ground water elevations measured during the most recent sampling are provided in Table 2. For discussion purposes, the results from all four rounds of quarterly monitoring have been consolidated into Tables 3 and 4. General conclusions regarding the four rounds of sampling and recommendations for future actions are provided below.

- **Quarterly Ground Water Monitoring Results**

  As noted above, MW10, MW14, and MW28 were sampled for VOC+15 and xylenes as part of the post-cleanup monitoring program. The fourth round sample from MW10 contained 1,270 parts per billion (ppb) of toluene, further confirming the decreasing trend observed since the first round (26,400 ppb). The second and third round results for this constituent were 7,190 ppb and 9,000 ppb, respectively. Concentrations of ethylbenzene (129 ppb) and total xylenes (304 ppb) were also

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[1] As previously discussed with and approved by Ms. Helen Dudan (NJDEPE Case Geologist), MW15 and MW20 (formerly located laterally downgradient of MW10) were not reinstalled for quarterly monitoring purposes. This was formerly acknowledged in the NJDEPE's November 24, 1993 letter.

reported for the fourth round of sampling. These levels also are lower than those detected during earlier sampling rounds. Samples collected during the first round contained estimated concentrations of ethylbenzene and total xylenes at 230 and 695 ppb, respectively, samples from the second round contained estimated levels of ethylbenzene and total xylenes at 186 and 458 ppb, respectively; and samples from the third round contained estimated levels of 196 and 304 ppb, respectively. VOCs were not detected above the method detection limits (MDLs) in the sample from MW14. This result is consistent with those from previous quarterly sampling events. In the sample from MW28 (downgradient of MW14), no VOCs were detected above the MDL. Previously, m-xylene was detected in MW28 at concentrations of 358 ppb, 11.3 ppb, and 174 ppb during the first, second, and third rounds, respectively.

As indicated in Textron's October 1990 Cleanup Plan, and confirmed in the NJDEPE's February 8, 1991 conditional approval letter, quarterly monitoring would be conducted for a minimum of one year after the planned remedial actions for soils had been conducted. It was agreed with the NJDEPE that the need for additional monitoring, or any other action, would be determined after this period of monitoring. Based on a number of factors, Textron and ENVIRON do not believe that any further work is needed for ground water in this area of the site. First, source control actions in the vicinity of MW10 were fully implemented as documented in Canonie's July 1992 final cleanup report. Second, as discussed above and summarized in Table 3, a significant decrease in toluene concentrations, the primary VOC detected in shallow ground water in this area, has been observed over the course of the quarterly sampling program in MW10. Further, the results from MW14 and MW28, located downgradient from the source area monitored by MW10, indicated no significant levels of toluene or any other VOC. Textron and ENVIRON believe that these results confirm the successful execution of source control activities. Third, as part of the Phase II Sampling Plan, mathematical analyses were performed to evaluate the potential migration of VOC contamination in the shallow aquifer. The results, presented in ENVIRON's June 1988 report, indicate that the concentration of VOCs at the nearest receptor boundary (Newark Bay) would be insignificant and would pose no risk to public health or the

environment, even in the absence of any source control actions. Since source control actions have been implemented and a significant decrease in ground water contaminants noted, additional monitoring or ground water cleanup in this area of the site is considered unnecessary. Textron requests the NJDEPE's concurrence.

- **Investigation of AEC 3**

As indicated above, ground water samples were collected from MW11 and MW27, both located downgradient of AEC 3, and were analyzed for VOC+15 plus xylenes. Similar to the first three rounds of sampling, VOCs were not detected above the MDLs in the fourth round sample from MW11. The sample from MW27 contained 19,800 ppb toluene, 6,270 ppb ethylbenzene, 30,000 ppb total xylenes, and 807 ppb benzene. These results are consistent with those reported for the first three rounds of sampling, although the levels observed in the fourth round for each of these constituents were slightly lower than those reported for earlier rounds.

As noted in previous progress reports, Textron could not undertake certain actions related to determining the potential source(s) of the free-phase resinous material beneath Building 31/32, which may be creating the impact to ground water observed in MW27, due to a January 10, 1992 explosion and fire in Building 31/32. However, sufficient access to Building 31/32 was gained in November of 1993. As a result, Textron implemented several actions to understand any potential source(s) of the free-phase material observed in AEC 3 and the conditions underneath Building 31/32. These actions included: (1) holding discussions with plant personnel and review of available plant drawings to investigate possible sources and pathways for migration of any free-phase resinous material; (2) visual inspection of the first floor of the building; and (3) determining the feasibility of inspecting conditions underneath the building.

The meeting with current plant personnel to discuss historical operations and material handling in Building 31/32 was held on November 10, 1993. Based on our discussions and understanding of the plant operations, potential pathways for material to have migrated to the area beneath the building include: (1) breaches in the first floor (including the loading dock area) and/or current floor trench system; (2) poor seals around former floor drains on the first floor, and (3) breaks in the

sewer line beneath the building. However, ENVIRON has no information at this time that would serve to confirm the exact source responsible for the conditions observed in AEC 3.

With the assistance of Reichhold Chemicals personnel and GPX, ENVIRON conducted an inspection of the building and reviewed plant drawings to determine the feasibility of inspecting conditions underneath the building. GPX is a company with expertise in projects requiring the investigation of conditions beneath buildings and has successfully conducted such work at the former Spencer Kellogg facility in the past. Plan drawings of the first floor foundations, framing, and piling details were reviewed and the perimeter of the building and elevator shaft pit were examined to determine potential access points beneath the building. We were unable to identify any existing means of access to beneath the first floor of the building. The plan drawings reveal a complex network of pilings and interferences which may indicate limited void space beneath the first floor.

Although potential constraints imposed by the foundation structure and limited access appear to exist, the following approach will be implemented in an attempt to gain further information on the conditions beneath the building. First, a limited number of small diameter borings will be cut through the concrete flooring (including the loading dock) to examine the void space. If there is sufficient void space, a video survey will be performed with a mini-camera to observe conditions beneath the building that could represent a source of the material along the loading dock. This work is scheduled to be completed in January 1994. The results of this work, along with recommendations for any additional actions, will be provided in the next quarterly progress report.

Inspection of Standpipes in AEC 3

Since the last progress report of October 15, 1993, ENVIRON performed inspections of the standpipes in AEC 3 on October 18, 1993 and November 18, 1993. During both inspections, ENVIRON observed a thin, resinous skin-like film on the surface of the water in SP-2. The film was penetrated with a bailer, and grab samples of water did not contain non-aqueous phase liquids. No such film was observed in the other standpipes. These results are consistent with prior observations made over the past several months.

The NJDEPE indicated in its March 30, 1993 letter that it would be appropriate for Textron to modify the operating trench system (in AEC 3) to accommodate ground water recovery if the sampling results appear to warrant such an action. As discussed in previous correspondence, including the April 15, 1993 and July 15, 1993 progress reports and the June 28, 1993 letter, the gravel subsurface trenches in AEC 3 were installed to prevent further migration of any free-phase resinous material observed during excavation activities in this area. The associated vertical standpipes were installed solely to monitor the accumulation, or lack thereof, of this material over time. As previously noted, the trench/standpipe system was not designed, nor is it suitable, for ground water sampling or recovery purposes. If consideration of all relevant factors indicates the need for ground water remediation, an appropriate system would need to be designed. The NJDEPE acknowledged this position in its November 24, 1993 letter.

2. Data Produced During this Reporting Period

As noted above, the analytical results for ground water samples collected during October 1993 were received and are presented in Table 1, which is included with this progress report. The laboratory analytical data package for these results is also provided with this progress report.

3. Remedial Costs and Percentage of Total Remedial Activities to Date

As reported in the last progress report, with the soils remediation at the site completed, invoiced costs totaled $2,576,855. These costs include Canonie's activities related to obtaining permits, site mobilization, excavation and restoration in target AECs, off-site disposal of waste materials, processing of soils through the LTTA unit, site restoration, and demobilization.

4. Activities Scheduled for January through March 1993

Activities for January through March 1994 will include (1) participation in a meeting among representatives of the NJDEPE, Textron, and ENVIRON on January 28 to discuss a number of comments contained in the NJDEPE's November 24, 1993 letter; (2) preparation of any additional written response subsequent to the meeting; and (3) implementation of the video survey beneath Building 31/32.

TABLE 1
Ground Water Sampling Results
(Collected 10/18/93)
Textron Inc., Newark, New Jersey

	MW10-GW14	MW10-GW14D (Duplicate)	MW11-GW04	MW14-GW14	MW27-GW04	MW28-GW04	TB-101893	WB01-1018
Benzene	ND	ND	ND	ND	807	ND	ND	ND
Ethylbenzene	129	171	ND	ND	6,270	ND	ND	ND
Toluene	1,270	1,680	ND	ND	19,800	ND	ND	ND
m-Xylene	175	255	ND	ND	18,100	ND	ND	ND
o+p-Xylenes	129	181	ND	ND	11,900	ND	ND	ND
Chloride	1,480 ppm	1,640 ppm	501 ppm	142 ppm	431 ppm	501 ppm	--	--
Total Dissolved Solids	3,510 ppm	3,530 ppm	755 ppm	480 ppm	253 ppm	755 ppm	--	--

Notes:

All results are in parts per billion (ppb) except where noted.
ND = Compound not detected above method detection limit.

TABLE 2
Ground Water Elevations (feet above mean sea level)
10/18/93
Textron, Inc.
Newark, New Jersey

Monitoring Well	Elevation
1	2.05
3	3.05
4	3.41
5	3.25
6	3.98
8	3.24
9	3.84
10	3.9
11	4.15
14	3.85
17	4.29
18	3.46
19	2.6
21	1.92
22	No measurement[2]
23	1.98
25	3.94
26	2.41
27	3.73
28	3.64

Notes:

[1] Not able to obtain water level measurements from MW2 due to the presence of a black tar-like substance in this upgradient background well believed to be present from an off-site source.

[2] No measurement collected from MW22 for 10/18/93 only.

TABLE 3
Summary of the Quarterly
Ground Water Monitoring Results
Textron Inc., Newark, New Jersey

Collected January 1993	MW10-GW11		MW14-GW11	MW14-GW11D (Duplicate)	MW28-GW01
Benzene	ND		ND	ND	ND
Ethylbenzene	230.00 J		ND	ND	5.94 J
Methylene chloride	159.00 J		ND	ND	1.15
Toluene	26400.00		2.33 J	0.87 J	ND
m-Xylene	329.00 J		ND	ND	358
o+p-Xylenes	326.00 J		ND	ND	6.19 J
Collected 4/27/93	**MW10-GW02**		**MW14-GW12**		**MW28-GW02**
Benzene	ND		ND		ND
Ethylbenzene	186J		ND		ND
Methylene Chloride	98.6		ND		ND
Toluene	7,190		ND		ND
m-Xylene	231J		ND		11.3
o+p-Xylenes	227J		ND		ND
Chloride	1,790 ppm		1,190		1,280
Total Dissolved Solids	4,790 ppm		2,490		2,520
Collected 8/14/93	**MW10-GW13**	**MW10-GW13 (Duplicate)**	**MW14-GW13**		**MW28-GW03**
Benzene	ND	ND	ND		ND
Ethylbenzene	196J	164J	ND		ND
Toluene	9,000	8,930	ND		ND
m-Xylene	227J	129J	ND		174
o+p-Xylenes	216J	165J	ND		2.55 J
Chloride	1,910 ppm	1,940 ppm	181 ppm		862 ppm
Total Dissolved Solids	4,510 ppm	5,670 ppm	599 ppm		1,610 ppm

TABLE 3
Summary of the Quarterly
Ground Water Monitoring Results
Textron Inc., Newark, New Jersey

Collected 10/18/93	MW10-GW14	MW10-GW14D	MW14-GW14		MW28-GW04
Benzene	ND	ND	ND		ND
Ethylbenzene	129	171	ND		ND
Toluene	1,270	1,680	ND		ND
m-Xylene	175	255	ND		ND
o+p-Xylenes	129	181	ND		ND
Chloride	1,480 ppm	1,640 ppm	142 ppm		501 ppm
Total Dissolved Solids	3,510 ppm	3,530 ppm	480 ppm		755 ppm

Notes:

All results are in parts per billion (ppb) except where noted.
ND = Compound not detected above method detection limit.
J = Estimated value when mass spectral data indicate the presence of a compound below the method detection limit.

TABLE 4
Summary of the Ground Water Sampling Results
for the Investigation of AEC 3
Textron Inc., Newark, New Jersey

Collected January 1993	MW11-GW01		MW27-GW01
Benzene	ND		890.00
Ethylbenzene	ND		8770.00
Methylene chloride	2.39 J		176.00 J
Toluene	ND		35200.00
m-Xylene	ND		26800.00
o+p-Xylenes	ND		14400.00
Collected 4/27/93	**MW11-GW01**	**MW11-GW02 (Duplicate)**	**MW27-GW02**
Benzene	ND	ND	900
Ethylbenzene	ND	ND	7,170
Methylene Chloride	ND	ND	ND
Toluene	ND	ND	22,700
m-Xylene	ND	ND	18,000
o+p-Xylenes	ND	ND	12,300
Chloride	498	414	342
Total Dissolved Solids	1,220	1,270	11,120
Collected 8/04/93	**MW11-GW02**		**MW27-GW03**
Benzene	ND		950
Ethylbenzene	ND		7,440
Toluene	ND		24,400
m-Xylene	1.04J		21,800
o+p-Xylenes	ND		13,700
Chloride	1,740 ppm		396 ppm
Total Dissolved Solids	2,840 ppm		7,050 ppm

TABLE 4
Summary of the Ground Water Sampling Results
for the Investigation of AEC 3
Textron Inc., Newark, New Jersey

Collected 10/18/93	MW11-GW04		MW27-GW04
Benzene	ND		807
Ethylbenzene	ND		6,270
Toluene	ND		19,800
m-Xylene	ND		18,100
o+p-Xylenes	ND		11,900
Chloride	501 ppm		431 ppm
Total Dissolved Solids	755 ppm		253 ppm

Notes:

All results are in parts per billion (ppb) except where noted.
ND = Compound not detected above method detection limit.
J = Estimated value when mass spectral data indicate the presence of a compound below the method detection limit.

0288E:PAA04670.W51

TEXTRON

Textron Inc.

40 Westminster Street
Providence, RI 02903
401/421-2800

August 23, 1985

BY OVERNIGHT COURIER

Anthony J. McMahon, Chief
Bureau of Industrial Site Evaluation
Division of Waste Management
428 East State Street
Trenton, New Jersey 08608

RECEIVED
AUG 26 12 29 PM '85
DIVISION OF
WASTE MANAGEMENT
HSMA-RISE

Re: **Administrative Consent Order of Textron Inc.**
ECRA Case #85403

Dear Mr. McMahon:

In accordance with paragraph 10(A) of the above-captioned Order, enclosed for filing are an original and two copies of the Site Evaluation Submission section of the Initial Notice for the subject Industrial Establishment, required by N.J.A.C. 7:1-3.7.

Please contact Frederick K. Butler at the above-listed telephone number, if you require any additional information.

Sincerely,

Susannah Hillery Blood

Susannah Hillery Blood
Product Liability Specialist

SHB:dmp
Enclosures

cc: Frederick K. Butler, Esq. - Corporate
Dotz A. Darrah, Esq. - Skadden Arps
G. William Harrison - NL Spencer Kellogg
Joseph H. Highland, Ph.D. - Environ
Janet Smith, Esq. - NL Industries Inc.
Bill Weddendorf - NL Chemicals
(ALL WITH ENCLOSURES)

845030275

Form ECRA-2
6/88

NEW JERSEY DEPARTMENT OF ENVIRONMENT PROTECTION
DIVISION OF WASTE MANAGEM
HAZARDOUS SITE MITIGATION ADMINIS. ATION
BUREAU OF INDUSTRIAL SITE EVALUATION

ENVIRONMENTAL CLEANUP RESPONSIBILITY ACT (ECRA)

APPLICATION FOR ECRA REVIEW
INITIAL NOTICE

SITE EVALUATION SUBMISSION (SES)

This is the second part of a two-part application submittal and must be submitted within 30 days following public release of the decision to close operations or execution of an agreement of sale or option to purchase.

DATE August 23, 1985

NAME OF INDUSTRIAL ESTABLISHMENT Spencer Kellogg Newark Resin Plant

ADDRESS 400 Doremus Avenue

CITY OR TOWN Newark ZIP CODE 07105

MUNICIPALITY _____ COUNTY Essex

NAME OF PROPERTY OWNER NL Spencer Kellogg Inc., formerly owned by Spencer Kellogg Division of Textron Inc.

FIRM: NL Spencer Kellogg Inc.

DRESS: 1230 Avenue of the Americas

TY OR TOWN: New York ZIP CODE: 10020

MUNICIPALITY _____ COUNTY New York

SUBMIT THE ORIGINAL PLUS TWO COPIES OF THE FOLLOWING:
(NOTE: ITEM FOURTEEN (14) REQUIRES THREE COPIES)

9. A scaled site map identifying all areas where hazardous substances or wastes have been or currently are generated, manufactured, refined, transported, treated, stored, handled or disposed, above or below ground.
IS THIS MAP ENCLOSED? ☒ YES (See Appendix # 1) ☐ NO

10. A detailed description of the most recent operations and processes at the industrial establishment organized in the form of a narrative report designed to guide the Department step-by-step through a plant evaluation, with particular emphasis on areas of the process stream where hazardous substances and wastes are generated, manufactured, refined, transported, treated, stored, handled or disposed on site, above or below ground. Also identify any floor drains with their points of discharge, septic systems if applicable, seepage pits and dry wells. Please note that establishments which ceased production prior to December 31, 1983, but are subject to ECRA because of on-going storage beyond that date, must provide details on past operations.

IS THIS REPORT ENCLOSED? ☒ YES (See Appendix # 2) ☐ NO

IF YOU HAVE CHECKED "NO", STATE THE REASON(S): _____

Received
9/21/85

FOR DEP USE ONLY

Name No. _____

845030276

11. A. A description of the types, age (installation date), construction material, capacity, contents, and locations of storage vessels, surface impoundments, landfills, or other types of storage facilities, including drum storage, containing hazardous substances or wastes.

ARE THESE FACILITIES IDENTIFIED ON YOUR SITE MAP OR DESCRIBED IN A NARRATIVE REPORT?
☒ YES (See Appendix # 3) ☐ NO

IF YOU HAVE CHECKED "NO", STATE THE REASON(S): _____

B. The integrity of all underground tanks which contain hazardous wastes or substances must be verified. This may be accomplished in one of several ways: a) Performance of a satisfactory leak test in conformance with Criterion 329 of the National Fire Protection Association, or; b) Performance of subsurface soil investigation (soil borings and analysis), or; c) Excavate and remove the tank and establish the absence of contamination, or; d) other methods approved by the NJDEP.

ARE THE RESULTS OF THE LEAK DETECTION TEST OR THE SUBSURFACE INVESTIGATION ENCLOSED?
☐ YES (See Appendix # _____) ☒ NO

IF YOU HAVE CHECK "NO", STATE THE REASON(S): Subsurface soil investigation will be conducted according with the sampling plan in order to determine the integrity of all underground tanks.

12. A complete inventory of hazardous substances and wastes, including description and locations of all hazardous substances or wastes generated, manufactured, refined, transported, treated, stored, handled or disposed on site, above and below ground, and a description of the location, types and quantities of hazardous substances and wastes that will remain on site. (Attach additional sheets if necessary.) Review N.J.A.C. 7:1E, Appendix A and N.J.A.C. 7:26-8 prior to completing to ensure that all defined hazardous materials are included.

MATERIAL	QUANTITY	LOCATION	STORAGE METHOD	TO REMAIN ON SITE (Yes or No)
See Appendix 4				

845030277

13. A. A detailed description, date and location on a scaled map of any known spill or discharge of hazardous substances or wastes that occurred during the historical operation of the site and a detailed description of any remedial actions undertaken to handle any spill or discharge of hazardous substances or wastes. (Attach additional sheets if necessary.)

IS THIS INFORMATION ENCLOSED? ☒ YES (See Appendix # 5 ✓) ☐ NO

IF YOU HAVE CHECKED "NO", STATE THE REASON(S): _____

ARE THE SPILLS IDENTIFIED ABOVE INDICATED ON THE SCALED SITE MAP? ☒ YES ☐ NO

IF YOU HAVE CHECKED "NO", STATE THE REASON(S): _____

13 B. If this facility has an approved Spill Prevention Control and Countermeasure Plan (SPCC), enclose a copy with this submittal.

IS YOUR SPCC PLAN ENCLOSED? ☒ YES (See Appendix # 6* ✓)
☐ NO, this facility is not required to have an SPCC plan

14. A. A detailed sampling or other environmental evaluation measurement plan which includes proposed soil, groundwater, surface water, surface water sediment, and air sampling determined appropriate for the site. (This sampling plan must be developed in conformance with ECRA Regulations N.J.A.C. 7:1-5.14 et seq., and Quality Assurance Guidelines as developed by DEP)

ARE THREE COPIES OF THE SAMPLING PLAN ENCLOSED? ☒ YES (See Appendix # 7)
☐ NO

IF YOU HAVE CHECKED "NO", STATE THE REASON(S): _____

14. B. If the sampling plan includes groundwater sampling and/or the installation of monitoring wells, the applicant must complete a "Request for Hydrogeologic Assessment" form (blank form attached).

IS GROUNDWATER SAMPLING PROPOSED? ☒ YES ☐ NO

IS THE "REQUEST FOR HYDROGEOLOGIC ASSESSMENT" FORM ATTACHED? ☒ YES (See Appendix # 8)
☐ NO

* The plant's Hazardous Waste Contingency Plan is included as Appendix 9.

845030278

IF YOU HAVE CHECKED "NO", STATE THE REASON(S): _____

15. A detailed description of the procedures to be used to decontaminate and/or decommission equipment and buildings involved with the generation, manufacture, refining, transportation, treatment, storage, handling, or disposal of hazardous wastes or substances including the name and location of the transporter, the ultimate disposal facility, and any other organizations involved.

IS THE DETAILED DESCRIPTION ENCLOSED? ☐ YES (See Appendix # ____) ☒ NO

IF YOU HAVE CHECKED "NO", STATE THE REASON(S): New owner intends to use the facility in essentially the same manner.

16. Copies of all previous soil, groundwater and surface water sampling results, including effluent quality monitoring, conducted at the site of the industrial establishment during the history of ownership/operation by the owner or operator. Also include a detailed description of the location, collection, chain of custody, methodology, analyses, laboratory, quality assurance/quality control procedures, and other factors involved in preparation of the sampling results.

ARE HISTORICAL RESULTS ENCLOSED? ☐ YES (See Appendix # ____) ☒ NO

IF YOU HAVE CHECKED "NO", STATE THE REASON(S): No previous testing

17. List any other information you are submitting or which has been formally requested by this agency:

Appendix 9 - The facility's Hazardous Waste Contingency Plan.

(See following page)

I hereby certify that this application and any attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true. I am aware that false swearing is a crime in the State of New Jersey. I am cognizant that knowingly providing false information is a violation under ECRA and that "any officer or management official of an industrial establishment who knowingly directs or authorizes the violation of any provisions" of ECRA may be personally liable for penalties of up to $25,000 per day.

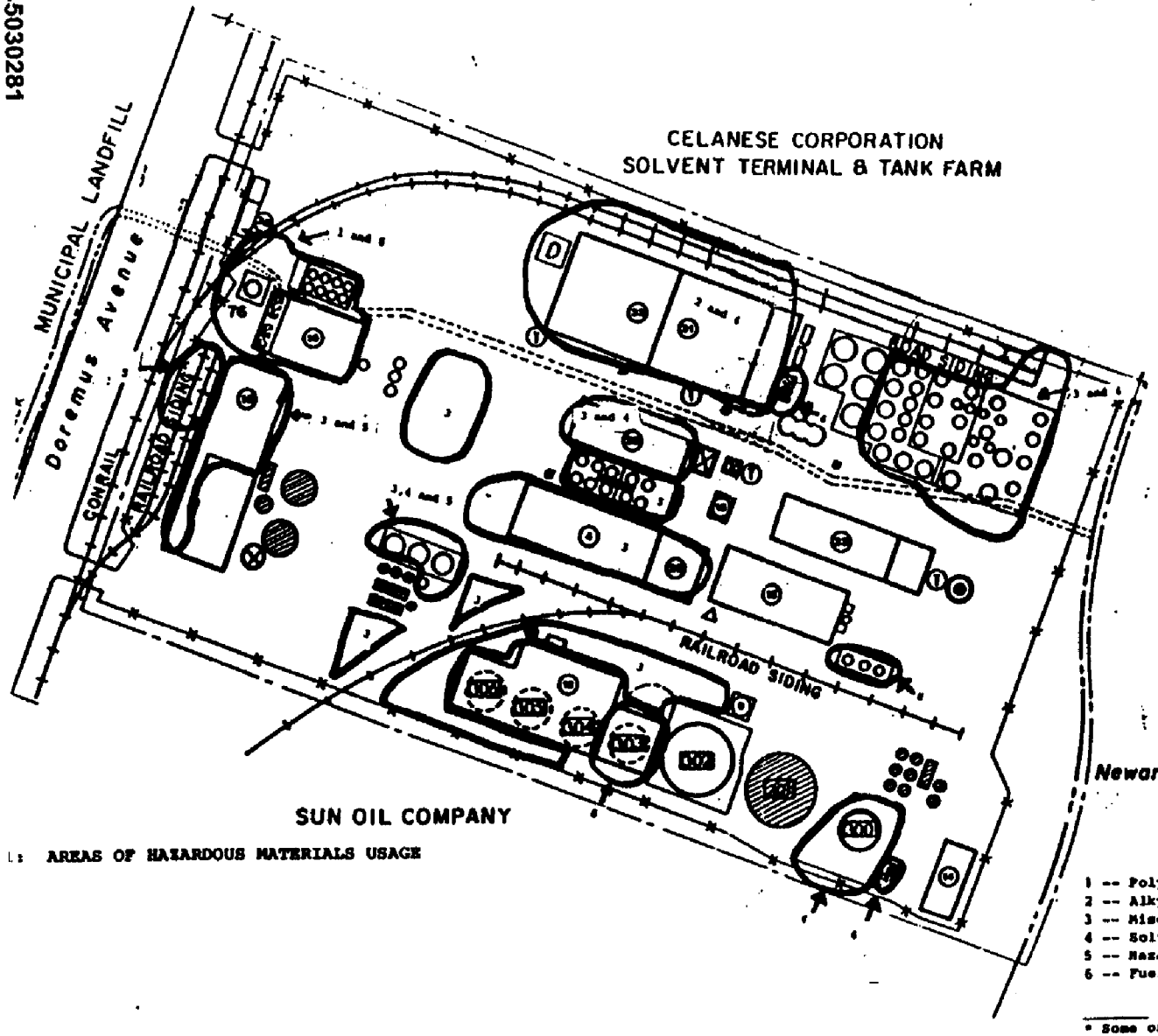
TEXTRON INC.

By: John L. Morse

John L. Morse, Vice President
Risk Management Insurance

August 23, 1985
Date

845030280



: AREAS OF HAZARDOUS MATERIALS USAGE

1 -- Polyester resin: raw material & finished product*
2 -- Alkyd coating resin: raw material & finished product*
3 -- Miscellaneous raw material & finished product*
4 -- Solvents
5 -- Hazardous waste
6 -- Fuel oil

* Some of the constituents of some of these materials considered hazardous.

IAP FOR IDENTIFICATION

PLANT PROCESS DESCRIPTION ECRA FORM II - #10

The Spencer Kellogg Newark, N.J. Plant is engaged in the manfacture of coating resins used primarily in the paint industry. Raw materials, consisting mainly of vegetable oils, polyols, dibasic acids and anhydrides and various solvents are received in both bulk and packaged quantities. The vegetable oils are received by either rail car or tank truck and are unloaded into storage tanks in the tank farm area east of Bldg. 31. Glycerine (a polyol) and phthalic anhydride are received in tank trucks and unloaded into storage tanks in the same area. Most dibasic acids and some other polyols are received in 50 lb bags by truck and are unloaded at the west end of Bldg. 32 for storage. In addition, trimethylol propane (a polyol) and vinyl toluene (a monomer) are unloaded from either rail cars or tank trucks into storage tanks located between buildings 4 and 25.

Hydrocarbon solvents and alcohols, used as solvents, are received in the plant in both tank truck and 55 gallon drums. Tank trucks are unloaded into storage tanks in the tank farm east of Bldg. 31. Drum quantities are unloaded and stored on pallets in the outside yard area east of Bldg. 25 or on the fifth floor of Bldg. 32.

These bulk raw materials are combined by pumping thru closed piping systems to meters and/or weigh tanks and are then charged to one of the resin reactors located on the fourth floor of Bldg. 31. Bagged raw materials are manually charged to the resin reactor from the 5th floor of Bldg. 31. This raw material charge is reacted at temperatures between 250°F and 600°F to form a resin product. During this reaction period some water of esterification is formed which is separated from solvents and other organics in a receiver tank. The water of esterification is then discharged to the Passaic Valley Sewerage Commission System.

The finished resin products are then partly diluted with various solvents in the resin reactors and transferred to a resin thin tank to which additional quantities of solvents are added in order to adjust products to specifications. These solvents are pumped directly to the thin tank through a solvent meter that determines quantity of solvent added to the thin tank. The thin tanks are located on the three lower floors of Bldg. 31. The products are then filtered using a paper dressed, plate and frame filter press, to drums on the second floor of Bldg. 31 or to stroage tanks located throughout the plant.

During the filtration a quantity of diatomaceous earth is added to the thin tank to aid in the filtration. When filtration is completed, the filter press is blown dry with nitrogen gas and the filter cake and press paper are removed from the press on the third floor of Bldg. 31 and 32. This press cake and paper are transferred to open head drums of hazardous waste. The drums are properly stencilled and closed. They are then transported via elevator and lift truck to the first floor of Bldg. 13 where they are held for disposal until a full truck load quantity is accumulated (approximately once per month). When a full truck load (80 drums) has been collected, the drums are opened, checked for liquids etc., closed, and labelled with hazardous waste labels and flammable solid labels. They are then shipped, properly manifested, to a Chemical Waste Management site at Emelle, Alabama for proper disposal. There are no hazardous wastes disposed of at the Newark site.

The products produced are loaded into drums in a drumming area on the second floor of Bldg. 31 or loaded into tank trucks from storage tanks at various locations throughout the plant. These locations for tank truck loading are (1) west end of Bldg. 4, (2) south side of Bldg. 31, (3) north side of Bldg. 25, and (4) south side of tank farm that is located east of Bldg. 31. On occasion, lines must be washed with solvents and this solvent is collected in drums and recycled back into our process.

Tank truck loading of products requires straining of product through a strainer bag of cotton and/or nylon. These bags are thoroughly drained and disposed of with filter press waste as hazardous waste. Bag drainings are recycled to the process or collected as 1285 premix which is then disposed of as bulk liquid hazardous waste, properly manifested to Solvents Recovery Service in Linden, N.J.

TANK INVENTORY-RAW MATERIALS-BETWEEN BLDGS. 4 & 25

NEWARK, NEW JERSEY-RESINS AND PLASTICS

DATE _____

TANK NO.	PRODUCT	CAPACITY	GPI	TEMP.	MATERIAL RECD. BY	TANK CONSTRUCTION
127	NOT IN USE	15000	49			316 SS
128	TRIMETHYCOL PROPANE	15000	49		T/C-T/W	316 SS
129	NOT IN USE	15000	49			304 SS
130	NEOPENTYL GLYCOL 30-367	15000	49		T/W	304 SS
131	PROPYLENE GLYCOL 30-016	15000	49		T/W	CARBON STEEL
132	STYRENE 30100	15000	49		T/W	PLASTIC LINED CARBON STEEL
133	VINYL TOLUENE 30104	15000	49		T/C-T/W	PLASTIC LINED CARBON STEEL
134	VINYL TOLUENE 30104	15000	49		T/C-T/W	PLASTIC LINED CARBON STEEL
135	NOT IN USE	15000	49			CARBON STEEL
136	NOT IN USE	15000	49			PLASTIC LINED CARBON STEEL
76	NOT IN USE	20700	96			ALUMINUM
105	NOT IN USE	10283	54			STEEL
106	NOT IN USE	10283	54			STEEL
107	NOT IN USE	10283				STEEL
	No.2 Fuel Oil-NOT IN USE		Underground adjacent to boiler room			UNKNOWN
	No.2 Fuel Oil-NOT IN USE		Located adjacent to building 16			UNKNOWN
	No.2 Fuel Oil-NOT IN USE		Located adjacent to building 16			UNKNOWN
79	NOT IN USE	3000			3rd floor Bldg. 31	STEEL
300	NOT IN USE	259000			Diked area of yard	STEEL
309	NOT IN USE	47000			Diked area of yard	STEEL

0-100 Drums containing hazardous waste stored between tanks 300 and 302.
Several portable tanks containing hazardous waste stored between tanks 300 and 302.

ALL TANKS ARE 10FT DIAM. X 26FT HIGH

INSTALLATION DATE-----1975

REVISED DATA - 5/29/85 AED

845030284

TANK FARM INVENTORY

TANK NO.	PRODUCT	CAPACITY	GPI	INSTALLED	MATERIAL RECD. BY	TANK CONSTRUCTION
1	PAMAK 4A	50,000	195	1948	T/C-T/W	347 CLAD SS
2	Superior Linseed Oil	50,000	195	1948	T/C-T/W	347 CLAD SS
3	Unfiltered #1 Castor Oil	50,000	195	1948	T/W	347 CLAD SS
4	#1 FILTERED CASTOR	50,000	195	1948	T/W	CARBON STEEL
5	Unfiltered Extra Pale Castor Oil	50,000	195	1948	T/W	CARBON STEEL
6	Glycerine	20,000	96	1948	T/W	304 SS
7	SUNFLOWER FATTY ACID	13,000	54	1948	T/C-T/W	304 SS
8	O/R SOYBEAN	20,000	96	1948	T/C-T/W	CARBON STEEL
9	FUEL OIL	20,000	96	1948	T/W	CARBON STEEL
10	150 SOLVENT	20,000	96	1948	T/W	CARBON STEEL
11	XYLOL	20,000	96	1948	T/W	CARBON STEEL
12	EXEMPT. N.S.	20,000	96	1948	T/W	CARBON STEEL
13	O/R SOYBEAN	20,000	96	1948	T/W	CARBON STEEL
14	O/R SOYBEAN	20,000	96	1948	T/C-T/W	CARBON STEEL
15	KELLIN T-33	20,000	96	1948	T/C	CARBON STEEL
16	EXEMPT V.M.P.	20,000	96	1948	T/W	CARBON STEEL
17	UNFLT EXTRA PALE C/O	20,000	96	1948	T/W	CARBON STEEL
18	XYLOL	20,000	96	1948	T/W	CARBON STEEL
19	EXEMPT N.S.	20,000	96	1948	T/W	CARBON STEEL
20	RC 3551	20,000	96	1948	PLANT PRODUCT	CARBON STEEL
21	Pamolyn 200	13,000	54	1948	T/C-T/W	304 SS
22	NOT IN USE	13,000	54	1948	T/W	304 SS
23	O.M.S.	13,000	54	1948	T/W	CARBON STEEL
24	TOLUOL	13,000	54	1948	T/W	CARBON STEEL
25	Rec. Methanol	13,000	54	1948	FROM PLANT	CARBON STEEL
26	P5555-MO-45	13,000	54	1948	PLANT PRODUCT	CARBON STEEL
27	1241-M-60HV	13,000	54	1948	PLANT PRODUCT	CARBON STEEL
28	NOT IN USE	13,000	54	1948		CARBON STEEL
29	NOT IN USE	13,000	54	1948		CARBON STEEL
30	Ethyal Benzene	13,000	54	1948	T/W	CARBON STEEL
31	PHTHALIC ANHYDRIDE	29,500	273.54	1978	T/W	304 SS
32	NOT IN USE	13,000	54	1948	-	CARBON STEEL
33	NOT IN USE	13,000	54	1948		CARBON STEEL
111	BUTYL CELLOSOLVE	15,288	49		T/W	CARBON STEEL
112	Synethol Acids Recovered	14,218	59		PLANT BY-PRODUCT	ALUMINUM
113	SEC BUTYL ALCOHOL	5,900	49	1965	T/W	CARBON STEEL
114	Sec. Butanol	5,900	49	1965	T/W	CARBON STEEL
115	Ethanol	5,900	49	1965	T/W	CARBON STEEL
116	ETHANOL	5,900	49	1965	T/W	CARBON STEEL

REVISED DATA 9/29/85 AED

845030285

5/28/85

SPENCER KELLOGG - TEXTRON - NEWARK, NJ

HAZARDOUS MATERIALS STORAGE

MATERIAL	QUANTITY	LOCATION	STORAGE METHOD
Adipic Acid	4330 lbs	Bldg.32-5th Fl.	Bags
Ammonium Hydroxide	16,700 lbs	Bldg.32-1st Fl.	Drums
Benzoic Acid	12,694 lbs	Bldg.32-5th Fl.	Bags
Butyl Acetate	-	Bldg.32-4th Fl.	Drum
Formaloehyde (37%)	1370 lbs	Bldg.31-1st Fl.	Drum
Ethyl Benzene	25,523 lbs	Tank #30	Bulk
Maleic Anhyoride	27,600 lbs	Bldg.32-5th Fl.	Bags
Methyl Methacrylate	670 lbs	Bldg.32-5th Fl.	Drum
Mineral Spirits	60,377 lbs	Tanks #12 & 19	Bulk
Phospheric Acid (85%)	286 lbs	Bldg.31-4th Fl.	Drum
Sodium Hydroxide (Caustic)	~4,000 lbs	Bldg.32-5th Fl.	Drum
Sulfuric Acid	124 lbs	Bldg.31-4th Fl.	Drum
Toluene	34,139 lbs	Tank #24	Bulk
VM & P	86,279 lbs	Tank #16	Bulk
Xylene	63,707 lbs	Tanks #11 & 18	Bulk
Vinyl Toluene	62,584 lbs	Tanks #133 & 134	Bulk
#6 Fuel Oil	70,000 Gallons	Tanks #303 & 320	Bulk
Odorless Mineral Spirits	37,813 lbs	Tank #23	Bulk
Solvent 150	30,080 lbs	Tank #10	Bulk

0-100 Drums containing hazardous waste stored between tanks 300 and 302.

Several portable tanks containing hazardous waste stored between tanks 300 and 302.

All materials to remain on site because the business is being continued by the purchaser.

845030286

Spencer Kellogg

ECRA Case #85403

Appendix 5

Description of Spill or Discharge

During the operation of the facility, the following spills or discharges are known to have occurred. Each area will be assessed during the sampling program either directly or indirectly.

1. On or about August 19, 1976, the sanitary sewer line ruptured. The material in the sewer line apparently drained into the underground flume and was discharged into Newark Bay. Approximately 20,000 pounds of caustic wash had been discharged into the sanitary sewer atounr this time, but the amount of material that actually leaked from the samitary sewer is unknown since the pipes are underground. At the time of the incident, the Coast Guard, USEPA, Passaic Valley Sewage Commission and Ashland Chemicals (through the Emergency Reporting System) were notified. An attempt was also made to notify NJDEP. No citations were issued, and a new sewer pipe was installed and approved by the City of Newark.

2. On June 29, 1977, an estimated 5 gallons or less of Pamak (96% vegetable oil and 4% resin) leaked onto the ground when a Pamak pump developed a leak in the mechanical seal. That night the condensate

jammed and water overflowed onto the ground. The water flowed through the spilled Pamak carrying it onto Celanese's property and into Newark Bay. The Coast Guard was present when the run-off was discovered. The National Response Center, NJDEP, USEPA, Passaic Valley Sewage Commission and Ashland Chemical were notified immediately. Ashland Chemical was fined $150 for the discharge. In the initial cleanup, an absorbent material was used and in the final cleanup about one foot of dirt was removed and replaced with new fill.

3. On July 12, 1978, about 75 gallons of a resin was spilled when the packing on the pump failed. Approximately 5 to 10 gallons of the resin reached Newark Bay. The resin, comprised mostly of 27 parts of Soya Oil and three parts of modifier, is nontoxic. The Coast Guard, NJDEP and Ashland Chemical were notified immediately. No fine was levied by the Coast Guard. The spill was cleaned up immediately using containment booms and vacuum trucks.

4. On September 10, 1979, an unknown amount of resin spilled from an overflowing tank into the yard where it flowed toward the yard drain. Some of it entered the underground flume and was discharged into Newark Bay. When the facility operators discovered the discharge, they notified the Coast Guard, the Passaic Valley Sewage Commission and Spencer Kellogg. The yard drain was then plugged with rags to prevent

further entry and the spill in the yard was cleaned up and covered with Speedi Dri. The Coast Guard fined Spencer Kellogg $50 for the discharge. A spill contractor was hired to do further cleanup.

5. Since the mid-1950s when the facility first began to use liquid phthalic anhydride, a few spills have occurred in the unloading area due to leaks in the pump seals and gaskets. In each instance, the phthalic anhydride which rapidly crystalizes at room temperature was broken up with jack hammers and pick-axes and removed. In some instances the area was then covered with gravel or stone.

Presentation of the April-May 1995
Ground Water Sampling Program Results
and
Proposed Remedial Action Work Plan
for the Former Spencer Kellogg Inc. Facility
in Newark, New Jersey

ISRA Case No. 85403

Prepared for

Textron Inc.
Providence, Rhode Island

Prepared by

ENVIRON Corporation
Princeton, New Jersey

July 1995

845030300

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I. INTRODUCTION

A. Purpose and Scope

Extensive soil sampling has been conducted at the former Spencer Kellogg facility (the "Site") in Newark, New Jersey in response to the requirements of the Environmental Cleanup Responsibility Act (ECRA), now known as the Industrial Site Recovery Act (ISRA). That sampling identified soil contamination requiring remedial action in various portions of the facility, primarily due to levels of toluene, ethylbenzene, xylenes and base/neutral compounds above applicable cleanup standards. Soil remediation was conducted between 1991 and 1992 and included excavation of soils adjacent to the loading dock along the northern side of Building 31/32. During that excavation, free-phase resinous material was observed entering portions of the excavation adjacent to the loading dock of the building. The resinous material was contained and removed and did not reaccumulate during the remainder of the cleanup program. To determine the potential source of this material, ENVIRON Corporation (ENVIRON) implemented various investigatory measures in and around Building 31/32. During these sampling activities, ENVIRON identified ground water contamination south of the building and free-phase product beneath the building. A detailed discussion of these historical soil and ground water sampling activities near Building 31/32, and other investigations related to the building, is provided below.

Based on the presence of free product and dissolved ground water contamination beneath and around Building 31/32, ENVIRON has prepared this Remedial Action Work Plan (RAWP, or the "Plan") to address these conditions. The Plan presents the results of the most recent ground water characterization, conducted in April and May 1995, and discusses these data in relation to the results from prior ground water sampling near the building. This sampling defined the extent of the free product, delineated the eastern boundary of the dissolved-phase plume and confirmed the pattern of alternating

high and low benzene, toluene, ethylbenzene, and xylene (BTEX) concentrations south of the building. Section II discusses the methodologies used to locate the sampling points, collect the ground water samples and delineate the free product. Hydrogeological findings and analytical results are provided in Sections III and IV. Section V presents the cleanup goals and alternatives that are considered appropriate to address the free product and dissolved VOC levels in ground water and identifies the preferred remedial alternatives. A preliminary schedule and cost estimate for implementation of those alternatives is given in Section VI.

B. History of Building 31/32 and Related Environmental Investigations

Information regarding historical operations in Building 31/32 was obtained from former Textron personnel, as previously indicated in Textron's January 19, 1994 progress report to the New Jersey Department of Environmental Protection (NJDEP). Building 31/32 is located near the northern Site boundary and was constructed in 1948. Specifically, Building 31 was constructed to house the main polyester resin manufacturing operations. Building 32, connected to the western wall of Building 31, was constructed primarily for drum storage, warehousing and shipping purposes, although manufacturing operations also occurred on the upper floors of this building. Dry raw materials for resin manufacturing and some liquid raw materials in drums are received on the first floor of Building 32. These materials are subsequently moved to the fifth floor using an elevator and are then transferred to Building 31 for the resin manufacturing process. Bulk liquid raw materials are delivered to storage tanks on the upper floors of Building 31 via railcars, tankers, or from the aboveground tanks located east of the building. Process materials flow via gravity to the reactors, blenders and mixers, as well as the storage tanks, on the fourth floor of both buildings. The third floor of Building 31 contains the bottoms of the reactor vessels and the filtration process equipment for the resin products. Filtered products are then transferred to the second floors of both buildings, which house the thinning and drumming operations. Thinning tanks are also located on the first floor of Building 31.

The resin manufacturing reaction produces water in a reversible reaction, so water must be removed before the reaction is complete. To accomplish this, a reflux solvent

(xylenes or ethylbenzene) is added to create an azeotrope, enabling the evaporation of the water at temperatures below its boiling point. Historically, process wastewater from these reactions was discharged via below-floor piping to the former combined industrial and sanitary sewer system[1]. That system was directly connected to the Passaic Valley Sewerage Commission (PVSC). In the early 1980s, PVSC began to require dischargers to monitor for lower explosive limits (LELs). Accordingly, process wastewater was subsequently piped to a collection tank on the first floor for monitoring prior to discharge to the PVSC. Any residual solvent was decanted for on-site recycling and the remaining wastewater discharged to the combined sewer system. In 1989, a steam stripper was installed on the first floor for wastewater treatment in response to the Organic Chemical, Plastics and Synthetic Fibers regulations of 40 CFR 114.

In addition to the wastewater piping, each floor of both buildings also had floor drains. Prior to 1985, these floor drains were piped through all of the floors and connected to a single line that discharged directly to the PVSC sewer system. In 1985, all of the floor drains were reconnected to the collection tank on the first floor of the building to enable recovery of residual solvent prior to wastewater discharge. A sealed interior trench system was also installed at that time to contain any drainage or spills of process wastes and/or other materials within the building. The trench system directs those discharges to the collection tank for recovery prior to appropriate disposal. This trench system is shown on the plan view of Building 31 provided as Plate 1. In the late 1980s, the floor drains were sealed. The sewer lines were then decommissioned and have been inactive since that time.

Based on the information regarding the historical manufacturing processes in Building 31/32, operations involving the use of solvents or generation and discharge of process wastewaters did not occur on the first floor of Building 32. Therefore, solvents would not have been discharged as part of standard operations to the floor drain system. Accordingly, operations in Building 32 are not considered a potential source for the free

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[1] Based on engineering diagrams of the building and sewer system, the sewer lines are located beneath the depths of structural beams installed between column footings. Thus, these sewer lines are near the seasonal high water table, and may be temporarily beneath the water table during periods of high tide.

product and dissolved-phase ground water contamination identified beneath and around Building 31.

The soil remediation conducted during 1991 and 1992 by Textron's contractor, Canonie, included excavation of soils north of the building and removal of VOCs from those soils using a low-temperature thermal aeration technology. Following excavation of soils adjacent to the building in November 1991, and a subsequent heavy rainstorm, a thin layer of a free-phase resinous material was observed on the water surface in the excavation. This material appeared to have seeped from areas adjacent to the loading dock and was similar in appearance to resinous material present on the ground surface adjacent to the loading dock. The accumulated material was removed and the excavation backfilled, with gravel used as the backfill in those portions of the excavation where the resinous material had been observed. Three gravel trenches were created during backfilling solely to prevent the further migration of any free-phase resinous material. Four vertical, perforated PVC standpipes were installed within the gravel trenches to monitor the accumulation, or lack thereof, of this material over time. The locations of these gravel trenches and vertical standpipes are shown on Plate 1.

Textron monitored these standpipes on a monthly basis beginning in October 1992. This monitoring was intended to document the presence of any material that had reaccumulated. In its March 30, 1993 letter to Textron, the NJDEP approved Textron's proposal for continued monthly monitoring of the standpipes and removal of any resinous material that had reaccumulated.

Of the 13 monitoring episodes between October 1992 and October 1993, the resinous material was not observed on four occasions. Resinous material, in the form of a skin-like layer on the water surface, was encountered at standpipe SP-2 during the remaining nine monitoring events. Notably, the resinous material was observed during only one event each at SP-1, SP-3 and SP-4, most recently in December 1992. Based on the absence of significant reaccumulation of the resinous material, monthly monitoring was terminated in October 1993.

The absence of reaccumulation of the resinous material at SP-1, SP-3 and SP-4, and the lack of a consistent and appreciable layer of the resinous material at SP-2, indicates that there is no significant ongoing source of the free-phase resinous material observed

in this area. Further, these monitoring observations indicate that this material is not present to such a degree that recovery is feasible or warranted.

To investigate the potential impact to ground water from the free-phase resinous material, Textron reinstalled monitoring well MW11 (abandoned during the 1991-1992 soil cleanup program) and installed MW27 in January 1993. Samples were collected from these wells on a quarterly basis in January, April, August and October 1993 for VOC+15 analysis, including xylenes. Results from these sampling rounds were discussed in progress reports previously submitted to the NJDEP. As indicated in these reports, VOCs were not above method detection limits at MW11 during these four sampling rounds. BTEX constituents were identified at MW27 in each sampling round at total concentrations between 56.9 and 86.1 parts per million (ppm). These levels are substantially higher than those recently detected at MW27, as discussed below. It is also significant to note that no free-phase resinous material has been observed at these wells at any time.

To further investigate potential sources of the free-phase resinous material, ENVIRON and Textron used the information described above regarding historical operations in Building 31 and engineering diagrams of the building. Based on this information, three potential pathways were identified: (1) breaches in the first floor (including the loading dock area) and/or the current floor trench system; (2) poor seals around floor drains on the first floor; and (3) breaks in the sewer line beneath the building. Regarding the first two potential pathways, ENVIRON has not observed any cracks on the first floor of Building 31 during site visits. Further, although standing water in the trench system during these site visits prevented a complete inspection of the system integrity, the presence of standing water suggests that the system is intact. Finally, former Textron personnel reported that the sewer system beneath Building 31 required repair on two occasions (prior to 1967 and in the late 1970s) in response to the backing up of floor drains, suggesting that there may have been leaks in the sewer system.

Based on the above information, Textron cored the concrete floor at six locations in January 1994 to determine whether void spaces were present beneath the floor slab. These potential void spaces would be inspected for evidence of resinous material that

could act as a source of the resinous material observed in the excavation immediately north of the building. Three specific areas were investigated: (1) the loading dock adjacent to which the resinous material had been observed; (2) inside Building 31 along the floor drain\sewer system which runs under the floor slab along the center of the building; and (3) inside the building adjacent and upgradient of monitoring well MW27. Results of this investigation were provided to the NJDEP in a May 27, 1994 progress report and are briefly summarized below.

This inspection revealed that there was limited void space beneath the floor slab (i.e., between 2 and 5 inches.) The observations also indicated that compacted fill was placed around the pile boxes and structural foundation system of the building to enable direct pouring of the concrete floor on the fill surface when the building was constructed. As such, the observed void spaces represent the amount of settling over the past 50 years. There was no evidence at these locations of any material similar to that observed in AEC 3 excavation. Because this investigation did not identify a source area beneath the building, sampling was proposed in the May 27, 1994 letter to the NJDEP to delineate levels of dissolved BTEX constituents. This sampling plan was approved in the NJDEP's August 30, 1994 letter to Textron.

The sampling program was implemented in November 1994 and included three Hydro-punch sampling points inside the building and six sampling points south of the building. As proposed, ground water samples were collected from each of these sampling points and analyzed for BTEX. Confirmatory ground water samples were also obtained from MWs 11 and 27. Finally, ground water samples were collected from standpipes SP-1, SP-3 and SP-4 to provide information regarding ground water quality north of the building. This sampling program identified a free-phase nonaqueous product layer on the water table at one interior Hydro-punch sampling location, HP05. Ground water sampling results (1) confirmed prior sampling of MWs 11 and 27, (2) identified relatively similar BTEX levels at the three sampled standpipes, and (3) identified an inconsistent pattern of BTEX concentrations south of the building. Results of this sampling program were provided to the NJDEP in a January 17, 1995 letter report.

Analytical results from the vertical standpipes support prior observations that indicate a separate source area for the contamination detected north of the building along the loading dock. First, the degree of similarity of BTEX levels at these locations suggests that these levels are due to former activities along the loading dock and represent residual concentrations following the 1991-1992 soil cleanup program in AEC 3. Further, as described above, resinous material observed on the water in the excavation in AEC 3 during the cleanup program in that area was similar in nature to resinous material observed on the ground surface adjacent to the loading dock at that time. Consequently, ENVIRON believes that surface discharges of resinous material at the loading dock are the most likely source for the resinous material encountered in the excavation. Because the free-phase product detected beneath Building 31 is not resinous in nature, it appears to be clearly unrelated to the material previously observed during remedial activities in AEC 3.

Textron believes that it has conducted all practicable investigations to determine whether additional resinous material is present in the subsurface and to identify a source for the observed resinous material. These investigations included the subfloor coring program described above, the recent two-phase Hydro-punch sampling program, and the monthly monitoring of the vertical standpipes. The interior sampling locations were targeted to locations where resinous material, if present, would most likely be observed, including along the loading dock and adjacent to former combined sewer lines. The absence of resinous material at these locations indicates that the resinous material likely did not originate from an interior source. Based on the current configuration and operations of Building 31, additional interior investigations and sampling locations are not feasible. Textron believes that the results of these studies confirm that the resinous material first observed along the loading dock (1) has not reaccumulated; (2) is not present beneath the building floor; (3) likely resulted from surface discharges; and (4) is not related to the free product observed beneath the building. Accordingly, no further investigations are necessary with respect to the resinous material, other than the ground water monitoring proposed below.

In the January 17 letter report, Textron also proposed a second phase of delineation sampling using Hydro-punch sampling points and additional monitoring wells. Ground

water sampling was proposed to delineate levels of dissolved BTEX constituents beneath and downgradient of the building. Interior Hydro-punch sampling was also proposed to further investigate the presence and extent of the free-phase product previously identified. The NJDEP approved this sampling proposal in its February 22, 1995 letter to Textron.

ENVIRON implemented the most recent sampling plan in April and May 1995, installing two monitoring wells (MWs 29 and 30) and completing 12 Hydro-punch sampling points, six inside Building 31 to delineate the area of free product and six outside the building to define areas of dissolved phase BTEX contamination. Free product was observed at five of the interior Hydro-punch locations, generally at thicknesses less than one inch. This phase of interior sampling defined the extent of the free product. Ground water samples were collected for BTEX analysis from the six exterior Hydro-punch sampling points and from MWs 27, 29 and 30. These results defined the eastern boundary of the BTEX plume and confirmed the inconsistent pattern of BTEX concentrations south of the building.

II. METHODOLOGIES

A. Hydro-Punch Locations and Sampling

In its January 17, 1995 sampling plan, Textron proposed to install approximately 12 additional Hydro-punch sampling points in and around Building 31, with additional locations to be completed as necessary based on observations of free product and field screening results during implementation of the sampling program. Plate 1 shows the locations of the completed Hydro-punch sampling points. Access constraints and building structural members (e.g., column footings and beams, overhead steam lines, interior drum handling system and industrial sewer lines) prevented installation of proposed locations HP18 and HP19. The remaining Hydro-punch sampling points were completed near the proposed locations.

Each interior Hydro-punch sampling point was completed in a similar manner. After the concrete floor was cored, two 3-inch-diameter split spoons were driven with a tripod-mounted rig to remove the majority of soils above the water table, located approximately 6 feet below the floor. The tripod rig was then used to drive the Hydro-punch sampling device approximately 2 feet below the water table, intercepting the soil-water interface, enabling an accurate determination of the presence of free product. A ground water sample was collected from each Hydro-punch location using a Teflon bailer and inspected for evidence of free product. Where free product was observed, the thickness of the product layer in the bailer was measured. This measurement was confirmed by using an oil/water interface probe in the screened interval. This oil/water interface probe was also used to confirm the absence of free product at locations where no product layer was observed in the bailer. Because most of the interior locations contained free product, ground water samples were not collected for BTEX analysis from those locations.

Ground water samples from exterior Hydro-punch locations were first screened with an HNu photo-ionization detector to evaluate potential BTEX levels. Elevated responses at certain locations indicated that the sampling point was not near the plume boundary. Accordingly, these locations (e.g., HP20) were sealed and moved further from the suspected plume source area and reinstalled. Ground water samples were collected from all completed exterior Hydro-punch locations and analyzed for BTEX using Method 8240. Following collection of ground water samples, the Hydro-punch locations were sealed with a cement-bentonite grout.

B. Monitoring Well Locations and Construction

Monitoring wells MW29 and MW30 were installed on April 11, 1995 by Advanced Drilling, Inc. at the locations ENVIRON proposed in its January 17 sampling plan, as shown on Plate 1. These locations were selected to be at the eastern and western edges of the ground water plume south of the building, as defined by the initial 1994 Hydro-punch sampling program. Both wells were drilled with hollow-stem augers to a depth of 8 feet below grade, the approximate surface of a peat and silty clay layer (i.e., meadow mat) underlying the site, and were constructed with 5 feet of Schedule 40 PVC 0.020" slot screen and Schedule 40 PVC riser. The annular space around the screened interval and approximately 1 foot above that interval was packed with #2 well sand. The remaining annular space was sealed with 6 inches of granular bentonite and a bentonite-cement grout. The wells are protected by locking flushmount casings. Construction logs for these wells are provided in Appendix A. The wells were developed on April 20 for at least one hour using a peristaltic pump and a bailer. The water clarity at MW30 improved markedly during development, being almost sediment-free after one hour. Ground water at MW29 contained a minor amount of sediment after development.

C. Collection and Analysis of Ground Water Samples

Ground water samples were collected by ENVIRON from MWs 27, 29 and 30 on May 8, 1995 using current NJDEP-recommended procedures. MW11 was not sampled because results from the November 1994 and prior sampling programs confirm that detectable BTEX levels are not present at this well. Depths to water and well bottom

were measured at each of the wells being sampled, and the volume of standing water was calculated. More than three well volumes were removed using a peristaltic pump. During this purging, ENVIRON recorded pH, temperature, and specific conductance readings at a rate of at least once per well volume. Purging continued until these parameters had essentially stabilized. ENVIRON withdrew a ground water sample using a Teflon bailer after the water level had returned to near static conditions. In all cases, this recovery occurred within 30 minutes after purging was completed. All of these ground water samples were analyzed for BTEX using Method 8240.

D. Quality Assurance/Quality Control Samples

One duplicate ground water sample was collected during each portion of the sampling program (from locations HP20 and MW29) to assess the reproducibility of the laboratory analyses. One equipment wash blank was also collected during the Hydro-punch sampling to monitor the completeness of decontamination procedures. This wash blank was collected by pouring laboratory-prepared deionized water through the sample bailer between completion of the interior free-product delineation and collection of the ground water sample from HP20. ENVIRON also collected one trip blank and one equipment blank during the ground water sampling program. All blanks were analyzed for BTEX.

III. HYDROGEOLOGY

A. Site Geology

Information regarding site geology was obtained during prior sampling programs and confirmed with observations made during the installation of MWs 29 and 30 and the Hydro-punch sampling points. This information indicates that the upper 4 to 6 feet of material in the vicinity of Building 31 consists of a coarse fill unit composed primarily of cinders, ash and silty sand. The unsaturated zone beneath the building is the same material, overlain by approximately 3 feet of a dense silty sand that was emplaced during construction of the building. This fill unit extends below the water table to the surface of a meadow mat, a peat-like layer with a significant fraction of grassy vegetative matter. The wells are constructed with the screened interval extending to the top of the meadow mat. The meadow mat is underlain by a regionally extensive clay and silt layer that separates the surficial saturated zone from the underlying aquifer.

B. Ground Water Flow

Ground water elevations were obtained on April 12, 1995 in standpipes SP-1, SP-3 and SP-4, monitoring wells MWs 27, 29 and 30, and Hydro-punch locations HP16 and HP17. Ground water elevations were also obtained at the above standpipes and monitoring wells on May 11. These elevations are provided on Table 1. Ground water elevations obtained from HP16 and HP17 may not be accurate because it was not feasible to allow water levels to stabilize prior to measurement. The measured ground water elevation at HP17 is higher than elevations north and south of the building, suggesting that this measurement is not representative of site conditions, but may be elevated due to measurement of the water level shortly after Hydro-punch sampling. The ground water elevation at HP16 is consistent with the understanding of the Site's ground water flow regime.

TABLE 1
Ground Water Elevations in and around Building 31
Former Spencer Kellogg Site, Newark, New Jersey

Measurement Location	April 12, 1995 Elevation	May 11, 1995 Elevation
MW27	3.41	3.59
MW29	2.35	2.78
MW30	2.93	3.57
SP-1	4.53	4.57
SP-3	4.68	4.73
SP-4	4.52	4.57
HP16	3.78	NA
HP17	5.09	NA

The elevations in the standpipes, virtually the same for each measurement event, are approximately 0.8 to 1.0 feet higher than those at the monitoring wells south of the building. Thus, these elevations confirm that the ground water flow direction is to the south toward the flume, consistent with prior ground water flow determinations at the Site.

The ground water flow regime in this portion of the Site is governed by an underground flume. Plum Creek originates west of the Site and receives drainage from a landfill before draining into an underground flume that flows beneath Doremus Avenue and the Site. The flume discharges from a pipe in the breakwall directly into Newark Bay. Based on historical Site diagrams and on information provided by former Site personnel, the majority of the flume at the Site is a box culvert of wooden construction. The portion located approximately between the western edge of the silos and Newark Bay consists of a 36-inch diameter concrete pipe added by the Army Corps of Engineers in 1943, when the bayshore was extended. There is no access to the flume on the Site. The flume intercepts the water table and is approximately 3 feet high and 3 feet wide. Given its wooden construction, the flume enables significant ground water infiltration. Based on tidal studies previously conducted by ENVIRON and presented to the NJDEP, ground water elevations in monitoring wells near the flume vary appreciably throughout a tidal cycle.[2] Given the distance of these wells from Newark Bay, ENVIRON concluded that the observed tidal influence must be due to ground water recharge and discharge through the wooden flume walls during a tidal cycle. Thus, ground water flowing southeast from Building 31 discharges to the flume before draining to Newark Bay. Further, because these tidal effects have been observed in monitoring wells both north and south of the flume, the flume also represents a localized ground water divide at the Site. The absence of BTEX contamination in monitoring wells immediately south of the flume (i.e., MWs 4 and 5) supports the conclusion that the flume acts as a sink for ground water in this portion of the Site, preventing the migration of ground water from the Building 31 area to other areas south of the flume.

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[2] These studies were described in ENVIRON's June 1988 report for the site entitled *Presentation of the Phase II ECRA Sampling Plan Results and Remediation Strategy/Part I Cleanup Plan.*

IV. DISCUSSION OF ANALYTICAL RESULTS

A. Introduction

Results of the April-May 1995 ground water sampling program and free product measurements are provided on Plate 1, along with the results of the initial November-December 1994 sampling program. Appendix B provides the laboratory deliverables for the April-May 1995 sampling program. The 1994 and 1995 sampling results indicate that: (1) free product is present beneath a small portion of Building 31 and has been delineated; (2) the extent of elevated VOCs in ground water north and south of the building has been delineated; (3) there are alternating high and low BTEX levels south of the building; and (4) the free product appears to be the source of dissolved ground water contamination in monitoring wells south of Building 31. Each of these aspects is discussed below.

B. Free Product Delineation Results

Approximately 1 inch of free product was identified in November 1994 on the water table at Hydro-punch sampling point HP05. Analysis of this product layer indicated that it was more than 90% toluene, ethylbenzene and xylenes. Hydro-punch delineation sampling conducted in April 1995 identified this free product at locations HP14, HP15, HP16, HP18 and HP22. Based on the observed thicknesses of product at these locations, it appears that HP14 was installed near the center of the plume, because the product layer at HP14 was thicker than the 3-foot length of the bailer. The product thicknesses observed at HP15 and HP16 were approximately 0.5 to 1 inch, similar to that previously observed at HP05. Less than 1/8 inch of product was observed at HP22, and only a sheen was seen at HP18. The minimal product thicknesses at HP18 and HP22 confirm that the southern and northern boundaries of the free product condition have been defined. Physical obstructions (e.g., structural members of the building, the trench

system and reactor vessels) prevented installation of Hydro-punch sampling points to the east and west of the area in which the free product was encountered. However, ENVIRON believes that the existing data indicate that the free product is highly localized, confirming that additional sampling east and west of HP14 is not necessary prior to development of an appropriate remedial approach.

The localized nature of the free product is consistent with the potential sources identified for this contamination. As discussed in detail above in Section I.B., information reviewed regarding historical conditions in Building 31 identified three potential pathways for migration of free product to the subsurface: (1) potential breaches in the first floor (including the former loading dock area) and/or the current floor trench system; (2) poor seals around floor drains on the first floor; and (3) breaks in the sewer line beneath the building. Although former Textron personnel indicated that there had been breaches in the integrity of the former combined sewer lines beneath the building, ENVIRON does not believe that this information alone is conclusive with respect to the sewer lines being a source for the observed free product. Further, it is ENVIRON's understanding that sewer line repairs were made on the main branch of the system, located near the center of the building; sampling confirms that no free product is present near this line. Rather, the area of free product is located along a side branch of the former sewer system. Also, a former floor drain and the current trench system are located near where the free product is observed. Thus, based on current information, we are unable to determine the source of the free product.

In its February 22, 1995 letter to Textron, the NJDEP indicated that soil sampling was required to address the former sewer system leaks. However, because the lines are situated at or immediately above the water table, Textron believes that any leakage from the sewer lines would impact ground water rather than the overlying soil column and that former releases from the sewer lines are most appropriately addressed as part of the ongoing ground water investigation.

C. Ground Water Sampling Results

Ground water samples were collected in April 1995 for BTEX analysis from Hydro-punch locations HP10 through HP13, HP20 and HP21, and from MWs 27, 29 and 30.

Summarized sampling results are shown on Plate 1. These results indicate that the ground water sampling at HP21, in combination with the data from MWs 11 and 30, has defined the eastern extent of the dissolved BTEX plume. Additionally, the marked decrease in BTEX levels between SP-4 and HP20, located approximately 41 feet west of SP-4, indicates that HP20 is near the western edge of the plume north of the building. Textron believes that these data are sufficient to evaluate remedial alternatives to address dissolved BTEX levels and that further investigation is not needed.

Regarding the Hydro-punch results south of the building, one additional Hydro-punch sampling point was installed approximately 5 to 7 feet east of each of the 1994 sampling locations to delineate areas of alternating high and low BTEX concentrations. The results of each of these 1995 Hydro-punch locations, also shown on Plate 1, are similar to the data from the 1994 Hydro-punch location immediately to the west. For example, the total BTEX levels at November 1994 locations HP03 and HP07 were 378 ppb and 35,230 ppb, and in the corresponding April 1995 delineation Hydro-punch points HP12 and HP13, 2,510 ppb and 32,530 ppb. Therefore, these 1995 sampling results confirm that there are zones of alternating high and low BTEX levels south of the building.

The confirmed variability in BTEX concentrations downgradient of the building suggests the presence of preferential ground water migration pathways from the free product source. Building construction diagrams indicate that the foundation wall extends to a depth that at times may be below the water table. Further, the foundation footings, including those at locations along the building perimeter, extend to depths well below the water table. Therefore, ground water flow would occur most readily at locations between the foundation footings and beneath the foundation wall. At periods of high water table conditions, the water table may be at a depth less than the base of the foundation wall, inhibiting ground water flow. Additionally, ground water flow through fill material along underground piping is another potential preferential migration pathway.

The free product source, upgradient of most of the exterior Hydro-punch locations, in combination with preferential ground water flow around structural members of Building 31/32, readily explains the observed pattern of BTEX concentrations at most of

the exterior sampling locations. Although elevated BTEX levels were detected at HP07 and HP13, which are not directly downgradient of the free product area, ENVIRON believes that contamination at these locations is also likely attributable to conditions beneath the building. Elevated BTEX concentrations at HP01 suggest that the dissolved-phase BTEX plume has migrated to a greater extent than its free product source and may be present at locations upgradient of HP07 and HP13. ENVIRON believes that these data indicate that dissolved phase constituents migrating beyond the free product source likely result in the BTEX levels detected at HP07 and HP13. Additionally, ENVIRON believes that sampling activities and site operation information confirm that there are no other potential sources for BTEX levels at these locations. First, the April 1995 sampling program confirmed that there is no free product associated with the HP01 area. Second, there is no potential source area beneath the portion of the building adjacent to HP07 and HP13 (i.e., the boiler room). Finally, ground water quality data for wells east of the building (MWs 11 and 30) confirm that the elevated BTEX concentrations at HP07 and HP13 are limited in extent.

D. Quality Assurance/Quality Control Samples

Results of duplicate sample analysis, provided on Plate 1, indicate agreement between the sampling results, with differences between concentrations of less than 10% to approximately 40%, well within the range of variability in the analytical method. Analyses of the trip blanks that accompanied the sampling team during Hydro-punch installation and sampling, and subsequent monitoring well sampling, indicated that BTEX levels were below method detection limits. Similarly, BTEX concentrations in the field blank for the monitoring well sampling event were below method detection limits. However, the field blank associated with the Hydro-punch sampling program contained detectable BTEX levels, likely due to incomplete decontamination of the bailer following collection of samples containing free product.

This field blank was collected after completion of the exterior Hydro-punch sampling south of the building and of the interior Hydro-punch samples in which free product was observed. Because ground water samples from Hydro-punch locations HP20 and HP21 were obtained after this wash blank was collected, BTEX levels in those samples may be

in part attributable to residual BTEX levels present on the sampling equipment. ENVIRON does not believe, however, that these results compromise the usefulness of the data. BTEX levels in the wash blank represent only approximately 10% to 20% of the concentrations reported in sample HP20. Therefore, the relatively minor portion of BTEX constituents potentially attributable to the equipment does not alter the conclusions reached regarding data from HP20. Similarly, the potential contribution to BTEX levels at HP21 is not relevant because those BTEX concentrations at that location were below ground water quality standards.

V. REMEDIAL ACTION WORK PLAN

A. Overview

The purpose of this Remedial Action Work Plan (RAWP) is to outline and discuss the methodology and extent of the proposed remediation relating to the BTEX free product found under Building 31 and the dissolved-phase BTEX in the ground water surrounding and immediately adjacent to Building 31. The guidelines and checklists outlined in the NJDEP document entitled *Guide for the Submission of Remedial Action Workplans*, dated March 1995, were followed in the preparation of this report. The administrative checklist for Remedial Action Work Plans and the ground water natural remediation checklist are presented as Appendix C.

In general, the proposed remediation will involve the removal and disposal of the free product, after which the dissolved-phase BTEX will naturally attenuate through ground water discharge to the underground flume and ultimate mixing and discharge to the SE-2 waters of Newark Bay.

B. Free Product Recovery

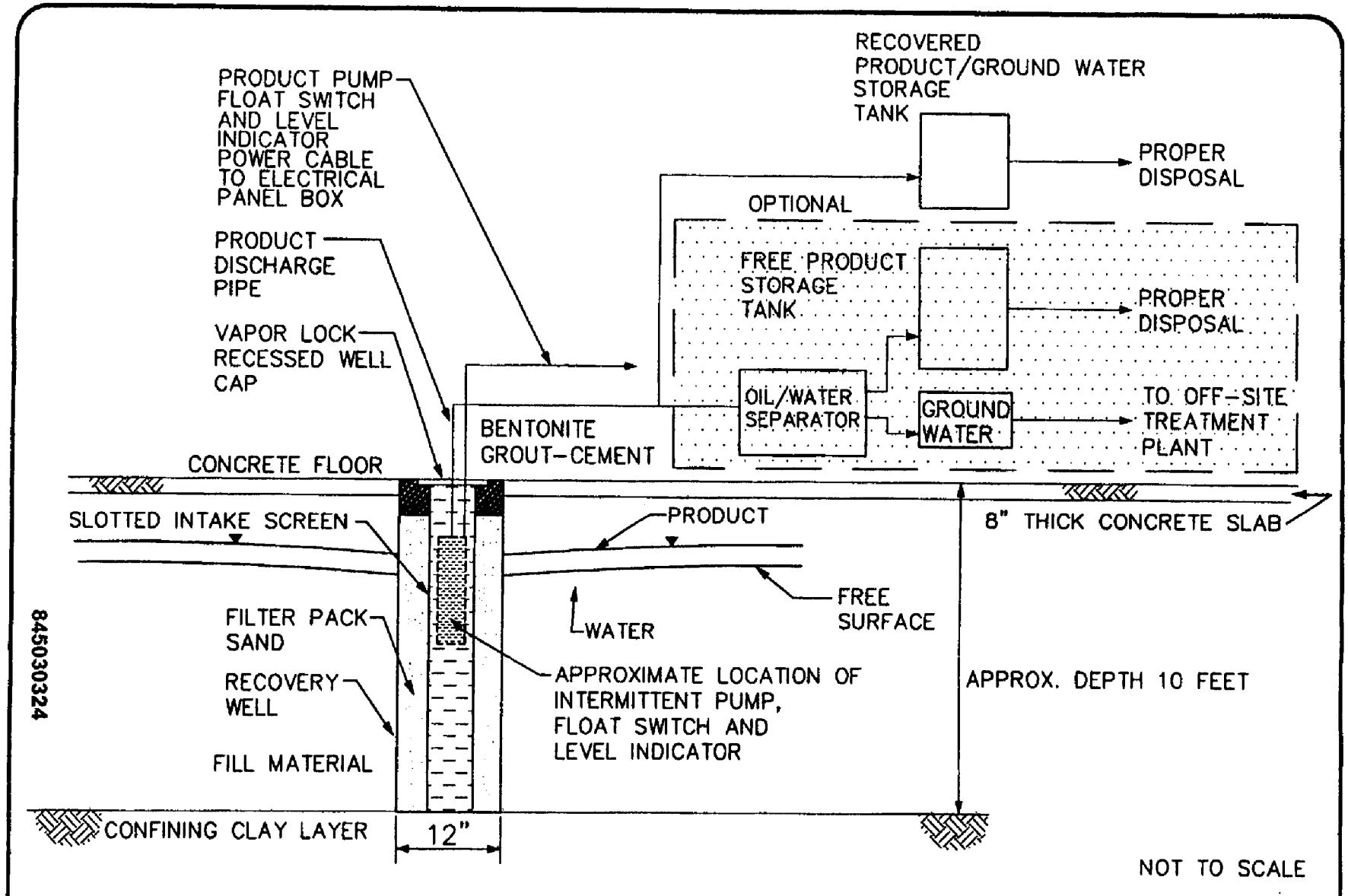
1. Objectives

The objective of the free product recovery is to remove the free-phase material from the ground water surface under Building 31. The extent of the free product, estimated based on Hydro-punch data, is presented on Plate 1. Remediation of the free product phase will effectively remove the source of ongoing dissolved-phase BTEX ground water contamination. After recovery, the free product will be drummed or tanked and disposed off-site in accordance with all appropriate and relevant state, federal and local regulations. The volume of free product anticipated

to be removed is very low, so it is not considered cost-effective to recycle or recover the extracted free product.

2. Recovery System

Figure V-1 shows a conceptual schematic of the proposed free product recovery system. The proposed recovery system for free product removal involves a single well and pump, in-line with a holding tank. An oil/water separator may be placed before the holding tank if it is determined that separate disposal of ground water extracted during free product removal is beneficial and/or cost-effective. Use of one well for extraction purposes will minimize intrusion into and disruption of the Building 31 working area. A 14-inch diameter hole will be cored through the concrete slab, and a limited access cable tool rig will be used to drill and drive a 12-inch pipe to a total depth of approximately 10 feet, extending into the semi-confining clay unit that underlies the surficial saturated zone. Once the casing is advanced, a stainless steel screen, a gravel pack, and a riser will be installed, after which the drive casing will be extracted. The well will be screened in the free product region, and the pump will be installed at the level of the free product to minimize extraction of ground water. The use of one well approximately 8 inches in diameter within the boundary of the free product is expected to effectively remove the free product, as the free product is estimated to cover a relatively small (10 feet x 35 feet maximum) area (see Plate 1). Use of an intermittent pump with a float switch or similar flow regulation device will also help to minimize the quantity of ground water removed along with the free product. Intermittent pumping will continue until all recoverable free product has been removed, after which the recovery well will be periodically inspected for signs of free product accumulation over time. When it has been determined that all recoverable free product has been removed, the recovery well will be abandoned by a licensed and certified New Jersey driller. Plate 1 shows the approximate location of the proposed well, which is subject to change based on actual site and structural conditions observed during installation.



ENVIRON

DRAFTED BY: MC | DATE: 7/26/95

CONCEPTUAL SCHEMATIC OF PROPOSED FREE PRODUCT RECOVERY SYSTEM
TEXTRON, NEWARK, NEW JERSEY

Figure V-1

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C. Natural Remediation of Dissolved BTEX

1. Current Plume Configuration

Plate 1 shows the current plume interpretation derived from monitoring well and Hydro-punch data. The plume includes the gravel trench areas along the north side of Building 31, based on the results of sampling from the vertical standpipes located in these areas. Dissolved BTEX concentrations detected in the ground water in this area are believed to be the result of residual contamination from free-phase resinous material encountered during the 1991-1992 soil cleanup program (see discussion in Section I.B) and not related to the free product observed beneath Building 31. However, the plume configuration was extended to include the trench areas to provide a conservative estimate of the plume extent used in the calculations described below. The underground flume serves as the southern boundary of the plume and the discharge point for this ground water.

2. Cleanup Objectives and Goals

The primary remedial objective regarding dissolved BTEX concentrations in ground water is to prevent migration of dissolved BTEX constituents at levels exceeding applicable standards to potential human and/or ecological receptors, including portions of aquifers not currently impacted and surface water. As discussed above, the predominant ground water discharge location in this portion of the Site is the underground flume. Due to the presence of this pathway, other potential ground water discharge points (e.g., deeper saturated zone, other portions of the shallow aquifer), are not impacted by BTEX levels in the shallow ground water near Building 31. Additionally, there is no ground water withdrawal for industrial, municipal or domestic use in the vicinity, nor are there any basements at the Site. Accordingly, the only potential receptor requiring evaluation is the surface water of Newark Bay.

Based on the discharge of ground water to surface water via the flume, Textron believes that: (1) the appropriate cleanup goals for BTEX concentrations in shallow ground water are the NJDEP surface water quality criteria ("SWQC") for the portion

of Newark Bay adjacent to the Site; and (2) the Natural Remediation Compliance Program is applicable to the Site. The section of Newark Bay bordering the Site is designated by the NJDEP as Class SE-2/SC waters (i.e., saline estuarian and saline coastal waters.) SWQC for benzene, toluene and ethylbenzene for this classification are provided in Table 2. The NJDEP does not currently have a SWQC for xylenes. The surface water quality criteria for SE-2 waters for benzene, ethylbenzene and toluene were calculated based on the protection of human health from the ingestion of contaminated fish (N.J.A.C. 7:9B-1.14(c)) using the procedures specified in the NJDEP document entitled *Basis and Background for the 1992 Proposed Revisions to the Surface Water Quality Standards*. Since NJDEP has not developed a surface water quality criterion for xylene, ENVIRON has used the procedure specified in that NJDEP document to calculate a xylene surface water quality criterion for SE-2 waters that is also based on human health considerations. As specified in the above-mentioned *Basis and Background* document, the following formula and assumptions were used:

$$\text{SE-2 xylene criterion} = \frac{0.0073 \text{ mg/kg/d} \times 70 \text{ kg} \times 1000 \text{ ug/mg}}{0.0065 \text{ kg/d} \times 2.17 \text{ L/kg}} = 36.2 \text{ ppm}$$

where:

0.0073 mg/kg/d	=	RfD (reference dose) used by the State of New Jersey in the development of the New Jersey drinking water standard for xylene.
70 kg	=	Assumed body weight of average adult.
0.0065 kg/d	=	Assumed daily consumption of edible aquatic products.
2.17 L/kg	=	Average bioconcentration factor for xylene obtained from the Hazardous Substances Databank (7/95).

TABLE 2
Surface Water Quality Criteria
for Portion of Newark Bay
Classified as SE-2/SC Waters

Parameter	Surface Water Quality Criteria (ppm)	Locations With Exceedances of Criteria
Benzene	0.071	HP02, HP03, HP04, HP10, HP12, MW27
Toluene	200	HP05
Ethylbenzene	27.9	HP01, HP05, HP06, HP10
Xylenes	NS	NA

Notes:

Surface water quality criteria specified in N.J.A.C. 7:9B-1.14.

NS - Not specified. As described in text, ENVIRON calculated a criterion of 36.2 ppm using the methodology specified in the NJDEP's *Basis and Background for the 1992 Proposed Revisions to the Surface Water Quality Standards*. This xylene criterion was exceeded at locations HP01, HP05, HP06 and HP10.

In order to qualify for the Natural Remediation Compliance Program, the NJDEP indicates that site conditions must satisfy several criteria including: (1) the downgradient extent of the dissolved phase plume has been defined; (2) free product and source areas have been defined and remediated; and (3) contamination above applicable criteria does not impact, and is not expected to reach, potential human and ecological receptors. Textron believes that the ground water conditions near Building 31 satisfy these criteria. First, because the ground water discharges to the flume, the downgradient extent of the plume has been defined as the northern edge of the flume. Second, as described above, Textron proposes to remove the free product detected beneath Building 31, addressing the source of the dissolved BTEX contamination. Third, because of the discharge to the flume and the absence of local ground water withdrawal, there is no potential for ground water with elevated BTEX concentrations to migrate to human receptors. Further, as described below, ground water modeling results demonstrate that BTEX contamination does not, and will not in the future, impact ecological receptors because constituents discharging into the flume do not reach Newark Bay at levels exceeding SWQC. Based on these factors, Textron believes that Site conditions satisfy the NJDEP's requirements with respect to the Natural Remediation Compliance Program.

Textron recognizes that current BTEX concentrations in ground water near Building 31 may require the designation of a Classification Exception Area (CEA). However, because the proposed free product recovery will remove the source of these dissolved BTEX levels, and consequently, it is anticipated that these BTEX levels will decline, Textron believes that the need for a CEA is most appropriately evaluated upon completion of the ground water monitoring program described below.

3. Natural Remediation

Ground water north and south of the underground flume discharges into the flume, which acts as a local sink for ground water. The dissolved BTEX present in the ground water combines with other, non-impacted ground water both south and north of the flume to mix with the flow from Plum Creek, which is collected in the

flume before discharge to Newark Bay. The following paragraphs describe the approach used to estimate the maximum concentrations of BTEX discharged to the SE-2 surface waters of Newark Bay from the area of the current plume configuration presented on Plate 1. The calculations and methodology are discussed below and are presented in detail in Appendix D.

As discussed in the Hydrogeology Section (Section III), the majority of the underground flume is wooden and acts as a sink for ground water both north and south of the flume. In general, benzene, toluene and ethylbenzene levels in ground water, both beneath Building 31 and at exterior locations north and south of the building, are below SWQC. As summarized on Table 2, of the 22 locations sampled in 1994 and 1995, only nine had at least one of these constituents above SWQC, and only two (HP05 and HP10) had two constituents above SWQC. Further, the average levels of these constituents in ground water are consistently below or not materially different from the SWQC. Based on these sporadic occurrences of benzene, toluene and ethylbenzene at levels above SWQC, it appears that dissolved phase BTEX contamination in the Building 31 vicinity is not resulting in significant concentrations being discharged to the flume and Newark Bay. Although these BTEX levels do not suggest that Newark Bay is being adversely impacted by ground water conditions near Building 31, to conservatively evaluate BTEX concentrations potentially discharging to the flume, ENVIRON modeled BTEX levels in the ground water discharge assuming that the maximum detected concentration of each of the BTEX compounds was present throughout the current BTEX plume.

A one-dimensional Darcy approach was used to determine the maximum concentrations of dissolved BTEX discharged to the Newark Bay. The maximum dissolved BTEX levels observed in any well or Hydro-punch were conservatively assumed to be spread over the entire plume area. A value for hydraulic conductivity (1E-3 cm/sec) was obtained from the report entitled *Presentation of the Phase II ECRA Sampling Plan Results and Remediation Strategy/Part I Cleanup Plan for the Spencer Kellogg Facility Formerly a Division of Textron, Inc.* dated June 1988. In addition, Figures III-1 through III-7 of that report show the elevations of the ground water surface in the area of the flume and clearly indicate that the ground water in

this area is collected by the flume. These figures were used to determine the hydraulic gradients of the areas both north and south of the flume. The maximum average hydraulic gradient north of the flume and the corresponding hydraulic gradient for the area south of the flume were used to produce a conservative estimate of the maximum concentrations expected to be discharged to Newark Bay.

Due to the relatively short travel distance of the plume to the flume, it was assumed that advection (ground water flow) would dominate over diffusion and retardation. Data from the aforementioned June 1988 Results Report show an average fill layer depth of 8 feet, with the ground water surface at an average depth between 2 feet and 4 feet below ground surface. Using this data, an average aquifer thickness of 5 feet (1.52 meters) was used to conservatively conceptualize the quantity of ground water discharging to the flume. Although it is widely recognized that a concentration distribution exists in a realistic plume scenario, the dissolved phase BTEX plume depth was conservatively assumed to extend from the ground water surface to the silty clay confining unit, covering the entire aquifer depth in the estimated plume area.

Finally, quantities for flow in Plum Creek, assumed to represent clean ground water discharge into the flume, and flow from ground water contaminated with the maximum dissolved BTEX levels observed at any sampling location, were determined and used to calculate the concentrations of dissolved BTEX discharged into Newark Bay. It should be noted that in addition to the mixing occurring in the flume, additional mixing will realistically occur upon flume exit to Newark Bay. The flow rate for Plum Creek was obtained through estimates provided by the U.S. Geological Survey (USGS) Water Resources Division, and is appended to the discharge calculations. As mentioned in Section IV.C, samples from locations south of the flume show that the dissolved BTEX plume does not extend southward of the flume, so the dissolved BTEX is effectively captured by the flume.

Table 3 presents the results of these calculations for Plum Creek at the full flow rate, as determined by the U.S.G.S. As seen in the table, the levels of dissolved BTEX are well below existing New Jersey surface water discharge criteria for SE-2 waters. Therefore, Textron believes that active recovery and treatment of the

TABLE 3
BTEX Concentrations Discharged into Newark Bay Based on Flow Rate in Plum Creek. Estimated by USGS

Contaminant	(Mass Loading Rate) x (Flume Flow Rate)	Maximum Concentration Discharged to Bay	New Jersey Surface Water Criteria for SE-2 Waters
Benzene	(23.3 μg/sec)/(28.6 L/sec)	= 0.815 μg/L	71 μg/L
Ethylbenzene	(8,360 μg/sec)/(28.6 L/sec)	= 292 μg/L	27,900 μg/L
Toluene	(11,880 μg/sec)/(28.6 L/sec)	= 415 μg/L	200,000 μg/L
Xylenes	(25,520 μg/sec)/(28.6 L/sec)	= 892 μg/L	No standard

dissolved plume are not necessary, in that the existing discharge is protective of the environment.

4. Ground Water Monitoring

To confirm the effectiveness of the free product/source removal action, Textron proposes to monitor ground water quality in the Building 31 vicinity on a quarterly basis for one year following completion of the free product recovery. This monitoring period was selected because Textron believes that it is an appropriate timeframe to evaluate changes in dissolved BTEX levels. Additionally, this proposed program is consistent with a previous NJDEP approval for a one-year quarterly ground water monitoring program at the Site for five wells located in an area where elevated BTEX levels were similar to those detected at MW27. That monitoring program, conducted in the portion of the Site between Buildings 4 and 12 following the 1991-1992 soil cleanup program, was designed to verify that BTEX levels either remained relatively constant or decreased following removal of the soil source area. Given the similarity between that source removal and ground water monitoring program to the remedial actions proposed in this Plan, Textron believes that a one-year ground water monitoring program is sufficient to verify the effectiveness of the proposed remedial actions.

The proposed quarterly ground water monitoring network include MWs 29 and 30 to document BTEX levels near the plume boundaries, MW27 to determine BTEX levels near the center of the plume, and vertical standpipes SP-3 and SP-4 to verify the effectiveness of the 1991-1992 source removal action north of the building. Although hydrogeological data indicates that the vertical standpipes are upgradient of the building, and, therefore, are not affected by the free product condition, Textron proposes additional sampling of these standpipes to enable a comparison with ground water data from the November 1994 sampling round. These data will be statistically evaluated to determine whether the BTEX levels are remaining stable or are significantly decreasing. Because of the similar BTEX levels previously detected at the standpipes in November 1994, sampling of all of the standpipes is unnecessary. Additionally, SP-2 is damaged and not suitable for sampling. Other

NJDEP requirements related to ground water monitoring under the Natural Remediation Compliance Program (i.e., documentation of ground water uses on a 25-year planning horizon and notification of downgradient property owners) do not apply to the Site because of its location on Newark Bay and the discharge of ground water to the flume.

The proposed ground water sampling will be conducted using current NJDEP-recommended procedures. Depths to water and well bottom will be measured at each of these wells, and the volume of standing water calculated. A minimum of three well volumes will be purged using a peristaltic pump. During this purging, pH, temperature, and specific conductance readings will be recorded at a rate of at least once per well volume with purging continued until these parameters have essentially stabilized. Ground water samples will be withdrawn using a Teflon bailer after the water level returns to near static conditions. During each sampling round, one trip blank, one field blank and one duplicate ground water sample will be collected.

VI. PRELIMINARY SCHEDULE AND COST ESTIMATE

A. Preliminary Schedule

It is estimated that 1 to 2 months will be required for procurement and installation of the free product recovery system, and between 3 to 9 months will be required to remove the recoverable free product. Quarterly ground water monitoring will be conducted for 1 year after the end of the free product recovery, after which the need for further monitoring and/or a classification exception will be evaluated.

B. Preliminary Cost Estimate

Table 4 presents the conceptual cost estimate for the free product recovery and ground water monitoring. Total costs are estimated at $47,000 including ENVIRON's supervision during system installation and start-up, and monthly visits to check system operation and product thickness in the recovery well. Five 55-gallon drums of a free product and water mixture were assumed based on the current understanding of the amount of recoverable free product and recovered ground water expected from the free product removal system, but this is subject to change based on determination of the actual quantities recovered. The cost for ground water monitoring is based on implementing the program described in Section V.4.

TABLE 4
Conceptual Cost Estimate for the Free Product Recovery and Ground Water Monitoring
Textron Inc., Newark, New Jersey

Cost Item	Capital Cost
FREE PRODUCT RECOVERY	
Well Installation, Pump, Holding Tank	$25,000
Transportation and Disposal Costs (Assuming 5 drums of free product w/water layer)	$2,000
Free Product Recovery Subtotal	**$27,000**
Engineering, Design and Construction Oversight	**$10,000**
Contingency (20%)	**$5,000**
FREE PRODUCT RECOVERY TOTAL	**$42,000**
GROUND WATER MONITORING	$5,000
GRAND TOTAL	**$47,000**

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

JUN - 8 2006

GENERAL NOTICE LETTER
URGENT LEGAL MATTER
PROMPT REPLY NECESSARY
CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Patricia Bishopp, Esq.
Textron Inc.
40 Westminster Street
Providence, RI 02903

Re: Diamond Alkali Superfund Site
Notice of Potential Liability for
Response Actions in the Lower Passaic River Study Area, New Jersey

Dear Ms. Bishop:

The United States Environmental Protection Agency ("EPA") is charged with responding to the release and/or threatened release of hazardous substances, pollutants, and contaminants into the environment and with enforcement responsibilities under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. § 9601 et seq. EPA is seeking your cooperation in an innovative approach to environmental remediation and restoration activities for the Lower Passaic River.

EPA has documented the release or threatened release of hazardous substances, pollutants and contaminants into the six-mile stretch of the river known as the Passaic River Study Area, which is part of the Diamond Alkali Superfund Site ("Site") located in Newark, New Jersey. Based on the results of previous CERCLA remedial investigation activities and other environmental studies, including a reconnaissance study of the Passaic River conducted by the United States Army Corps of Engineers ("USACE"), EPA has further determined that contaminated sediments and other potential sources of hazardous substances exist along the entire 17-mile tidal reach of the Lower Passaic River. Thus, EPA has decided to expand the area of study to include the entire Lower Passaic River and its tributaries from Dundee Dam to Newark Bay ("Lower Passaic River Study Area").

By this letter, EPA is notifying Textron, Inc. of its potential liability relating to the Site pursuant to Section 107(a) of CERCLA, 42 U.S.C. § 9607(a). Under CERCLA, potentially responsible parties ("PRPs") include current and past owners and operators of a facility, as well as persons who arranged for the disposal or treatment of hazardous substances at the Site, or the transport of hazardous substances to the Site.

In recognition of our complementary roles, EPA has formed a partnership with USACE and the New Jersey Department of Transportation-Office of Maritime Resources ("OMR") ["the governmental partnership"] to identify and address water quality improvement, remediation, and restoration opportunities in the 17-mile Lower Passaic River Study Area. This governmental partnership is consistent with a national Memorandum of Understanding ("MOU") executed on July 2, 2002 between EPA and USACE. This MOU calls for the two agencies to cooperate, where appropriate, on environmental remediation and restoration of degraded urban rivers and related resources. In agreeing to implement the MOU, the EPA and USACE will use their existing statutory and regulatory authorities in a coordinated manner. These authorities for EPA include CERCLA, the Clean Water Act, and the Resource Conservation and Recovery Act. The USACE's authority stems from the Water Resources Development Act ("WRDA"). WRDA allows for the use of some federal funds to pay for a portion of the USACE's approved projects related to ecosystem restoration.

For the first phase of the Lower Passaic River Restoration Project, the governmental partners are proceeding with an integrated five-to-seven-year study to determine an appropriate remediation and restoration plan for the river. The study will involve investigation of environmental impacts and pollution sources, as well as evaluation of alternative actions, leading to recommendations of environmental remediation and restoration activities. The study is being conducted pursuant to CERCLA and WRDA.

Based on information that EPA evaluated during the course of its investigation of the Site, EPA believes that hazardous substances were released from the Spencer Kellogg Division facility located at 400 Doremus Avenue in Newark, New Jersey, into the Lower Passaic River Study Area. Hazardous substances, pollutants and contaminants released from the facility into the river present a risk to the environment and the humans who may ingest contaminated fish and shellfish. Therefore, Textron, Inc. may be potentially liable for response costs which the government may incur relating to the study of the Lower Passaic River. In addition, responsible parties may be required to pay damages for injury to, destruction of, or loss of natural resources, including the cost of assessing such damages.

EPA is aware that the financial ability of some PRPs to contribute toward the payment of response costs at the Site may be substantially limited. If you believe, and can document, that you fall within that category, please inform Sarah Flanagan and William Hyatt in writing at the addresses identified below in this letter. You will be asked to submit financial records including federal income tax returns as well as audited financial statements to substantiate such a claim.

Please note that, because EPA has a potential claim against you, you must include EPA as a creditor if you file for bankruptcy. You are also requested to preserve and retain any documents now in the possession or control of your Company or its agents that relate in any manner to your facility or the Site or to the liability of any person under CERCLA for response actions or response costs at or in connection with the facility or the Site, regardless of any corporate document retention policy to the contrary.

Enclosed is a list of the other PRPs who have received notices of potential liability. This list represents EPA's findings on the identities of PRPs to date. We are continuing efforts to locate additional PRPs who have released hazardous substances, directly or indirectly, into the Lower Passaic River Study Area. Exclusion from the list does not constitute a final determination by EPA concerning the liability of any party for the release or threat of release of hazardous substances at the Site. Please be advised that notice of your potential liability at the Site may be forwarded to all parties on this list as well as to the Natural Resource Trustees.

We request that you become a "cooperating party" for the Lower Passaic River Restoration Project. As a cooperating party, you, along with many other such parties, will be expected to fund the CERCLA study. Upon completion of the study, it is expected that CERCLA and WRDA processes will be used to identify the required remediation and restoration programs, as well as the assignment of remediation and restoration costs. At this time, the commitments of the cooperating parties will apply only to the study. For those who choose not to cooperate, EPA may apply the CERCLA enforcement process, pursuant to Sections 106(a) and 107(a) of CERCLA, 42 U.S.C. § 9606(a) and § 9607(a) and other laws.

You may become a cooperating party by participating in the Cooperating Parties Group ("Group") that has already formed to fund the CERCLA study portion of the Lower Passaic River Restoration Project.

We strongly encourage you to contact the Group to discuss your participation. You may do so by contacting:

William H. Hyatt, Esq.
Common Counsel for the Lower Passaic River Study Area Cooperating Parties Group
Kirkpatrick & Lockhart LLP
One Newark Center, 10th Floor
Newark, New Jersey 07102
(973) 848-4045
whyatt@kl.com

Written notification should be provided to EPA and Mr. Hyatt documenting your intention to join the Group and settle with EPA no later than 30 calendar days from your receipt of this letter. The result of any agreement between EPA and your Company as part of the Group will need to be memorialized in an Administrative Order on Consent. Your written notification to EPA

should be mailed to:

Sarah Flanagan, Assistant Regional Counsel
Office of Regional Counsel
U.S. Environmental Protection Agency
290 Broadway - 17th Floor
New York, New York 10007-1866

Pursuant to CERCLA Section 113(k), EPA must establish an administrative record that contains documents that form the basis of EPA's decision on the selection of a response action for a site. The administrative record file and the Site file are located at EPA's Region 2 Superfund Records Center, at 290 Broadway, New York, NY, on the 18th floor. You may call the Records Center at (212) 637-4308 to make an appointment to view the administrative record and/or the Site file for the Diamond Alkali Site, Passaic River.

As you may be aware, the Superfund Small Business Liability Relief and Brownfields Revitalization Act became effective on January 11, 2002. This Act contains several exemptions and defenses to CERCLA liability, which we suggest that all parties evaluate. You may obtain a copy of the law via the Internet at **http://www.epa.gov/swerosps/bf/sblrbra.htm** and review EPA guidances regarding these exemptions at **http://www.epa.gov/compliance/resources/policies/cleanup/superfund.**

Inquiries by counsel or inquiries of a legal nature should be directed to Ms. Flanagan at (212) 637-3136. Questions of a technical nature should be directed to Elizabeth Butler, Remedial Project Manager, at (212) 637-4396.

Sincerely yours,

R. Basso

Ray Basso, Strategic Integration Manager
Emergency and Remedial Response Division

Enclosure 6-06