

March 28, 2014

Bureau of Case Assignment & Initial Notice Site Remediation Program NJ Department of Environmental Protection 401-05H PO Box 420 Trenton, NJ 08625-0420

RE: "May 7, 2014, Remedial Investigation Complete" Supporting Documentation Form Textron, Inc. (aka. Former Spencer-Kellogg Facility) 400 Doremus Avenue Newark, NJ 07105 SRI ID# 015922, ISRA Case# E85403 & E89281

Dear Sir or Madame:

AMEC Environment & Infrastructure, Inc. (AMEC) is submitting this letter, on behalf of Textron, Inc. (Textron), to provide supporting documentation for the enclosed "May 7, 2014, Remedial Investigation Complete" Supporting Documentation Form (RI Complete Form).

On June 17, 2013 NJDEP sent a Compliance Assistance Alert letter to Textron as a reminder that the remedial investigation (RI) must be completed for all pre-May 7, 1999 AOCs by the statutory May 7, 2014 deadline (as set forth by *SRRA, NJSA 58:10C-27a(3)*). Textron believes the remedial investigation has been completed, in accordance with the NJDEP's *Interpretation of SRRA Requirement to Complete the Remedial Investigation by May 2014* (June 2013), for the above referenced Former Spencer-Kellogg Facility, ISRA Case # E85403 & E89281. The attached RI Complete Form and supporting documentation has been prepared, pursuant to the June 17, 2013 Compliance Assistance Alert letter, to document that the remedial investigation is complete.

AMEC and Textron reviewed internal historic project files and performed an in-person file review at the NJDEP Office of Record Access and compiled certain documents that demonstrate the RI has been completed. Following the file review AMEC prepared a Case Inventory Document (CID) that summarizes the status of the AOCs identified at the Site (CD-enclosed).

As shown on the CID, the bulk of the AOCs were remediated in the early 1990s and NFA status was approved by NJDEP on an AOC-by-AOC basis. For the remaining AOCs, the RI was completed more recently (under the LSRP Program) and remediation is currently ongoing. The rightmost column on the CID indicates which document supports the RI Complete status for each AOC. These documents are included on the enclosed CD and include NJDEP NFA approval letters and NJDEP letters specifically stating "the delineation is complete" for individual AOCs. Also included are Remedial Investigation Report Forms, a Remedial Action Report Form and a Receptor Evaluation Form previously submitted to NJDEP by the LSRP.

Please contact Richard C. Karr at 610-877-6154 if you should require further information or have any questions.

Sincerely,

AMEC Environment & Infrastructure, Inc.

Michael J. Thomas Environmental Professional III

Richard C. Karr, P.G. Associate Geologist

Enc:

- "May 7, 2014, Remedial Investigation Complete" Supporting Documentation Form
- Supporting Documentation CD:
 - Case Inventory Document
 - Figure 1 1990s ECRA Areas of Environmental Concern
 - Figure 2 Current Areas of Environmental Concern
 - Supporting Document 1 March 30, 1987 ECRA Sampling Results Report (page 51, table 2)
 - Supporting Document 2 February 8, 1991 NJDEP Letter
 - Supporting Document 3 August 30, 1994 NJDEP Letter
 - Supporting Document 4 November 24, 1993 NJDEP Letter
 - Supporting Document 5 February 22, 1995 NJDEP Letter
 - Supporting Document 6 June 16, 2009 NJDEP Letter
 - Supporting Document 7 March 30, 1993 NJDEP Letter
 - Supporting Document 8 January 24, 1996 NJDEP Letter
 - Supporting Document 9 October 31, 1991 NJDEP Letter
 - Supporting Document 10 December 9, 1996 NJDEP Letter
 - Supporting Document 11 October 29, 2010 RIR Form
 - Supporting Document 12 January 30, 1989 NJDEP Letter
 - Supporting Document 13 April 7, 1994 NJDEP Letter
 - Supporting Document 14 April 3, 1990 NJDEP Letter
 - Supporting Document 15 March 27, 2014 AOC8 LNAPL RIR Form
 - Supporting Document 16 April 28, 2009 NJDEP Letter
 - Supporting Document 17 August 5, 2011 RAR Form
 - Supporting Document 18 September 2012 RE Form (EE)

AMEC Environment & Infrastructure, Inc. 751 Arbor Way Suite 180 Blue Bell, Pennsylvania USA 19422-1960 Fax (610) 828-6700

New Jersey Department of Environ Site Remediation Program "MAY 7, 2014, REMEDIAL INVESTIG	Mental Protection	
SUPPORTING DOCUMENTATION F	ORM	Date Stamp (For Department use only)
SECTION A. SITE NAME AND LOCATION		
Site Name: Textron, Inc.		
List all AKAs: Former Spencer-Kellogg Facility, Reichhold	I Chemical, Reichhold, Inc.	
Street Address: 400 Doremus Avenue		
Municipality: Newark	(Township, Borough or City)	
County: Essex	Zip Code: 07105	
Program Interest (PI) Number(s): 015922	Activity Number(s): LSR10	0001
Municipal Block(s) and Lot(s): Block 5070, Lots 9, 9.01, 17	, 11.01	
SECTION B. DOCUMENTATION TYPES		
Indicate the type of documentation being provided. (Check No Further Action (NFA) Letter previously issued by N NJDEP letter(s) stating that the remedial investigation Previously submitted Remedial Investigation Report(s) The discharge occurred after May 7, 1999 Discrepancy in discharge location Other Supporting Documentation	<i>c all that apply)</i> JDEP was completed) that did not receive NJDEP re	esponse by May 7, 2012
SECTION C. PERSON RESPONSIBLE FOR CONDUCTION	NG THE REMEDIATION INFO	RMATION AND CERTIFICATION
Full Legal Name of the Person Responsible for Conducting	the Remediation: Textron,	Inc.
Representative First Name: Gregory	Representative Last Name:	Simpson
Title: Remediation Manager		
Phone Number: (401) 457-2635 Ext:	Fax	: (401) 457-6028
Mailing Address: 40 Westminster Street		
City/Town: Providence Sta	te: RI	Zip Code: 02903
Email Address: gsimpson@textron.com		
This certification shall be signed by the person responsible in accordance with Administrative Requirements for the Re	for conducting the remediation mediation of Contaminated Site	who is submitting this notification es rule at N.J.A.C. 7:26C-1.5(a).
I certify under penalty of law that to the best of my knowled complete. I am aware that there are significant civil penalties information and that I am committing a crime of the fourth of to be true. I am also aware that if I knowingly direct or auth penalties.	ge, I believe that the submitted is for knowingly submitting fals legree if I make a written false prize the violation of any statut	I information is true, accurate and e, inaccurate or incomplete statement which I do not believe e, I am personally liable for the
Signature:	Date: _/	ARCH 25, 2019
Name/Title: Gregory Simpson/Remediation Manager		
Completed forms should be sent to: Bureau of Ca Site Remedia NJ Departme 401-05H PO Box 420 Trenton, NJ 0 Attn: May 20	se Assignment & Initial Notice Ition Program nt of Environmental Protection 08625-0420 14 Deadline	

N	Row umber	Area of Concern, Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Rece	ptors	Environmental Media to be Addressed by Rl	Current Status / Outcome	RI Complete?	Remediation Complete?	Regulatory Status
						Existing	Potential	M				
	AEC 1 - Resin Spill on Cracked Pavement (aka Area 1) (Figure 1) Soil Groundwater		Soil Groundwater	VOCs	Direct Contact Groundwater Surface Water	Land Use Ecological Vapor Intrusion	Same as Existing	Soil	March 30, 1987 ECRA Sampling Results (Phase I) - Soil samples were collected from boring 101 and contained VOCs in concentrations above ECRA guidelines (page 51, Table 2). September 26, 1986 letter to NJDEP - AEC 24 combined with AEC 1. February 8, 1991 NJDEP Letter - NJDEP approval of Revised Cleanup levals. July 1992 Final Report on Soils Remediation - LTTA remediation performed to remediate VOC impacts. 307 cubic yards of soil was excavated, treated and replaced. To address potential data gaps in the site characterization, soil was excavated, treated and to replaced. To address potential data gaps in the site characterization, soil was excavated vertically down to the water table and horizontally until post excavation samples were below the cleanup levels (2/8/1991 NJDEP Letter, page 2, section II). All to ne post-remediation sample were below the cleanup levels (2/8/1991 NJDEP Letter, page 2, section II). All to ne post-remediation sample were below the cleanup levels. Post-remediation soil samples P-98 and P-98A were collected from southern sidewall below concrete dike surrounding an AST and contained VOCs above the cleanup levels (10 ppm). The excavation was extended as far as possible and remediation was complete. Sample location P-98/P-98A was resampled in 1995 to demonstrate degradation of VOCs (re-sampling was approved by NJDEP by letter on 8/30/1994 (page 1, #2)). Total VOCs from the 1995 resampling were above the cleanup levels but below the NJDEP accepted 1,000 ppm maximum for total VOCs. November 24, 1993 NJDEP Letter - No further action for the thermally treated soils (page 1, section I.A.). February 2, 1995 NJDEP Letter - No further soil investigation required. IGW exceedances to be addressed by ongoing groundwater investigation (page 1, #2). "The remaining soil above the IGW standards consists of the same COCs and is located within the footprint of the ongoind AOC 8 remediation area. See Row 37." June 1, 2009 Anmendment to SRI # 3 and RAWP - Pursuant to NJDEP request (4/28/2009 NOD Letter) Text	Yes	Proposed remediation for AEC 1 completed. Additional remediation needed for this area of the site is being addressed as AOC-8 (Row 37)	Closed
								Groundwater	Site-wide groundwater was addressed during the Phase I and Phase II investigations and with long term monitoring (See Row 36).			
								Air (Vapor Intrusion) Ecological	Site-wide VI Investigation performed from 2007 - 2013. No Further VI investigation is needed. (See Row 42)	-		
								(Surface Water, Sediment)	Ecological impacts were evaluated for the entire site rather than AOC-by-AOC and the results are discussed separately below. (See Row 41) March 30. 1987 ECRA Sampling Results (Phase I) - VOCs in soil boring 201			
	2	AEC 2 - Possible Discharge from Dumpster (Building 31/32) (aka Area 2) (Figure 1)	Soil	VOCs BNs	Direct Contact Groundwater Surface Water	Land Use Ecological Vapor Intrusion	Same as Existing	Soil	were below the ECRA guidelines (page 51, Table 2). October 1990 Additional ECRA Sampling Results and Revised Cleanup Plan - Surface and sub-surface soil samples were collected from boring 202 and analyzed for BNs and VOCs. Sample results indicated B/Ns and VOCs were below ECRA guidelines. February 8, 1991 NJDEP Letter - NFA approved (page 3, section ILB.1). March 30, 1993 NJDEP Letter - NFA rescinded pending comparison of analytical results to 1994 human health based criteria (page 2, section I.C) June 28, 1993 Textron Technical Response Letter - Textron compared the previous sample results to the 1994 rhealth based cleanup criteria. All results were found to be below the 1994 criteria. November 24, 1993 NJDEP Letter - NFA approved (page 1, section I.A). June 1, 2009 Amendment to SRI # 3 and RAWP - Pursuant to NJDEP request (4/28/2009 NDD Letter) Textron compared the remaining soil contaminant concentrations were found to be ablow the 2008 standards but less than 1 OM greater. EIC were found to be still effective. No further action is needed. June 16, 2009 NJDEP Letter - NJDEP Approval of 6/1/09 Amendment to SRI # 3 and RAWP.	Yes	Remediation Not Required	Closed / No Further Action
								Air	with long term monitoring (See Row 36). Site-wide VI Investigation performed from 2007 - 2013. No Further VI	1		
								Ecological (Surface Water, Sediment)	Ecological impacts were evaluated for the entire site rather than AOC-by-AOC and the results are discussed separately below. (See Row 41)			

Active Under LSRP Program?	RI Complete Supporting Documentation
Νο	March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1) February 8, 1991 NJDEP Letter (Document 2) August 30, 1994 NJDEP Letter (Document 3) November 24, 1993 NJDEP Letter (Document 4) February 22, 1995 NJDEP Letter (Document 5) June 16, 2009 NJDEP Letter (Document 6)
No	March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1) February 8, 1991 NJDEP Letter (Document 2) March 30, 1993 NJDEP Letter (Document 7) November 24, 1993 NJDEP Letter (Document 4) June 16, 2009 NJDEP Letter (Document 6)

Row Number	Area of Concern, Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Reco	eptors	Environmental Media to be Addressed by RI	Current Status / Outcome	RI Complete?	Remediation Complete?	Regulatory Status	Active Under LSRP Program?	RI Complete Supporting Documentation
					Existing	Potential	N						
3	AEC 3 - Building 31/32 (Resin Spill During Railroad Loading) (aka Area 3) (Figure 1)	Soil Groundwater	BNs VOCs	Direct Contact Groundwater Surface Water Vapor Intrusion	Groundwater Land Use Ecological Vapor Intrusion	Same as Existing	Soil Groundwater Air (Vapor Intrusion) Ecological (Surface Water, Sediment)	March 30, 1987 ECRA Sampling Results (Phase I) - TPHC and VOCs exceeded ECRA guidelines (page 51, Table 2) in soil borings 301-303. June 14, 1988 Phase II ECRA Sampling Results - Metals (chromium and mercury) exceeded ECRA squidelines, but were below 1994 health based cleanup criteria. January 30, 1989 NJDEP Letter - Metal contamination is associated with fill material. Remediation of metal contamination is not required (page 1, section 11). Deed Notice may be required. April 3, 1990 NJDEP Letter - NJDEP will require a deed restriction for metals contamination. September 10, 1990 - Meeting between NJDEP and Textron/Environ to discuss the need for a deed restriction for metals associated with fill material. September 14, 1990 Environ Letter - Foliow up to the September 10 discussion regarding the metal contamination associated with the fill material and the need for a deed restriction is needed. October 1990 Additional ECRA Sampling Results and Revised Cleanup Phase I results, then no remediation or deed restriction is needed. October 1990 Additional ECRA Sampling Results and Revised Cleanup Plan fincluding cleanup levels). The proposel additional sampling for lead and arsenic is acceptable (page 5, section II.8.6). May 22, 1991 Cleanup Plan Progress Report - The results of the additional lead and arsenic sampling were not materially different from the Phase II results. No further action (including a deed notice) is required. October 31, 1991 NJDEP Letter - NIX for the additional lead and arsenic sampling locations is approved (pages 7-8). July 1992 Final Report on Soils Remediation - LTTA remediation performed to remediate VOC impacts (B/Ns addressed under AEC entitled Boring 306/307 area [*] , see below). To address potential data gaps in the site characterization, soil was execavated with tell. 1, 1.333 cubig vards of soil (from AEC 3, 4 & 6 combined) were excavated with up vards of soil (from AEC 4, 4 & 5 combined) were exeavated, threated and replaced. All but one post-remediation sample were below the cleanu	Yes	Proposed remediation for AEC 3 completed. Additional remediation needed for this area of the site is being addressed as Building 31/32 (Row 40)	Closed	No	March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1) January 30, 1989 NJDEP Letter (Document 2) October 31, 1991 NJDEP Letter (Document 3) August 30, 1994 NJDEP Letter (Document 3) November 24, 1993 NJDEP Letter (Document 5) January 24, 1996 NJDEP Letter (Document 6) June 16, 2009 NJDEP Letter (Document 6)

	Ama - (0						Environmental						
Row Number	Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Rece	ptors	Media to be Addressed by RI	Current Status / Outcome	RI Complete?	Remediation Complete?	Remediation Complete? Regulatory Status		RI Complete Supporting Documentation
					Existing	Potential							
4	AEC 4 - Discharge of Fish Oil and Vegetable Oil During RR Loading at Building 31/32 (aka Area 4) (Figure 1)	Soil Groundwater	VOCs	Direct Contact Groundwater Surface Water Vapor Intrusion	Groundwater Land Use Ecological Vapor Intrusion	Same as Existing	Soil Groundwater Air (Vapor Intrusion) Ecological (Surface Water, Sediment)	March 30, 1987 ECRA Sampling Results (Phase I) - TPHC and VOCs exceeded ECRA quidelines (page 51, Table 2) in two solt borings (401 & 402). June 14, 1988 Phase II ECRA Sampling Results - Metals (cadmium) exceeded ECRA guidelines, but were below 1994 health based cleanup criteria. January 30, 1989 NJDEP Letter - Metal contamination is associated with fill material. Remediation of metal contamination is not required (page 1, section 11). Deed Notice may be required. April 3, 1990 NJDEP Letter - NJDEP will require a deed restriction for metals contamination. September 10, 1990 - Meeting between NJDEP and Textron/Environ to discuss the need for a deed restriction for metals associated with the fill material. September 14, 1990 Environ Letter - Follow up to the September 10 discussion regarding the metal contamination associated with the fill material and the need for a deed restriction. Additional soil sampling for lead and arsenic is to be performed. If those results are not materially different from the Phase II results, then no remediation or deed restriction is needed. February 8, 1991 NJDEP Letter - NJDEP approval of Revised Cleanup Plan (including cleanup levels). The proposed additional sampling for lead and arsenic is acceptable (page 5, section II.8.6). May 22, 1991 Cleanup Plan Progress Report - The results of the additional lead and arsenic sampling were not materially different from the Phase II results. No further action (including a deed notice) is required. October 31, 1991 NJDEP Letter - NFA for the additional lead and arsenic sampling locations is approved (pages 7-8). July 1992 Final Report on Soils Remediation - LTTA remediation performed to remediate VOC impacts. To address potential data gaps in the site characterization, soil was excavated vertically down to the water table and horizontally until post excavation samples were below the cleanup levels (28/1991 NJDEP Letter - NFA for the south (P-65A and P-86A). Re- sampling of locations F-76 and P-85A was performed in 1995 to demonstrate degrada	Yes	Proposed remediation for AEC 4 completed. Additional remediation needed for this area of the site is being addressed as Building 31/32 (Row 40)	Closed	Ν	March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1) January 30, 1989 NJDEP Letter (Document 2) October 31, 1991 NJDEP Letter (Document 9) August 30, 1994 NJDEP Letter (Document 3) November 24, 1993 NJDEP Letter (Document 3) February 22, 1995 NJDEP Letter (Document 5) June 16, 2009 NJDEP Letter (Document 6)

Row Number	Area of Concern, Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Rece	ptors	Environmental Media to be Addressed by RI	Current Status / Outcome	RI Complete?	Remediation Complete?	Regulatory Status
5	AEC 5 - Discharge of Phthalic Anhydride During RR Unloading (Building 31/32) (aka Area 5) (Figure 1)	Soil Groundwater	VOCs	Direct Contact Groundwater Surface Water Vapor Intrusion	Groundwater Land Use Ecological Vapor Intrusion	Same as Existing	Soil	October 1990 Additional ECRA Sampling Results and Revised Cleanup Plan - Soil sample results (boring 502) exceeded ECRA guidelines for total VOCs. February 8, 1991 NJDEP Letter - NJDEP approval of Revised Cleanup Plan (including cleanup levels). July 1992 Final Report on Soils Remediation - LTTA remediation performed to remediate VOC impacts. To address potential data gaps in the site characterization, soil was excavated vertically down to the water table and horizontally until post excavation samples were below the cleanup levels (2/8/1991 NJDEP Letter, page 2, section II). 1,333 cubic yards of soil (from AEC 3, 4 & 5 combined) were excavated, treated and replaced. All but one post-remediation sample P-76, along a concrete retaining wall at the northerm property boundary, exceeded the NJDEP approved cleanup levels (2/8/91). Post-remediation sample P-76, along a concrete retaining wall at the northerm property boundary, exceeded the NJDEP approved cleanup levels (2/8/91). Post-remediation sample P-76, along a concrete retaining wall at the northerm property boundary, exceeded the NJDEP approved cleanup levels (2/8/91). Post-remediation sample P-76, along a concrete retaining wall at the northerm property boundary, exceeded the NJDEP approved cleanup levels (2/8/91). Post-remediation sample P-76, along a concrete retaining wall at the northerm property boundary, exceeded the NJDEP approved cleanup levels (2/8/91). Post-remediation sample P-76, along a concrete retaining wall at the northerm property boundary, exceeded the NJDEP approved cleanup levels (2/8/91). Post-remediation sample P-76, along a concrete retaining wall at the northerm property boundary, exceeded by Ongo promaximum. November 24, 1993 NJDEP Letter - NFA for the thermally treated soil (page 1, section 1.A). February 22, 1995 NJDEP Letter - NG further soil investigation required. IGW exceedances to be addressed by ongoing groundwater investigation (page 1, #2). June 1, 2009 Amendment to SRI # 3 and RAWP - Pursuant to NJDEP request (4/28/2009 NOD	Yes	Proposed remediation for AEC 5 completed. Additional remediation needed for this area of the site is being addressed as Building 31/32 (Row 40)	Closed
							Groundwater	Groundwater issues associated with the soil contamination above IGW standards mentioned in the 2/22/1995 NJDEP Letter are currently being addressed under Building 31/32 (See Row 40).			
							Air (Vapor Intrusion)	Site-wide VI Investigation performed from 2007 - 2013. No Further VI investigation is needed. (See Row 42)			
							Ecological (Surface Water, Sediment)	Ecological impacts were evaluated for the entire site rather than AOC-by-AOC and the results are discussed separately below. (See Row 41)			

Active Under LSRP Program?	RI Complete Supporting Documentation
Νο	March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1) February 8, 1991 NJDEP Letter (Document 2) August 30, 1994 NJDEP Letter (Document 3) November 24, 1993 NJDEP Letter (Document 4) February 22, 1995 NJDEP Letter (Document 5) June 16, 2009 NJDEP Letter (Document 6)

of (r and onse	of Concern, and Emergency ase Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Rece	eptors	Environmental Media to be Addressed by Rl	Current Status / Outcome	RI Complete?	Remediation Complete?	Regulatory Status	Active Under LSRP Program?	RI Complete Supporting Documentation
					Existing	Potential							1
5,00 jel C ka A Figu	,000 Gallon #2 I Oil UST a Area 6) igure 1)	Soil Groundwater	VOCs BNs	Direct Contact Groundwater Surface Water	Existing	Same as Existing	Soil	 March 30, 1987 ECRA Sampling Results (Phase I) - TPHC exceeded ECRA guidelines (page 51, Table 2) in soil boring 601. October 1990 Additional ECRA Sampling Results and Revised Cleanup Plan - Soil boring 603 exceeded ECRA guidelines for BNs in a surface sample. Intermediate and deeper samples were below ECRA guidelines for BNs and VOCs. February 8, 1991 NJDEP Letter - NJDEP requests additional sampling for BNs (page 4, section II.B.4.a). May 22, 1991 Progress Report - The additional BN sampling soil boring 603 demonstrated a decreasing gradient and that the BN impacts were due to Historic Fill. October 31, 1991 NJDEP Letter - NFA approved (page 2, section II.B.1). March 30, 1993 NJDEP Letter - NFA rescinded pending comparison of analytical results to 1994 criteria (page 2, section I.C). June 28, 1993 Textron Technical Response Letter - Textron compared the previous sample results to the 1994 criteria. November 24, 1993 NJDEP Letter - NFA approved (page 1, section I.A). February 22, 1995 NJDEP Letter - NFA approved (page 1, section I.A). February 24, 1996 NJDEP Letter - NA parproved (page 1, section I.A). February 24, 1996 NJDEP Letter - NA parproved (page 1, section I.A). February 24, 1996 NJDEP Letter - NJDEP does not recommend additional sampling of Historic Fill. Investigation of the Historic Fill is required. Existing data may be used, at least in part. December 9, 1996 NJDEP Letter - NJDEP does not recommend additional sampling of Historic Fill but NFA for BNs associated with Historic Fill may not be approved without a Deed Restriction (page 1, section 1). May 6, 1997 NJDEP Letter - NJDEP does not recommend additional sampling of Historic Fill but NFA for BNs associated with MIStandard. Several PAHs present in Historic Fill average due the 2008 standards by more than 1 OM. EC are still effective.	Yes	Deed Notice will be filed and engineering controls will be maintained (Row 43)	Closed / RA Permit needed	Νο	March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1) February 8, 1991 NJDEP Letter (Document 2) October 31, 1991 NJDEP Letter (Document 7) November 24, 1993 NJDEP Letter (Document 4) February 2, 1995 NJDEP Letter (Document 5) December 9, 1996 NJDEP Letter (Document 10) October 29, 2010 Remedial Investigation Report Form and Comments (Document 11) April 7, 1994 NJDEP Letter (Document 13)
							Groundwater Air (Vapor Intrusion) Ecological	total VOCs. **Site-wide groundwater investigation results are covered in Row 36).** January 1994 Progress Report - Monitoring well MW-11 was removed during the soils remediation and re-installed. Following re-installation, VOCs were not detected in groundwater samples four consecutive sampling events. April 7, 1994 NJDEP Letter - Approval to suspend sampling of MW-11 (page 2, #5). Site-wide VI Investigation performed from 2007 - 2013. No Further VI investigation is needed. (See Row 42) Ecological impacts were evaluated for the entire site rather than AOC-by-AOC					
							Air (Vapor Intrusion) Ecological (Surface Water, Sediment)	 #9). Site-wide VI Investigation performed from 2007 - 2013. investigation is needed. (See Row 42) Ecological impacts were evaluated for the entire site ratt and the results are discussed separately below. (See R 	No Further VI ner than AOC-by-AOC ow 41)	No Further VI rer than AOC-by-AOC ow 41)	No Further VI her than AOC-by-AOC ow 41)	No Further VI her than AOC-by-AOC ow 41)	No Further VI er than AOC-by-AOC ow 41)

Row Number	Area of Concern, Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Rece	eptors	Environmental Media to be Addressed by RI	onmental ilia to be essed by RI		olete? Remediation Complete?	Regulatory Status	Active Under LSRP Program?	RI Complete Supporting Documentation	
					Existing	Potential								
7	AEC 7 - Truck Loading Area, South Side of Tank Farm (aka Area 7) (Figure 1)	Soil	VOCs	Direct Contact	Land Use Ecological	Same as Existing	Soil	 March 30, 1987 ECRA Sampling Results (Phase I) - VOCs exceeded ECRA guidelines (page 51, Table 2) in soil boring 701. Down gradient boring MW-8 had total VOCs in soil samples below ECRA guidelines. February 8, 1991 NJDEP Letter - NJDEP approval of Revised Cleanup Plan (including cleanup levels). July 1992 Final Report on Soils Remediation - LTTA remediation performed to remediate VOC impacts. To address potential data gaps in the site characterization, soil was excavated vertically down to the water table and horizontally until post excavation samples were below the cleanup levels (2/k/1991 NJDEP Letter, page 2, section II). 475 cubic yards of soil were excavated, treated and replaced. All post-remediation samples were below the cleanup levels and the 1994 health based cleanup criteria. March 30, 1993 NJDEP Letter - NFA approved (page 2, section I.B). November 24, 1993 NJDEP Letter - NFA for the thermally treated soil (page 1, section 1.A). June 1, 2009 Amendment to SRI # 3 and RAWP - Pursuant to NJDEP request (4/28/2009 NOD Letter) Textron compared the remaining soil contaminant concentrations are below the 2008 standards or were not detected. EIC are still effective. NG turther action is needed. June 16, 2009 NJDEP Letter - NJDEP Approval of 6/1/09 Amendment to SRI # 3 and RAWP. 	Yes	Yes	Closed / No Further Action	Νο	March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1) February 8, 1991 NJDEP Letter (Document 2) March 30, 1993 NJDEP Letter (Document 7) November 24, 1993 NJDEP Letter (Document 4) June 16, 2009 NJDEP Letter (Document 6)	
								Groundwater	March 30, 1987 ECRA Sampling Results (Phase I) - MW-8 installed down gradient to address potential groundwater impacts. No VOCs detected during Phase I sampling. June 14, 1988 Phase II ECRA Sampling Results - VOCs were below ECRA guidelines in groundwater samples. ** <u>Site-wide groundwater investigation results are covered in Row 36)</u> .** Site-wide VI Investigation performed from 2007 - 2013. No Further VI					
							(Vapor Intrusion) Ecological (Surface Water,	Ecological impacts were evaluated for the entire site rather than AOC-by-AOC and the results are discussed separately below. (See Row 41)						
8	AEC 8 - Two 3,000 Gallon ## Fuel OII USTs (partially buried) (aka Area 8, currently referred to as AOC 8) (Figure 1)	Soil Groundwater	BNs	Direct Contact Groundwater Surface Water Vapor Intrusion	Land Use Ecological Vapor Intrusion	Same as Existing	Soil	March 30, 1987 ECRA Sampling Results (Phase I) - TPH and PAHs exceeded ECRA guidelines (page 51, Table 2) in soil borings 801-803 February 8, 1991 NJDEP Letter - NJDEP approval of Revised Cleanup Plan (including cleanup levels). July 1992 Final Report on Soils Remediation - LTTA remediation performed to remediate B/N impacts. To address potential data gaps in the site characterization, soil was excavated vertically down to the water table and horizontally until post excavated vertically down to the water table and horizontally until post excavation samples were below the cleanup levels (2/8/1991 NJDEP Letter, page 2, section II). 32 cubic yards of soil were excavated, treated and replaced. All post-remediation samples were below the cleanup levels and the 1994 health based cleanup criteria. March 30, 1993 NJDEP Letter - NFA approved (page 2, section I.B). November 24, 1993 NJDEP Letter - NFA for the thermally treated soil (page 1, section I.A). February 22, 1995 NJDEP Letter - New data obtained following Reichhold removal of the 2 USTs indicated TPHCs in exceedance of the 1994 cleanup criteria. Textron is responsible (page 1, second paragraph). ** <u>Ongoing/current soil issues have been addressed under the AOC</u> entitled "AOC 8". see Row 37.**	Yes	Proposed remediation for AEC 8 completed. Additional remediation needed for this area of the site is being addressed as AOC 8 (Row 37)	Open (currently addressed as AOC 8, see Row 37)	No	March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1) February 8, 1991 NJDEP Letter (Document 2) March 30, 1993 NJDEP Letter (Document 7) November 24, 1993 NJDEP Letter (Document 4) February 22, 1995 NJDEP Letter (Document 5)	
							Groundwater Air	Groundwater issues associated with this area are currently being addressed under AOC 8 (See Row 37). Site-wide VI Investigation performed from 2007 - 2013. No Further VI						
							Ecological (Surface Water, Sediment)	Ecological impacts were evaluated for the entire site rather than AOC-by-AOC and the results are discussed separately below. (See Row 41)	c					

Row Number	Area of Concern, Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Rece	eptors	Environmental Media to be Addressed by RI	Current Status / Outcome	RI Complete?	Remediation Complete?	Regulatory Status	Active Under LSRP Program?	RI Complete Supporting Documentation
					Existing	Potential							
9	AEC 9 - Contamination Below Building #16 (aka Area 9, Limited Area of Potential Discharge of Material Through Hole in Building Floor) (Figure 1)	Soil	VOCs BNs	Direct Contact	Land Use Ecological	Same as Existing	Soil	 March 30, 1987 ECRA Sampling Results (Phase I) - Resinous material sampled from boring 901 contained toluene in levels that exceeded ECRA guidelines (page 51, Table 2). October 1990 Additional ECRA Sampling Results and Revised Cleanup Plan - Four additional borings were completed and surface and sub-surface soil samples were collected. Results indicated B/Ns slightly exceeded ECRA guidelines in one sample. VOCs were not detected above trace levels in any sample. February 8, 1991 NJDEP Letter - NJDEP approval of Revised Cleanup Plan (including cleanup levels). July 1992 Final Report on Soils Remediation - LTTA remediation performed to address VOC impacts. To address potential data gaps in the site characterization, soil was excavated vertically down to the water table and horizontally until post excavation samples were below the cleanup levels (28/1991 NJDEP Letter - NFA eproved (page 2, section I.B). November 24, 1993 NJDEP Letter - NFA for the thermally treated soil (page 1, section I.A). June 1, 2009 Amendment to SRI # 3 and RAWP - Pursuant to NJDEP request (4/28/2009 NOD Letter) Textron compared the remaining soil concentrations were found to be within 1 OM of the 2008 standards. EIC were found to be still effective. No further action is needed. June 16, 2009 NJDEP Letter - NJDEP Approval of 6/1/09 Amendment to SRI # 3 and RAWP. 	Yes	Yes	Closed / No Further Action	No	March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1) February 8, 1991 NJDEP Letter (Document 2) March 30, 1993 NJDEP Letter (Document 7) November 24, 1993 NJDEP Letter (Document 4) June 16, 2009 NJDEP Letter (Document 6)
							Groundwater Air (Vapor Intrusion)	This area is next to AOC 8 and groundwater in the area is being addressed under AOC 8 (See Row 37). Site-wide VI Investigation performed from 2007 - 2013. No Further VI investigation is needed. (See Row 42)					
							Ecological (Surface Water, Sediment)	Ecological impacts were evaluated for the entire site rather than AOC-by-AOC and the results are discussed separately below. (See Row 41)					

Row Number	Area of Concern, Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Rece	eptors	Environmental Media to be Addressed by RI	Current Status / Outcome	RI Complete?	Remediation Complete?	Regulatory Status
	1				Existina	Potential	1			1	1
10	AEC 10 - Raw Material Storage Area (aka Area 10) (Figure 1)	Soil	TPHC BNs VOCs	Direct Contact	Land Use Ecological	Same as Existing	Soil	 March 30, 1987 ECRA Sampling Results (Phase I) - Two soil borings (1001 & MW-3) were sampled for TPH and VCCs. No VOCs exceeded the ECRA guidelines (page 51, Table 2). TPH exceeded ECRA guidelines but concentrations decreased with depth. October 1990 Additional ECRA Sampling Results and Revised Cleanup Plan - Carcinogenic B/Ns only slightly exceeded the ECRA guidelines. May 22, 1991 Progress Report - Additional follow-up sampling (discussed in 2/8/1991 NJDEP letter, page 4, section II.B.4.a) demonstrated the BNs were due to Historic Fill. October 31, 1991 NJDEP Letter - NFA approved (page 2, section III.B.1). March 30, 1993 NJDEP Letter - NFA approved (page 2, section III.B.1). March 30, 1993 Textron Technical Response Letter - Textron compared the previous sample results to 1994 criteria (page 2, section 1.C). June 28, 1993 Textron Technical Response Letter - Textron compared the previous sample results to 1994 criteria. November 24, 1993 NJDEP Letter - NJFA approved (page 1, section 1.A). January 24, 1996 NJDEP Letter - NJFA approved (page 1, section 1.A). January 24, 1996 NJDEP Letter - NJFA approved (page 1, section 1.A). January 24, 1996 NJDEP Letter - NJFA approved (page 1, section 1.A). January 24, 1996 NJDEP Letter - NJDEP does not recommend additional sampling of Historic Fill but NFA for B/Ns associated with Historic Fill may not be approved without a Deed Restriction (page 1, section 1). May 6, 1997 NJDEP Letter - B/N soil issues deferred pending Deed Restriction negotiations between Textron and Reichhold. June 1, 2009 Amendment to SRI # 3 and RAWP - Pursuant to NJDEP request (A/28/2009 NOD Letter) Textron compared the remaining soil contaminant concentrations to the June 2, 2008 Remediation Standards. Several PAHs present in Historic Fill exceed the 2008 standards by more than 1 OM. EIC are still defictive. 	Yes	Deed Notice will be filed and engineering controls will be maintained (Row 43)	Closed / RA Permi needed
							Groundwater	March 30, 1987 ECRA Sampling Results (Phase I) - A groundwater sample from MW-3 contained no TPH or VOCs. June 14, 1988 Phase II ECRA Sampling Results - All analytes (including TPH and VOCs) were not detected in groundwater samples from MW-3. **Site-wide groundwater investigation results are covered in Row 36).**			
							Air (Vapor Intrusion	Site-wide VI Investigation performed from 2007 - 2013. No Further VI investigation is needed. (See Row 42)]		
							Ecological (Surface Water, Sediment)	Ecological impacts were evaluated for the entire site rather than AOC-by-AOC and the results are discussed separately below. (See Row 41)			

Active Under LSRP Program?	RI Complete Supporting Documentation
Νο	March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1) February 8, 1991 NJDEP Letter (Document 2) October 31, 1991 NJDEP Letter (Document 7) November 24, 1993 NJDEP Letter (Document 7) December 9, 1996 NJDEP Letter (Document 10) June 16, 2009 NJDEP Letter (Document 6) October 29, 2010 Remedial Investigation Report Form and Comments (Document 11)

Row Number	Area of Concern, Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Rece	eptors	Environmental Media to be Addressed by Rl	Current Status / Outcome	RI Complete?	Remediation Complete?	Regulatory Status	Active Under LSRP Program?	RI Complete Supporting Documentation
					Existing	Potential	74						
	AEC 11 - Former ASTs on		TDU	Direct Contact			Soil	 March 30, 1987 ECRA Sampling Results (Phase I) - One soil boring completed (MW-5). Soil samples were analyzed for TPH and VOCs. Only TPH exceeded the ECRA guidelines (page 51, Table 2). February 8, 1991 NJDEP Letter - NFA approved (page 3, section II.B.1). March 30, 1993 NJDEP Letter - NFA rescinded pending comparison of data to 1994 cleanup criteria (page 2, section I.C). June 28, 1993 Textron Technical Response Letter - Data collected from down gradient wells indicate no environmental impact resulted from this area. November 24, 1993 NJDEP Letter - NFA approved (page 1, section I.A). 					March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1)
11	Unpaved Area (aka Area 11)	Soil	VOCs	Groundwater	Ecological	Same as Existing			Yes	Required	Action	No	February 8, 1991 NJDEP Letter (Document 2)
	(Figure 1)			Surface Water	Looigida		Groundwater	June 14, 1988 Phase II ECRA Sampling Results - Groundwater samples from MW-5 were below ECRA guidelines for all analytes (including TPH and VOCs). ** <u>Site-wide groundwater investigation results are covered in Row 36).</u> **					March 30, 1993 NJDEP Letter (Document /) November 24, 1993 NJDEP Letter (Document 4)
							Air (Vapor Intrusion	Site-wide VI Investigation performed from 2007 - 2013. No Further VI investigation is needed. (See Row 42)					
							Ecological (Surface Water, Sediment)	Ecological impacts were evaluated for the entire site rather than AOC-by-AOC and the results are discussed separately below. (See Row 41)					
12	AEC 12 - Building on Stilts with Potential for Discharge to Soils (Building #4) (aka Area 12) (Figure 1)	Soil	TPH VOCs BNs	Direct Contact Groundwater Surface Water	Land Use Ecological	Same as Existing	Soil	 March 30, 1987 ECRA Sampling Results (Phase I) - Three soil samples were collected from beneath Building 4 near floor drains. TPH and VOCs exceeded ECRA guidelines (page 51, Table 2) in all three locations. One soil boring was completed outside of the building (MW-5). Soil samples from MW-5 were analyzed for TPH and VOCs. Only TPH exceeded the ECRA guidelines. October 1990 Additional ECRA Sampling Results and Revised Cleanup Plan - Carcinogenic B/Ns exceeded ECRA guidelines in a soil sample. February 8, 1991 NJDEP Letter - NJDEP approval of Revised Cleanup Plan - Carcinogenic B/Ns exceeded ECRA guidelines in a soil sample. February 8, 1991 NJDEP Letter - NJDEP approval of Revised Cleanup Plan (including cleanup levels). July 1992 Final Report on Soils Remediation - <u>AEC 12</u> - LTTA remediation performed to remediate B/N impacts. 602 cubic yards of soil was excavated, treated and replaced. No post-remediation samples were collected since the excavation extended to pre-determined limits (building footprint). <u>AEC 12S</u> - Not identified previously, but a soil sample collected south of Building 4 contained VOCs above the NJDEP approved cleanup level (2/8/91) and the surrounding area was remediated. 27 cubic yards of soil was excavated and treated via LTTA. Post-remediation samples were below the approved cleanup levels and the 1994 health based cleanup criteria. March 30, 1993 NJDEP Letter - NFA approved for AEC 12 was fully remediated. November 24, 1993 NJDEP Letter - NFA approved for AEC 12 uand the thermality treated soil (page 1, section 1.A). June 1, 2009 Amendment to SRI # 3 and RAWP - Pursuant to NJDEP request (4/28/2009 NOD Letter) Textron compared the remaining soil contaminant concentrations were found to be below the 2008 standards. Remaining soil concentrations to the June 2, 2008 Remediation Standards. Remaining soil concentrations to the June 2, 2008 Remediation Standards. Remaining soil concentrations were found	Yes	Yes	Closed / No Further Action	Νο	March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1) February 8, 1991 NJDEP Letter (Document 2) March 30, 1993 NJDEP Letter (Document 7) November 24, 1993 NJDEP Letter (Document 4) June 16, 2009 NJDEP Letter (Document 6)
							Groundwater	June 14, 1988 Phase II ECRA Sampling Results - Groundwater samples from MW-5 were below ECRA guidelines for all analytes (including TPH and VOCs). ** <u>Site-wide groundwater investigation results are covered in Row 36).</u> ** Site-wide VI Investigation performed from 2007 - 2013. No Further VI					
							(Vapor Intrusion	investigation is needed. (See Row 42)	r VI OC-by-AOC				
							(Surface Water, Sediment)	Ecological impacts were evaluated for the entire site rather than AOC-by-AOC and the results are discussed separately below. (See Row 41)					

ĺ	Row Number	Area of Concern, Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Rece	eptors	Environmental Media to be Addressed by Rl	Current Status / Outcome	RI Complete?	Remediation Complete?	Regulatory Status
ľ						Existing	Potential	70				
	13	AEC 13 - Former AST in Unpaved Area (aka Area 13) (Figure 1)	Soil	TPHC	Direct Contact	Land Use Ecological	Same as Existing	Soil	 March 30, 1987 ECRA Sampling Results (Phase I) - Three soil borings (1301: 1303) were sampled for TPH and VOCs. TPH exceeded ECRA guidelines (page 51, Table 2) in all three borings. VOCs were below ECRA guidelines. October 1990 Additional ECRA Sampling Results and Revised Cleanup Plan - Two surface soil samples were analyzed for BNs. BNs did not exceed ECRA guidelines. February 8, 1991 NJDEP Letter - NFA approved (page 3, section II.B.1). March 30, 1993 NJDEP Letter - NFA rescinded pending comparison of the soil data to the 1994 criteria (page 2, section I.C). June 28, 1993 Textron Technical Response Letter - Textron compared the previous sample results to the 1994 criteria. November 24, 1993 NJDEP Letter - NFA approved (page 1, section I.A). June 1, 2009 Amendment to SRI # 3 and RAWP - Pursuant to NJDEP request (4/28/2009 NOD Letter) Textron compared the remaining soil concentrations to the 1.0 are 2, 2008 Remediation Standards. EIC were found to be still effective. No further action is needed. June 16, 2009 NJDEP Letter - NJDEP Approval of 6/1/09 Amendment to SRI # 3 and RAWP. 	Yes	Remediation Not Required	Closed / No Further Action
								Groundwater	Site-wide groundwater was addressed during the Phase I and Phase II investigations and with long term monitoring (See Row 36).			
								Air (Vapor Intrusion Ecological	Site-wide VI Investigation performed from 2007 - 2013. No Further VI investigation is needed. (See Row 42)			
								(Surface Water, Sediment)	Ecological impacts were evaluated for the entire site rather than AOC-by-AOC and the results are discussed separately below. (See Row 41) March 30. 1987 FCRA Sampling Results (Phase 1). Three soil borings (1401)			
	14	AEC 14 - Former AST in Unpaved Area (aka Area 14) (Figure 1)	Soil	TPH VOCs	Direct Contact	Land Use Ecological	Same as Existing	Soil	1403) were sampled for TPH and VOCs. TPH and VOCs both exceeded ECRA guidelines (page 51, Table 2). October 1990 Additional ECRA Sampling Results and Revised Cleanup Plan - Additional soil samples were collected and analyzed for BNs. BNs were below ECRA guidelines in both samples collected. February 6, 1991 NJDEP Letter - NJDEP approval of Revised Cleanup Plan (including cleanup levels). July 1992 Final Report on Soils Remediation - LTTA remediation performed to remediate VOC impacts. To address potential data gaps in the sile characterization, soil was excavated vertically down to the water table and horizontally until post excavation samples were below the cleanup levels (2/8/1991 NJDEP Letter, page 2, section II). 871 cubic yards of soil excavated, treated and replaced. Post-remediation samples were below the cleanup levels (and the 1994 health based cleanup criteria. March 30, 1993 NJDEP Letter - NFA approved (page 2, section I.B). November 24, 1993 NJDEP Letter - NFA for the thermally treated soil (page 1, section I.A). June 1, 2009 Amendment to SRI # 3 and RAWP - Pursuant to NJDEP request (4/28/2009 NOD Letter) Textron compared the remaining soil contaminant concentrations were found to be below the 2008 standards or not detected. EIC were found to be still effective. No further action in seeded. June 16, 2009 NJDEP Letter - NJDEP Approval of 6/1/09 Amendment to SRI # 3 and RAWP.	Yes	Yes	Closed / No Further Action
								Air (Vapor Intrusion	Site-wide VI Investigation performed from 2007 - 2013. No Further VI investigation is needed. (See Row 42)			
								(Surface Water, Sediment)	Ecological impacts were evaluated for the entire site rather than AOC-by-AOC and the results are discussed separately below. (See Row 41)			

Active Under LSRP Program?	RI Complete Supporting Documentation
Νο	March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1) February 8, 1991 NJDEP Letter (Document 2) March 30, 1993 NJDEP Letter (Document 7) November 24, 1993 NJDEP Letter (Document 4) June 16, 2009 NJDEP Letter (Document 6)
No	March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1) February 8, 1991 NJDEP Letter (Document 2) March 30, 1993 NJDEP Letter (Document 7) November 24, 1993 NJDEP Letter (Document 4) June 16, 2009 NJDEP Letter (Document 6)

Row Number	Area of Concern, Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Rece	ptors	Environmental Media to be Addressed by RI	Current Status / Outcome	RI Complete?	Remediation Complete?	Regulatory Status	Active Under LSRP Program?	RI Complete Supporting Documentation
					Existina	Potential	70						
15	AEC 15 - Former Drum Storage Area (unpaved) (aka Area 15) (Figure 1)	Soli	TPH BNs Lead VOCs	Direct Contact	Land Use Ecological	Same as Existing	Soil Groundwater Air (Vapor Intrusion) Ecological (Surface Water, Sediment)	March 30, 1987 ECRA Sampling Results (Phase I) - Three soil borings were sampled for TPH and VOCs. Two samples exceeded the ECRA guidelines (page 51, Table 2) for TPH, but were below ECRA for VOCs. The third sample slightly exceeded ECRA for VOCs, but was below ECRA for COCs. The third sample slightly exceeded ECRA action levels. Zinc was below 1934 health based cleanup criteria, lead exceeded the 1934 criteria but was within 1 OM. January 30, 1989 NDEP Letter - Metal contamination is associated with fill material. Remediation of metal contamination is not required (page 1, section 1.1). Deed Notice may be required. April 3, 1990 NDEP Letter - NJDEP will require a deed restriction for metals contamination. September 10, 1990 - Meeting between NJDEP and Textron/Environ to discuss the need for a deed restriction for metals associated with fill material and the need for a deed restriction associated with the fill material and the need for a deed restriction associated with the fill material arsenic is to be performed. If those results are not materially different from the Phase II results, then no remediation or deed restriction is needed. October 1990 Additional ECRA Sampling Results and Revised Cleanup Plan - Four additional soil samples were analyzed for BNs. Carcinogenic BNs exceeded the ECRA guidelines in only one sample. Februar 9, 1911 NJDEP Letter - NJDEP approval of Revised Cleanup Plan (including cleanup levels). The proposed additional sampling for lead and arsenic is acceptable (page 5, section II.8). May 22, 1991 Cleanup Plan Progress Report - The results of the additional lead and arsenic sampling were not waterially different from the Phase II results. No further action (including a deed notice) is required. October 1990 Additional ECRA Sampling Were not materially different from the Phase II results. No further action (including a deed notice) is required. October 31, 1991 NJDEP Letter - NFA for the additional lead and arsenic sampling were to additional samples were below the cleanup levels (2/8/1	Yes	Yes	Closed / No Further Action	No	March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1) January 30, 1989 NJDEP Letter (Document 12) February 8, 1991 NJDEP Letter (Document 2) October 31, 1991 NJDEP Letter (Document 7) November 24, 1993 NJDEP Letter (Document 4) February 22, 1995 NJDEP Letter (Document 5) June 16, 2009 NJDEP Letter (Document 6)

Row Number	Area of Concern, Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Rece	eptors	Environmental Media to be Addressed by Rl	Current Status / Outcome	RI Complete?	Remediation Complete?	Regulatory Status
					Existing	Potential	1				1
16	AEC 16 - Former Drum Storage Area (unpaved) (aka Area 16) (Figure 1)	Soil	TPH VOCs	Direct Contact	Land Use Ecological	Same as Existing	Soil	March 30, 1987 ECRA Sampling Results (Phase I) - Three soil samples were analyzed for TPH and VOCs. Both TPH and VOCs exceed the ECRA guidelines (page 51, Table 2) in all three samples. October 1990 Additional ECRA Sampling Results and Revised Cleanup Plan - Additional surface and subsurface samples were collected and analyzed for BNs and VOCs. Both analytes were below ECRA in the surface sample. Only VOCs exceeded ECRA in the sub-surface sample. February 8, 1991 NJDEP Letter - NJDEP approval of Revised Cleanup Plan (including cleanup levels). July 1992 Final Report on Soils Remediation - LTTA remediation performed to remediate VOC impacts. To address potential data gaps in the site characterization, soil was excavated vertically down to the water table and horizontally until post excavation samples were below the cleanup levels (2/8/1991 NJDEP Letter, page 2, section II). 189 cubic yards were excavated, treated and replaced. Post-remediation samples were below the cleanup levels and the 1994 health based cleanup criteria. March 30, 1993 NJDEP Letter - NFA approved (page 2, section I.B). November 24, 1993 NJDEP Letter - NFA approved (page 2, section I.B). June 1, 2009 Amendment to SRI # 3 and RAWP - Pursuant to NJDEP request (4/28/2009 NOD Letter) Textron compared the remaining soil contaminant concentrations were found to be sollow the 2008 standards or non-detect. EIC were found to be still effective. No further action is needed. June 16, 2009 NJDEP Letter - NJDEP Approval of 6/1/09 Amendment to SRI # 3 and RAWP.	Yes	Yes	Closed / No Further Action
							Groundwater	Site-wide groundwater was addressed during the Phase I and Phase II investigations and with long term monitoring (See Row 36). Monitoring wells included in the monitoring program were located down gradient of this AOC.			
							Air (Vapor Intrusion	Site-wide VI Investigation performed from 2007 - 2013. No Further VI investigation is needed. (See Row 42)			
							Ecological (Surface Water, Sediment)	Ecological impacts were evaluated for the entire site rather than AOC-by-AOC and the results are discussed separately below. (See Row 41)			

Active Under LSRP Program?	RI Complete Supporting Documentation
Νο	March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1) February 8, 1991 NJDEP Letter (Document 2) March 30, 1993 NJDEP Letter (Document 7) November 24, 1993 NJDEP Letter (Document 4) June 16, 2009 NJDEP Letter (Document 6)

Case Inventory Document

RI Complete Supporting Documentation Form Former Spencer-Kellogg Facility 400 Doremus Avenue

Newark, NJ Area of Concern. Row Contaminants of Media to be Remediation eptor and Emerge Impacted Media Exposure Route Current Status / Outcome RI Complete? Regulatory Status Receptors Concern Addressed by Complete? umb Response Tracking RI Existing Potential Irch 30, 1987 ECRA Sampling Results (Phase I) - Three soil borings we mpled for TPH and VOCs. Additionally, a monitoring well (MW-10) was stalled and soil samples were analyzed for TPH, VOCs, BNs and AEs. TPH vas detected above ECRA guidelines (page 51, Table 2) in four samples. VOCs and BNs were only detected above ECRA guidelines in soil samples ollected from MW-10, however the results indicated the concentrations creased with depth. June 14, 1988 Phase II ECRA Sampling Results - Metals (lead, mercury, zinc, copper and antimony) exceeded ECRA guidelines in soil samples. All but lead were below the 1994 health based cleanup criteria, lead exceeded the 1994 criteria but was within 1 OM. lanuary 30, 1989 NJDEP Letter - Metal contamination is associated with fill aterial. Remediation of metal contamination is not required (page 1, section 11) Deed Notice may be required April 3, 1990 NJDEP Letter - NJDEP will require a deed restriction for metals ptember 10, 1990 - Meeting between NJDEP and Textron/Environ to iscuss the need for a deed restriction for metals associated with fill material. eptember 14, 1990 Environ Letter - Follow up to the September 10 scussion regarding the metal contamination associated with the fill material and the need for a deed restriction. Additional soil sampling for lead and senic is to be performed. If those results are not materially different from the hase II results, then no remediation or deed restriction is needed. October 1990 Additional ECRA Sampling Results and Revised Cleanup Plan - An additional soil boring (M2401) was completed and sampled for BNs and VOCs. Carcinogenic B/Ns exceeded ECRA guidelines in one sample. February 8, 1991 NJDEP Letter - NJDEP approval of Revised Cleanup Plan ncluding cleanup levels). The proposed additional sampling for lead and senic is acceptable (page 5, section II.B.6). May 22, 1991 Cleanup Plan Progress Report - The results of the additional ad and arsenic sampling were not materially different from the Phase II Soil esults. No further action (including a deed notice) is required. October 31, 1991 NJDEP Letter - NFA for the additional lead and arsenic sampling locations is approved (pages 7-8). July 1992 Final Report on Soils Remediation - LTTA remediation performed ediate VOC impacts (B/N impacts addressed as AOC entitled "MW-10/Boring M2401 area". see Row 35). To address potential data gaps in the site characterization, soil was excavated vertically down to the water table and orizontally until post excavation samples were below the cleanup levels (2/8/1991 NJDEP Letter, page 2, section II). 315 cubic yards were excavated eated and replaced. Post-remediation samples were below the cleanup leve and the 1994 health based cleanup criteria. March 30, 1993 NJDEP Letter - NFA approved (page 2, section I.B). ovember 24, 1993 NJDEP Letter - NFA for the thermally treated soil (page ection I.A). tember 1, 1994 Skadden, Arps, Slate, Meagher & Flom Response Letter - Requests NFA for remaining lead. NFA was previously given and the AEC 17 - Former Drum VOCs Direct Contact new lead cleanup criteria does not differ from the previously approved cleanup Storage Area (unpaved Soil Closed / No Furthe Lead TPH Land Use Same as 17 Yes Groundwater evels (approved in 2/8/1991 NJDEP letter) by more than an order of Yes (aka Area 17) Groundwater Ecological Existina Action Surface Water agnit (Figure 1) BNs ebruary 22, 1995 NJDEP Letter - NFA for remaining lead approved (page 1 June 1, 2009 Amendment to SRI # 3 and RAWP - Pursuant to NJDEP request (4/28/2009 NOD Letter) Textron compared the remaining soil ontaminant concentrations to the June 2, 2008 Remediation Standards. emaining soil concentrations were found to be below the 2008 standards or on-detect. FIC were found to be still effective. No further action is needed une 16, 2009 NJDEP Letter - NJDEP Approval of 6/1/09 Amendment to SRI and RAWP. March 30, 1987 ECRA Sampling Results (Phase I) - Well MW-10 was installed to address shallow groundwater contamination. Concentrations of VOCs exceeded ECRA guidelines. June 14, 1988 Phase II ECRA Sampling Results - Groundwater samples fro MW-10 exceeded ECRA for VOCs and lead. An additional sample was ollected from MW-10 in March 1988 and split for filtered/unfiltered metals nalysis. The unfiltered results were similar to the Phase II results. However the filtered result did not contain lead above the ECRA guidelines. These results indicate the lead in the Phase II sample does not represent dissolved ad content, rather it is associated with fine particular sediment present in the mple Well MW-24 was installed to address potential contamination in the deeper aquifer. Groundwater samples from MW-24 were below ECRA guidelines for Groundwate all analyses (including VOCs and TPH). anuary 30, 1989 NJDEP Letter - NJDEP requires quarterly groundwater monitoring of certain monitoring wells (including MW-10) to continue for one year after the soil remediation is completed. The results of the monitoring will lictate whether additional groundwater sampling and/or remediation is warranted (page 2, #7). January 1994 Progress Report - Concentrations of VOCs in groundwater samples have decreased or were not detected one year after the soil nediation was completed. No further groundwater monitoring proposed April 7, 1994 NJDEP Letter - No further sampling of selected MWs (including /W-10 and down gradient wells) is necessary (page 2, #4) Air Site-wide VI Investigation performed from 2007 - 2013. No Further VI Vapor Intrusio vestigation is needed. (See Row 42) Ecological cological impacts were evaluated for the entire site rather than AOC-by-AOC (Surface Water and the results are discussed separately below. (See Row 41)

Sediment

Active Under LSRP Program?	RI Complete Supporting Documentation
Νο	March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1) January 30, 1989 NJDEP Letter (Document 2) Cotober 31, 1991 NJDEP Letter (Document 2) March 30, 1993 NJDEP Letter (Document 7) November 24, 1993 NJDEP Letter (Document 5) June 16, 2009 NJDEP Letter (Document 6) April 7, 1994 NJDEP Letter (Document 1)

Row Number	Area of Concern, Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Receptors		Environmental Media to be Addressed by	Current Status / Outcome	RI Complete?	Remediation Complete?	Regulatory Status
	neopence maining				Existing	Potential	RI				
18	AEC 18 - Fuel Oil Unloading Area (unpaved) (aka Area 18) (Figure 1)	Soil	TPH BNs Lead VOCs	Direct Contact	Land Use Ecological	Potential Same as Existing	Soil Soil Groundwater Air (Vapor Intrusion Ecological (Surface Water)	 March 30, 1987 ECRA Sampling Results (Phase I) - TPH exceeded ECRA guidelines (page 51, Table 2) in soil boring 1801. Four metals, including lead, exceed ECRA guidelines in soil samples ofcetted during installation of MM-C. Only lead exceeded the 1994 health based cleanup criteria, but was within 1 OM. Soil samples form MW-6 also exceeded ECRA for TPH and VOCs. Only the deep sample (6-7 feet) exceeded ECRA for BNs. Junary 30, 1998 NJDEP Letter - Netal contamination is not required (page 1, section 11). Deed Notice may be required. April 3, 1990 NJDEP Letter - NJDEP will require a deed restriction for metals contamination. September 10, 1990 - Meeting between NJDEP and Textron/Erwiron to discuss the need for a deed restriction for metals associated with fill material. September 10, 1990 - Meeting between NJDEP and Textron/Erwiron to discuss the need for a deed restriction. Additional soil sampling for lead and arsenic is to be performed. It those results are not materially different from the Phase II results. Inc no removed del the CCRA guidelines in one soil sample. February 8, 1991 NJDEP Letter - NJDEP approval of Revised Cleanup Plan Carcinogenic BNe exceeded the ECRA guidelines in one soil sample. February 8, 1991 NJDEP Letter - NALOPE approval of Revised Cleanup Plan Carcinogenic BNe exceeded the ECRA duideline sin one soil sample. February 8, 1991 NJDEP Letter - NALO (the additional sampling for lead and arsenic sampling were not materially different from the Phase II results. No functional is approved (gage 5.9). July 1992 Final Report on Soils Remediation - LTTA remediation performed to remotate BN IM maters. To address potential data gaps in the site characterization, soil was excavated vertically down to the water table and horizontally unit post excavation (gage 5. section 11). 23 cubic yards were excavated, treated and results. No function Samples or deader section Fill. May 22, 1991 NJDEP Letter - NALO for remaining lead approved (page 1, 2/911 NJD	Yes	Deed Notice will be filed and engineering controls will be maintained (Row 43)	Closed / RA Permit needed

Active Under LSRP Program?	RI Complete Supporting Documentation
Νο	March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1) January 30, 1989 NUDEP Letter (Document 2) October 31, 1991 NUDEP Letter (Document 7) November 24, 1993 NUDEP Letter (Document 7) November 24, 1993 NUDEP Letter (Document 6) December 9, 1996 NUDEP Letter (Document 6) Decomber 9, 1996 NUDEP Letter (Document 6) October 209 NUDEP Letter (D

Row Number	Area of Concern, Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Rec	eptors	Environmental Media to be Addressed by RI	Current Status / Outcome	RI Complete?	Remediation Complete?	Regulatory Status	Active Under LSRP Program?	RI Complete Supporting Documentation
	1				Existing	Potential	1				1		
19	AEC 19 - Solvent Sludge AST Surrounded by Concrete Wall (aka Area 19) (Figure 1)	Soil	TPH VOCs	Direct Contact Groundwater Surface Water	Land Use Ecological	Same as Existing	Soil Groundwater (Vapor Intrusion) Ecological (Surface Water, Sediment)	 March 30, 1987 ECRA Sampling Results (Phase I) - TPH & VOCs exceeded ECRA guidelines (page 51, Table 2) in both surface and subsurface soil samples at boring 1901. Soil samples collected during the installation of MW-9 exceeded ECRA guidelines for TPH, BNs and five metals. Although the metals contamination exceeded ECRA, the concentrations were within 1 OM of the 1994 health based cleanup levels. January 30, 1989 NJDEP Letter - Metal contamination is associated with fill material. Remediation of metal contamination is not required (page 1, section 11.) Deed Notice may be required. April 3, 1990 NJDEP Letter - NJDEP will require a deed restriction for metals contamination. September 10, 1990 - Meeting between NJDEP and Textron/Environ to discuss the need for a deed restriction for metals associated with fill material. September 14, 1990 Environ Letter - Follow up to the September 10 discussion regarding the metal contamination associated with the fill material and the need for a deed restriction. Additional soil sampling for lead and arsenic is to be performed. If those results are not materially different from the Phase II results, then no remediation or deed restriction is needed. February 8, 1991 NJDEP Letter - NDEP approval of Revised Cleanup Plan (including cleanup levels). The proposed additional sampling for lead and arsenic is acceptable (page 5, section II.B.6). May 22, 1991 Cleanup Plan Progress Report - The results of the additional lead and arsenic sampling were not materially different from the Phase II results. No threm contamination, soil was excavated vertically down to the water table (2/8/1991 NJDEP Letter - NFA for the additional lead and arsenic sampling uceation soils Remediation - LTTA remediation performed to ranediate VOC impacts. To address potential data gaps in the site characterization, soil was excavated, treated and replaced. March 30, 1993 NJDEP Letter - NFA for the thermally tre	Yes	Yes	Closed / No Further Action	No	March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1) January 30, 1989 NJDEP Letter (Document 2) October 31, 1991 NJDEP Letter (Document 2) March 30, 1993 NJDEP Letter (Document 7) November 24, 1993 NJDEP Letter (Document 4) February 22, 1995 NJDEP Letter (Document 5)

Row Number	Area of Concern, eceptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Rece	eptors	Environmental Media to be Addressed by RI	Current Status / Outcome	RI Complete?	Remediation Complete?	Regulatory Status	Active Under LSRP Program?	RI Complete Supporting Documentation
					Existing	Potential	70						
20 A	EC 20 - Former Gasoline UST (aka Area 20) (Figure 1)	Soil Groundwater	TPH BNs Lead	Direct Contact Groundwater Surface Water	Land Use Ecological	Same as Existing	Soil Groundwater	March 30, 1987 ECRA Sampling Results (Phase I) - Soil samples collected during the installation of MW-9 exceeded ECRA guidelines (page 51, Table 2) for TPH, BNs and five metals. Although the metals contamination exceeded ECRA, the concentrations were within 1 OM of the 1994 health based cleanup levels. January 30, 1989 NJDEP Letter - Metal contamination is associated with fill material. Remediation of metal contamination is not required (page 1, section 11). Deed Notice may be required. April 3, 1990 NJDEP Letter - NFA approved (page 5, #16). Site-wide metals contamination associated with fill material will require a deed notice. September 10, 1990 - Ndeeting between NJDEP and Textron/Erviron to discuss the need for a deed restriction for metals associated with fill material and the need for a deed restriction. Additional soil sampling for lead and arsenic is to be performed. If those results are not materially different from the Phase II results, then no remediation or deed restriction is needed. February 8, 1991 NJDEP Letter - NDEP approval of Revised Cleanup Plan (including cleanup levels). The proposed additional sampling for lead and arsenic is acceptable (page 5, section II.B.6). May 22, 1991 Cleanup Plan Progress Report - The results of the additional lead and arsenic sampling were not materially different from the Phase II results. No further action (including a deed notice) is required. October 31, 1991 NJDEP Letter - NFA for the additional lead and arsenic sampling locations is approved (pages 7-8). March 30, 1993 TAVDEP Letter - April 30, 1990 NFA rescinded pending comparison of data to 1994 cleanup criteria (page 2, section I.C). June 28, 1993 Textron Technical Response Letter - Textron compared the previous sample results to the 1994 health based cleanup criteria. All B/N results were found to be below the 1994 criteria. November 24, 1993 TAVDEP Letter - NFA for remaining lead approved (page 1, #1). June 24, 2090 SNDEP Letter - NFA for remaining lead approved (page 1, #1). June 14, 2009 Amedment to	Yes	Yes	Closed / No Further Action	Νο	March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1) January 30, 1989 NJDEP Letter (Document 12) April 3, 1990 NJDEP Letter (Document 14) February 8, 1991 NJDEP Letter (Document 2) October 31, 1991 NJDEP Letter (Document 7) November 24, 1993 NJDEP Letter (Document 4) February 2, 1995 NJDEP Letter (Document 5) June 16, 2009 NJDEP Letter (Document 6)

N	Row umber	Area of Concern, Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Rece	eptors	Environmental Media to be Addressed by Rl	Current Status / Outcome	RI Complete?	Remediation Complete?	Regulatory Status
						Existing	Potential	- Ni				
	21	AEC 21 - Former AST Farm (unpaved) (aka Area 21) (Figure 1)	Soil	VOCs Lead TPH	Direct Contact Groundwater Surface Water	Land Use Ecological	Same as Existing	Soil	 March 30, 1987 ECRA Sampling Results (Phase I) - Three soil samples exceeded ECRA guidelines (page 51, Table 2) for TPH &VOCs. June 14, 1988 Phase II ECRA Sampling Results - Metals (antimony, arsenic, cadmium, copper, lead, mercury, & zinc) exceed ECRA in soil samples. Cadmium, Arsenic and Lead exceed the 1994 health based cleanup criteria but are within 1 OM. January 30, 1989 NJDEP Letter - Metal contamination is not required (page 1, section 11.). Deed Notice may be required. April 3, 1990 NJDEP Letter - NJDEP will require a deed restriction for metals contamination. September 10, 1990 - Meeting between NJDEP and Textron/Environ to discuss the need for a deed restriction for metals associated with fill material. September 10, 1990 - Meeting between NJDEP and Textron/Environ to discuss the need for a deed restriction. Additional soil sampling for lead and arsenic is to be performed. If those results are not materially different from the Phase II results, then no remediation or deed restriction is needed. October 1990 Additional ECRA Sampling Results and Revised Cleanup Plan - Two additional soil samples were collected and analyzed for BNs and VOCs. Total VOCs exceeded ECRA guidelines and BNs were below the guidelines. February 8, 1991 NJDEP Letter - NJDEP approval of Revised Cleanup Plan (including cleanup levels). The proposed additional sampling for lead and arsenic is acceptable (page 5, section 1I.B.6). May 22, 1991 Cleanup Plan Progress Report - The results of the additional lead and arsenic sampling were not materially different from the Phase II results. No further action (including a deed notice) is required. October 31, 1991 NJDEP Letter - NFA for the additional lead and arsenic sampling locations is approved (pages 7-8). July 1992 Final Report on Soils Remediation - LTTA remediation performed to remediate VOC impacts. To address potential data gap	Yes	Yes	Closed / No Further Action
								Groundwater	June 14, 1988 Phase II ECRA Sampling Results - GW samples collected from well MW-18 only exceeded ECRA levels for lead (VOCs and TPH were below ECRA guidelines). An additional sample was collected in March 1988 and split for filtered/unfiltered metals analysis. The unfiltered results were similar to the Phase II results. However, the filtered result did not contain lead above the ECRA guidelines. These results indicate the lead in the Phase II sample does not represent dissolved lead content, rather it is associated with fine particular sediment present in the sample. ** <u>Site-wide groundwater investigation results are covered in Row 36</u>).**			
								Air (Vapor Intrusion Ecological	Site-wide VI Investigation performed from 2007 - 2013. No Further VI investigation is needed. (See Row 42)	-		
								(Surface Water, Sediment)	and the results are discussed separately below. (See Row 41)			
		AEC 22 - Drums Storage Pad for Hazardous Waste						Soil	March 30, 1987 ECRA Sampling Results (Phase I) - Soil cleaned off of concrete pad and stockpiled for disposal prior to sampling. Soil sample collected from the stockpile exceeded ECRA guidelines for TPH and VOCs. November 24, 1993 NJDEP Letter - NFA approved (page 1, section I.A).			
	22	(aka 1285 Premix Storage Pad, Area 22) (Figure 1)	Soil	VOCs	Direct Contact	Land Use Ecological	Same as Existing	Groundwater	Site-wide groundwater was addressed during the Phase I and Phase II investigations and with long term monitoring (See Row 36).	Yes	Remediation Not Required	Closed / No Further Action
								Air (Vapor Intrusion Ecological	Site-wide VI Investigation performed from 2007 - 2013. No Further VI investigation is needed. (See Row 42)	4		
								(Surface Water, Sediment)	and the results are discussed separately below. (See Row 41)			

/ Status	Active Under LSRP Program?	RI Complete Supporting Documentation
p Further in	Νο	March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1) January 30, 1989 NJDEP Letter (Document 2) October 31, 1991 NJDEP Letter (Document 9) March 30, 1993 NJDEP Letter (Document 7) November 24, 1993 NJDEP Letter (Document 5) June 16, 2009 NJDEP Letter (Document 5)
Further n	No	November 24, 1993 NJDEP Letter (Document 4)

Row Numbe	Area of Concern, Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Rece	Receptors Receptors Receptors Receptors		Current Status / Outcome	RI Complete?	Remediation Complete?	Regulatory Status	Active Under LSRP Program?	RI Complete Supporting Documentation
					Existing	Potential	70						
23	AEC 23 - Loading Area for Hazardous Waste (Building #4) (aka 1285 Premix Loading Area, Area 23) (Figure 1)	Soil	TPH VOCS BNs Lead	Direct Contact	Land Use Ecological	Same as Existing	Soil Groundwater Air (Vapor Intrusion) Ecological (Surface Water, Sediment)	March 30, 1987 ECRA Sampling Results (Phase I) - TPH &VOCs in soil samples exceeded ECRA is oil samples. June 14, 1988 Phase II ECRA Sampling Results - Metals (cadmium, copper, lead, mercury & Zinci) exceed ECRA is oil samples. January 30, 1989 NJDEP Letter - Metal contamination is associated with fill material. Remediation of metal contamination is not required (page 1, section 1.1). Deed Notice may be required. April 3, 1990 NJDEP Letter - NJDEP will require a deed restriction for metals scontamination. September 10, 1990 - Meeting between NJDEP and Textron/Environ to discuss the need for a deed restriction for metals associated with fill material. September 14, 1990 Environ Letter - Follow up to the September 10 discussion gearding the metal contamination associated with the fill material and the need for a deed restriction for metals associated with the fill material and the need for a deed restriction in seeded. October 1990 Additional ECRA Sampling Results and Revised Cleanup Plan - Soil samples from boring 2303 contained carcinogenic E/Ns above ECRA quidelines, VOCs not detected. February 8, 1991 NDEP Letter - NIDEP approval of Revised Cleanup Plan (including cleanup levels). The proposed additional sampling for lead and arsenic is acceptable (page 5, section II.B.6). May 22, 1991 Cleanup Plan Progress Report - The results of the additional lead and arsenic sampling were not materially different from the Phase II results. No further action (including a deed notice) is required. October 31, 1991 NJDEP Letter - NIFA for the additional lead and arsenic sampling locations is approved (pages 7-8). July 1992 Final Report on Soils Remediation - LTTA remediation performed to remediate B/N impacts at Boring 2303/2304 Area. To address potential data gaps in the sign chartation, soil was excavated vertically down to the water table and horizontally until post excavation samples were below the delanup levels (2/8/191 NJDEP Letter - NFA for the mendiation sample results were below the deaproved cleanup criteria. Donl	Yes	Deed Notice will be filed and engineering controls will be maintained (Row 43)	Closed / RA Permit needed	Νο	March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1) January 30, 1989 NJDEP Letter (Document 2) October 31, 1991 NJDEP Letter (Document 2) November 24, 1993 NJDEP Letter (Document 4) February 22, 1995 NJDEP Letter (Document 5) December 9, 1996 NJDEP Letter (Document 10) October 29, 2010 Remedial Investigation Report Form and Comments (Document 11)

Row Number	Area of Concern, Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Rece	eptors	Environmental Media to be Addressed by RI	Current Status / Outcome	RI Complete?	Remediation Complete?	Regulatory Status	Active Under LSRP Program?	RI Complete Supporting Documentation
24	AEC 24 - Tank Wagon Loading Area (Building #16) (aka Area 24) (Figure 1)	Soil Groundwater	VOCs	Direct Contact Groundwater Surface Water	Existing Land Use Ecological Vapor Intrusion	Potential Same as Existing	Soil	September 26, 1986 Letter to NJDEP - AEC 24 combined with AEC 1, Phase I sampling for AEC 24 is omitted. March 30, 1993 NJDEP Letter - NFA for AEC 24 approved (page 2, section I.B). Elevated levels of dibenzo(a,h)anthracene requires additional delineation (page 3, section I.C.4). June 28, 1993 Textron Technical Response Letter - Textron replies that AEC 24 was combined with AEC 1 in 1987 Phase I report and is no longer referred to individually. As such, NJDEP's reference to AEC 24 is not clear. November 24, 1993 NJDEP Letter - NFA for AEC 24 approved (page 1, section I.A).	Yes	Remediation Not Required	Closed / No Further Action	No	March 30, 1993 NJDEP Letter (Document 7) November 24, 1993 NJDEP Letter (Document 4)
							Groundwater	Site-wide groundwater was addressed during the Phase I and Phase II investigations and with long term monitoring (See Row 36). Site-wide VI Investigation performed from 2007 - 2013. No Further VI					
							(Vapor Intrusion) Ecological (Surface Water, Sediment)	investigation is needed. (See Row 42) Ecological impacts were evaluated for the entire site rather than AOC-by-AOC and the results are discussed separately below. (See Row 41)					
25	AEC 25 - Tank Wagon Loading Area (Building # 26) (aka 1285 Premix Loading Area, Area 25) (Figure 1)	Soil	TPH VOCs Lead	Direct Contact Groundwater Surface Water	Land Use Ecological	Same as Existing	Soil Groundwater Air (Vapor Intrusion) Ecological (Surface Water, Sediment)	March 30, 1987 ECRA Sampling Results (Phase I) - TPH &VOCs exceeded ECRA guidelines (page 51, Table 2) in soil samples collected from boring 2501. June 14, 1988 Phase II ECRA Sampling Results - Netals (lead and silver) exceed ECRA in soil samples. Only lead exceeded the 1994 cleanup criteria, but was within 1 OM. January 30, 1989 NJDEP Letter - Metal contamination is associated with fill material. Remediation of metal contamination is not required (page 1, section 11.) Deed Notice may be required. April 3, 1990 NJDEP Letter - NJDEP will require a deed restriction for metals contamination. September 10, 1990 - Meeting between NJDEP and Textron/Environ to discuss the need for a deed restriction for metals associated with fill material. September 14, 1990 Environ Letter - Follow up to the September 10 discussion regarding the metal contamination associated with the fill material and the need for a deed restriction. Additional soil sampling for lead and arsenic is to be performed. If those results are not materially different from the Phase II results, then no remediation or deed restriction is needed. October 1990 Additional ECRA Sampling Results and Revised Cleanup Plan - B/Ns & VOCs below ECRA guidelines in soil samples. February 8, 1991 NJDEP Letter - NJDEP approval of Revised Cleanup Plan (Including cleanup levels). The proposed additional sampling for lead and arsenic is acceptable (page 5, section II.B.6). May 22, 1991 Cleanup Plan Progress Report - The results of the additional lead and arsenic sampling were not materially different from the Phase II results. No further action (including a deed notice) is required. October 31, 1991 NJDEP Letter - NFA for the additional lead and arsenic sampling locations is approved (pages 7-8). July 1992 Final Report Soils Remediation - LTTA remediation performed to remediate VOC impacts. To address potential data gaps in the site characterization, soil was excavated vertically down to the water table and horizontally until post excavation samples	Yes	Yes	Closed / No Further Action	Νσ	March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1) January 30, 1989 NJDEP Letter (Document 2) October 31, 1991 NJDEP Letter (Document 2) March 30, 1993 NJDEP Letter (Document 7) November 24, 1993 NJDEP Letter (Document 4) February 22, 1995 NJDEP Letter (Document 5) June 16, 2009 NJDEP Letter (Document 6)

Row Number	Area of Concern, Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Rece	ptors	Environmental Media to be Addressed by RI	Current Status / Outcome	RI Complete?	Remediation Complete?	Regulatory Status
					LAISUNG	rotentidi		March 30, 1987 ECRA Sampling Results (Phase I) - No direct sampling of			
							Soil	this AEC occurred because all of the drains were sealed. A down gradient boring (MW-8) had total VOCs in soil samples below ECRA guidelines. June 14, 1988 Phase II ECRA Sampling Results - Metals not detected above ECRA guidelines in soil. October 1990 Additional ECRA Sampling Results and Revised Cleanup Plan - Two soil samples were collected from four borings. B/Ns were below ECRA guidelines in all soil samples. VOCs exceeded the ECRA guidelines in only 1 of 4 samples. No pattern of BN or VOC impacts was identified. February 8, 1991 NJDEP Letter - NFA for soils is approved (page 5, section II.B.4.f). March 30, 1993 NJDEP Letter - NFA for soils is approved (page 5, section II.94 cleanup criteria (page 2, section I.C). June 28, 1993 Textron Technical Response Letter - One of four samples slightly exceeded the total VOC cleanup prioria. November 24, 1993 NJDEP Letter - NFA approved (page 1, section I.A).			
26	AEC 26 - Tank Farm Drains (aka Area 26) (Figure 1)	Soil	VOCs	Direct Contact	Land Use Ecological	Same as Existing	Groundwater	March 30, 1987 ECRA Sampling Results (Phase I) - MW-8 installed down gradient to address potential groundwater impacts. No VOCs detected during Phase I sampling. June 14, 1988 Phase II ECRA Sampling Results - Metals (arsenic, cadmium, chromium, lead & mercury) exceed ECRA in groundwater samples from MW- 19. VOCs were below ECRA guidelines in groundwater samples from MW- 49. VOCs were below ECRA guidelines in groundwater samples from MW- 8. Well MW-25 was installed to assess potential contamination in the deeper aquifer. Samples from MW-25 were below ECRA guidelines for all parameters (including TPH and VOCs). Additional samples were collected from wells MW- 8 and MW-19 in March 1988 and split for filtered/unfiltered metals analysis. The unfiltered results were similar to the Phase II results. However, the filtered result did not contain lead above the ECRA guidelines. These results indicate the lead in the Phase II sample does not represent in the sample. January 30, 1989 NJDEP Letter - Metal contamination is associated with fill material. Remediation of metal contamination is not required (page 1, section 1.1). **Site-wide groundwater investigation results are covered in Row 36).**	Yes	Remediation Not Required	Closed / No Further Action
							Air (Vapor Intrusion)	Site-wide VI Investigation performed from 2007 - 2013. No Further VI rusion) investigation is needed. (See Row 42)			
							Ecological (Surface Water, Sediment)	Ecological impacts were evaluated for the entire site rather than AOC-by-AOC and the results are discussed separately below. (See Row 41)			

Active Under LSRP Program?	RI Complete Supporting Documentation
Νο	March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1) February 8, 1991 NJDEP Letter (Document 2) March 30, 1993 NJDEP Letter (Document 7) November 24, 1993 NJDEP Letter (Document 4) January 30, 1989 NJDEP Letter (Document 12)

Row Number	Area of Concern, Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Rece	eptors	Environmental Media to be Addressed by RI	Current Status / Outcome	RI Complete?	Remediation Complete?	Regulatory Status	Active Under LSRP Program?	RI Complete Supporting Documentation
					Existing	Potential							
27	AEC 27 - Drum Storage Area (unpaved) (aka Area 27) (Figure 1)	Soil	TPH VOCs	Direct Contact	Land Use Ecological	Same as Existing	Soil	March 30, 1987 ECRA Sampling Results (Phase I) - One soil sample was collected at boring 2701. TPH and VOCs were not detected. April 3, 1990 NJDEP Letter - NFA approved (page 5, #19). March 30, 1993 NJDEP Letter - NFA rescinded pending comparison of data to 1994 cleanup criteria (page 2, section I.C). June 28, 1993 Textron Technical Response Letter - Textron compared the previous sample results to the 1994 health based cleanup criteria and all results were below the criteria. November 24, 1993 NJDEP Letter - NFA approved (page 1, section I.A).	Yes	Remediation Not Required	Closed / No Further Action	No	April 3, 1990 NJDEP Letter (Document 14) March 30, 1993 NJDEP Letter (Document 7) November 24, 1993 NJDEP Letter (Document 4)
	(Figure F)						Groundwater	Site-wide groundwater was addressed during the Phase I and Phase II investigations and with long term monitoring (See Row 36).					
							Air (Vapor Intrusion) Ecological	Site-wide VI Investigation performed from 2007 - 2013. No Further VI investigation is needed. (See Row 42)					
							(Surface Water, Sediment)	Ecological impacts were evaluated for the entire site rather than AUC-by-AUC and the results are discussed separately below. (See Row 41) March 30. 1987 ECRA Sampling Results (Phase I) - A soil sample collected					
28	AEC 28 - Railroad Runoff Area (aka Area around break in pipe for run-off from Northern RR siding, Area 28) (Figure 1)	Soil	BNs	Direct Contact	Land Use Ecological	Same as Existing	Soil Groundwater Air (Vapor Intrusion) Ecological (Surface Water, Sediment)	at boring 2801 exceeded the ECRA guidelines (page 51, Table 2) for TPH. VOCs were not detected. October 1990 Additional ECRA Sampling Results and Revised Cleanup Plan - A soil sample was collected from boring 2802. Carcinogenic B/Ns exceeded ECRA guidelines. February 8, 1991 NJDEP Letter - NJDEP approval of Revised Cleanup Plan (including cleanup levels). July 1992 Final Report on Soils Remediation - LTTA remediation performed to remediate B/N impacts. To address potential data gaps in the site characterization, soil was excavated vertically down to the water table and horizontally until post excavation samples were below the cleanup levels (2/8/1991 NJDEP Letter, page 2, section 11). 63 cubic yards of soil was excavated, treated and replaced. The excavation extended east to a concrete tank pad wall. Post remediation sample results from the western sidewall were below the cleanup levels and the 1994 health based cleanup criteria but some non-detected compounds had elevated MDLs. June 28, 1993 Textron Technical Response Letter - Textron addressed elevated MDLs and provided rationale for NFA. November 24, 1993 NJDEP Letter - NFA approved for AEC 28 and for the thermally treated soil (page 1, section LA). June 1, 2009 Amendment to SRI # 3 and RAWP - Pursuant to NJDEP request (4/28/2009 NOD Letter) Textron compared the remaining soil contaminant concentrations were found to exceed the 2008 standards by more than 1 OM. EIC were found to be still effective. June 16, 2009 NJDEP Letter - NJDEP Approval of 6/1/09 Amendment to SRI # 3 and RAWP. January 22, 2010 Deed Notice Agreement - Textron and Reichhold agree to place Deed Restriction on the property. October 29, 2010 SRI # 4 - Submitted by LSRP with Remedial Investigation of RIR Form). Deed notice Agreement documented with NJDEP (Section J of RIR Form). Deed notice Agreement documented with NJDEP (Section J of RIR Form). Deed notice Agreement documented with NJDEP (Section J of RIR Form). Deed notice Agreement documented with NJDEP (Section J of RIR Form). Deed notic	Yes	Deed Notice will be filed and engineering controls will be maintained (Row 43)	Closed / RA Permit needed	No	March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1) February 8, 1991 NJDEP Letter (Document 2) November 24, 1993 NJDEP Letter (Document 4) June 16, 2009 NJDEP Letter (Document 6) October 29, 2010 Remedial Investigation Report Form and Comments (Document 11)

Row Number	Area of Concern, Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Rece	E Receptors		Current Status / Outcome	RI Complete?	Remediation Complete?	Regulatory Status	Active Under LSRP Program?	RI Complete Supporting Documentation
					Existing	Potential							
							Soil	June 14, 1988 Phase II ECRA Sampling Results - Soil samples collected around these wells contain lead above ECRA guidelines (March 30, 1987 ECRA Sampling Results Report, page 51, table 2) but below NJDEP approved cleanup levels (February 8, 1991 approval letter). October 31, 1991 NJDEP Letter - NFA approved (Borings B-7, B-8, B-9 & B- 10) (page 2, section III.B). June 28, 1993 Textron Technical Response Letter - Lead within 1 OM of 1994 health based cleanup criteria. September 1, 1994 Stadden, Arps, State, Meagher & Flom Response Letter - Requests NFA for remaining lead. NFA was previously given and the new lead cleanup criteria does not differ from the previously approved cleanup levels (approved in 2/8/1991 NJDEP Letter - NFA for remaining lead approved (page 1, #1).					
29	Lead at MW-16, MW-18 and MW-26	Soil	Lead	Direct Contact	Land Use Ecological	Same as Existing	Groundwater	June 14, 1988 Phase II ECRA Sampling Results - Shallow wells MW-16 and MW-18 had lead levels above ECRA guidelines. Deep well MW-26 did not contain lead above the ECRA guidelines. Additional samples were collected in March 1988 and split for filtered/unfiltered metals analysis. The unfiltered results were similar to the Phase II results. The filtered result from MW-16 did contain lead above the ECRA guidelines. The filtered result from MW-18 did contain lead above the ECRA guidelines. The MW-18 result indicates the lead in the Phase II sample does not represent dissolved lead content, rather it is associated with fine particular sediment present in the sample. MW-16 is the only well on site that contained lead in filtered groundwater samples above the ECRA guidelines. ** <u>Site-wide groundwater was addressed during the Phase I and Phase II investigations and with long term monitoring (See Row 36).**</u>	Yes	Remediation Not Required	Closed / No Further Action	No	March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1) October 31, 1991 NJDEP Letter (Document 9) February 22, 1995 NJDEP Letter (Document 5)
							Air (Vapor Intrusion) Ecological	Site-wide VI Investigation performed from 2007 - 2013. No Further VI investigation is needed. (See Row 42)					
							(Surface Water, Sediment)	Ecological impacts were evaluated for the entire site rather than AOC-by-AOC and the results are discussed separately below. (See Row 41)					

Row Number	Area of Concern, Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Rece	eptors	Environmental Media to be Addressed by Rl	Current Status / Outcome	RI Complete?	Remediation Complete?	Regulatory Status
					Existing	Potential	1				1
30	MW-7 Area	Soil	TPH BNs VOCs	Direct Contact Groundwater Surface Water	Land Use Ecological	Same as Existing	Soil	March 30, 1987 ECRA Sampling Results (Phase I) - Two soil samples were collected during the well installation and analyzed for TPH and VOCs. TPH exceeded the ECRA guidelines (page 51, table 2) in both samples. VOCs were very low and only the deeper sample slightly exceeded the ECRA guidelines. October 1990 Additional ECRA Sampling Results and Revised Cleanup Plan - Carcinogenic B/Ns exceeded ECRA guidelines in a sample collected adjacent to well MW-7. February 8, 1991 NJDEP Letter - NJDEP approval of Revised Cleanup Plan (including cleanup levels). July 1992 Final Report on Soils Remediation - LTTA remediation performed to remediate B/N impacts. To address potential data gaps in the site characterization, soil was excavated vertically down to the water table and horizontally until post excavation samples were below the cleanup levels (2/8/1991 NJDEP Letter - NFA opproved (page 2, section I.B). November 24, 1993 NJDEP Letter - NFA for the thermally treated soil (page 1, section I.A) June 1, 2009 Amendment to SRI # 3 and RAWP - Pursuant to NJDEP request (4/28/2009 NOD Letter) Textron compared the remaining soil contaminant concentrations were below the 2008 standards. Remaining soil concentrations were below the 2008 standards or not detected. ELC were found to be still effective.	Yes	Yes	Closed / No Furthe Action
							Groundwater Air (Vapor Intrusion) Ecological (Surface Water, Seteinger)	March 30, 1987 ECRA Sampling Results (Phase I) - The groundwater sample collected from MW-7 exceeded ECRA guidelines for total VOCs. June 14, 1988 Phase II ECRA Sampling Results - A groundwater sample from MW-7 was below ECRA guidelines for TPH and VOCs. Lead was detected above ECRA guidelines. An additional sample was collected in March 1988 and split for filtered/unfiltered metals analysis. The unfiltered results were similar to the Phase II results. However, the filtered result did not contain lead above the ECRA guidelines. These results indicate the lead in the Phase II sample does not represent dissolved lead content, rather it is associated with fine particular sediment present in the sample. ** <u>Site-wide groundwater was addressed during the Phase I and Phase II investigations and with long term monitoring (See Row 36).</u> **			

Active Under LSRP Program?	RI Complete Supporting Documentation
Νο	March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1) February 8, 1991 NJDEP Letter (Document 2) March 30, 1993 NJDEP Letter (Document 7) November 24, 1993 NJDEP Letter (Document 4) June 16, 2009 NJDEP Letter (Document 6)

Row Number	Area of Concern, Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Rece	Receptors Addre		Current Status / Outcome	RI Complete?	Remediation Complete?	Regulatory Status	Active Under LSRP Program?	RI Complete Supporting Documentation
					Existing	Potential	RI						
31	MW-12 Area	Soil	BNs Metals	Direct Contact Groundwater Surface Water	Land Use Ecological	Same as Existing	Soil Groundwater Vapor Intrusion) Ecological (Surface Water, Sediment)	June 14, 1988 Phase II ECRA Sampling Results - Soil samples collected around the well contain metals above ECRA guidelines (March 30, 1987 ECRA Sampling Results Report, page 51, table 2) but below 1994 health based cleanup criteria. January 30, 1989 NJDEP Letter - Metal contamination is associated with fill material. Remediation of metal contamination is not required (page 1, section 1.1). Deed Notice may be required. April 3, 1990 NJDEP Letter - NJDEP will require a deed restriction for metals contamination. September 10, 1990 - Meeting between NJDEP and Textron/Environ to discuss the need for a deed restriction for metals associated with fill material and the need for a deed restriction. Additional soil sampling for lead and arsenic is to be performed. If those results are not materially different from the Phase II results, then on remediation or deed restriction is needed. October 1990 Additional ECRA Sampling Results and Revised Cleanup Plan - Carcinogenic B/Ns exceeded ECRA guidelines in the surface soil sample. Intermediate and deeper samples were below the ECRA guidelines. February 8, 1991 NJDEP Letter - NJDEP approval of Revised Cleanup Plan (including cleanup levels). The proposed additional sampling for lead and arsenic is acceptable (page 5, section II.B.6). May 22, 1991 Cleanup Plan Progress Report - The results of the additional lead and arsenic sampling were not materially different from the Phase II results. No further action (including a deed notice) is required. October 31, 1991 NJDEP Letter - NFA for the additional lead and arsenic sampling locations is approved (pages 7-8). July 1992 Final Report on Soils Remediation - LTTA remediation performed to remediate B/N impacts. To address potential data gaps in the site characterization, soil was excavated vertically down to the water table and horizontally until post excavation samples were below the cleanup levels (2/8/1991 NJDEP Letter - NG 40 the 1994 health based cleanup revels us exoavated, treated and replaced. Post remediation sampler result	Yes	Yes	Closed / No Further Action	Νο	March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1) January 30, 1989 NJDEP Letter (Document 2) October 31, 1991 NJDEP Letter (Document 7) March 30, 1993 NJDEP Letter (Document 7) November 24, 1993 NJDEP Letter (Document 4) June 16, 2009 NJDEP Letter (Document 6)

Number	Response Tracking	Impacted Media	Concern	Exposure Route	Rece	Receptors Aa xisting Potential		Current Status / Outcome	RI Complete?	Remediation Complete?	Regulatory Status	Active Under LSRP Program?	RI Complete Supporting Documentation
1					Existing	Potential					İ	İ	
32	MW-15 Area	Soli	BNs Metals	Direct Contact Groundwater Surface Water	Land Use Ecological	Same as Existing	Soil Groundwater	June 14, 1988 Phase II ECRA Sampling Results - Soil samples collected around the well contain metals above ECRA guidelines (March 30, 1987 ECRA Sampling Results Report, page 51, table 2) but below 1994 health based cleanup criteria. January 30, 1989 NJDEP Letter - Metal contamination is associated with fill material. Remediation of metal contamination is not required (page 1, section 1.1). Deed Notice may be required. April 3, 1990 NJDEP Letter - NJDEP will require a deed restriction for metals contamination. September 10, 1990 - Meeting between NJDEP and Textron/Environ to discuss the need for a deed restriction for metals associated with fill material. September 10, 1990 - Meeting between NJDEP and Textron/Environ to discuss the need for a deed restriction for metals associated with the fill material and the need for a deed restriction. Additional soil sampling for lead and arsenic is to be performed. If those results are not materially different from the Phase II results, then no remediation or deed restriction is needed. February 8, 1991 NJDEP Letter - NJDEP approval of Revised Cleanup Plan (including cleanup levels). The proposed additional sampling for lead and arsenic is acceptable (page 5, section II.B.6). May 22, 1991 Cleanup Plan Progress Report - The results of the additional lead and arsenic sampling were not materially different from the Phase II results. No further action (including a deed notice) is required. October 1990 Additional ECRA Sampling Results and Revised Cleanup Plan - B/Ns exceeded site specific action levels. February 8, 1991 NJDEP Letter - NJDEP approval of Revised Cleanup Plan (including cleanup levels). July 1992 Final Report on Soils Remediation - LTTA remediation performed to remediate B/N impacts. To address potential data gaps in the site characterization, soil was excavated vertically down to the water table and horizontally until post excavation samples were below the cleanup levels (2/8/1991 NJDEP Letter - NJDEP Approval of 6/1/09 Amendment to SRI # 3 and RAWP. June 14, 19	Yes	Yes	Closed / No Further Action	Νο	March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1) January 30, 1989 NJDEP Letter (Document 2) October 31, 1991 NJDEP Letter (Document 9) March 30, 1993 NJDEP Letter (Document 7) November 24, 1993 NJDEP Letter (Document 4) June 16, 2009 NJDEP Letter (Document 6)

Row Number	Area of Concern, Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Rec	Receptors Activity Potential		Current Status / Outcome	RI Complete?	Remediation Complete?	Regulatory Status	Active Under LSRP Program?	RI Complete Supporting Documentation
	, ,				Existing	Potential	RI						
33	Boring 306/307 Area	Soil	BNs	Direct Contact	Land Use Ecological	Same as Existing	Soil Groundwater Air (Vapor Intrusion) Ecological	October 1990 Additional ECRA Sampling Results and Revised Cleanup Plan - B/Ns exceeded ECRA guidelines (March 30, 1987 ECRA Sampling Results Report, page 51, table 2) at these boring locations within AEC 3. February 8, 1991 NJDEP Letter - NJDEP approval of Revised Cleanup Plan (including cleanup levels). July 1992 Final Report on Soils Remediation - LTTA remediation performed to remediate B/N impacts. To address potential data gaps in the site characterization, soil was excavated vertically down to the water table and horizontally until post excavation samples were below the cleanup levels (2/8/1991 NJDEP Letter, page 2, section II). 177 cubic yards of soil was excavated, treated and replaced. Post remediation sample results were below the cleanup levels but one sample exceeded the 1994 health based cleanup criteria (but was within 1 OM). March 30, 1993 NJDEP Letter - Cleanup for this area is acceptable (page 3, #2). November 24, 1993 NJDEP Letter - NJDEP agrees with Textron's argument that B/Ns are due to the Historic Fill. Investigation of the Historic Fill is required. Existing data may be used, at least in part. December 9, 1996 NJDEP Letter - NJDEP does not recommend additional sampling of Historic Fill but NFA for B/Ns associated with Historic Fill may not be approved without a Deed Restriction (page 1, section I). May 6, 1997 NJDEP Letter - B/N soil issues deferred pending Deed Restriction negotiations between Textron and Reichhold. June 1, 2009 Amendment to SRI # 3 and RAWP - Pursuant to NJDEP request (4/28/2009 NOD Letter) Textron compared the remaining soil contaminant concentrations were within 1 OM of the 2008 standards. EIC were found to be still effective. NFA is needed. June 16, 2009 NJDEP Letter - NJDEP Approval of 6/1/09 Amendment to SRI # 3 and RAWP. January 22, 2010 SRI # 4 - Submitted by LSRP with Remedial Investigation Report Form. Deed Notice Agreement documented with NJDEP (Section J of RIR Form). Deed Notice Agreement documented with NJDEP (Section J of RIR Form). Deed Notice Agreement d	Yes	Deed Notice will be filed and engineering controls will be maintained (Row 43)	Closed / RA Permit needed	Νο	March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1) February 8, 1991 NJDEP Letter (Document 2) March 30, 1993 NJDEP Letter (Document 7) November 24, 1993 NJDEP Letter (Document 10) June 16, 2009 NJDEP Letter (Document 6) October 29, 2010 Remedial Investigation Report Form and Comments (Document 11)
							Sediment)	and the results are discussed separately below. (See Row 41)					
34	Boring 1707/1712 Area	Soil	BNs	Direct Contact	Land Use Ecological	Same as Existing	Soil Groundwater Air (Vapor Intrusion) Ecological (Surface Water, Sediment)	October 1990 Additional ECRA Sampling Results and Revised Cleanup Plan - B/Ns exceeded ECRA guidelines (March 30, 1987 ECRA Sampling Results Report, page 51, table 2) at these boring locations in an area independent of AEC 17. February 8, 1991 NJDEP Letter - NJDEP approval of Revised Cleanup Plan (including cleanup levels). July 1992 Final Report on Soils Remediation - LTTA remediation performed to remediate B/N impacts. 25 cubic yards of soil was excavated, treated and replaced. Post remediation sample results were below the cleanup levels and the 1994 health based cleanup criteria. March 30, 1993 NJDEP Letter - NFA approved (page 2, section I.B). November 24, 1993 NJDEP Letter - NFA approved (page 2, section I.B). June 1, 2009 Amendment to SRI # 3 and RAWP - Pursuant to NJDEP request (4/28/2009 NOD Letter) Textron compared the remaining soil contaminant concentrations to the June 2, 2008 Remediation Standards. Remaining soil concentrations were below the 2008 standards or not detected. EIC were found to be still effective. NFA is needed. June 16, 2009 NJDEP Letter - NJDEP Approval of 6/1/09 Amendment to SRI # 3 and RAWP. Site-wide groundwater was addressed during the Phase I and Phase II investigations and with long term monitoring (See Row 36). Site-wide VI Investigation performed from 2007 - 2013. No Further VI investigation is needed. (See Row 42) Ecological impacts were evaluated for the entire site rather than AOC-by-AOC and the results are discussed separately below. (See Row 41)	Yes	Yes	Closed / No Further Action	No	March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1) February 8, 1991 NJDEP Letter (Document 2) March 30, 1993 NJDEP Letter (Document 7) November 24, 1993 NJDEP Letter (Document 4) June 16, 2009 NJDEP Letter (Document 6)

Row Number	Area of Concern, Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Rece	eptors	Environmental Media to be Addressed by RI	Current Status / Outcome	RI Complete?	Remediation Complete?	Regulatory Status	Active Under LSRP Program?	RI Complete Supporting Documentation
35	MW-10/Boring M2401 Area	Soil	BNs	Direct Contact Groundwater Surface Water	Existing Land Use Ecological	Potential Same as Existing	RI Soil Groundwater Groundwater	October 1990 Additional ECRA Sampling Results and Revised Cleanup Plan E/Ns exceeded ECRA guidelines at these boring locations within AEC 17. February 8, 1991 NJDEP Letter - NJDEP approval of Revised Cleanup Plan (including cleanup levels). July 1992 Final Report on Soils Remediation - LTTA remediation performed to remediate B/N impacts. To address potential data gaps in the site characterization, soil was excavated vertically down to the water table and horizontally until post excavation samples were below the cleanup levels (2/k/1991 NJDEP Letter, page 2, section II). 65 cubic yards of soil was excavated, treated and replaced. Post remediation sample results were below the cleanup levels and the 1994 health based cleanup criteria. March 30, 1993 NJDEP Letter - NFA for the thermally treated soil (page 1, section I.A). June 1, 2009 Amendment to SRI # 3 and RAWP - Pursuant to NJDEP request (4/28/2009 NOD Letter) Textron compared the remaining soil contaminant concentrations to the June 2, 2008 Remediation Standards. Remaining soil concentrations were within 1 OM of the 2008 standards. EIC were found to be still effective. NFA is needed. June 16, 2009 NJDEP Letter - NJDEP Approval of 6/1/09 Amendment to SRI # 3 and RAWP. March 30, 1987 ECRA Sampling Results (Phase I) - Well MW-10 was installed to address shallow groundwater samples exceeded ECRA guidelines. June 14, 1988 Phase II ECRA Sampling Results (Foundwater samples from MW-10 exceeded ECRA for VOCs and lead. An additional sample was collected from MW-10 in March 1988 and split for filtered/unfiltered metals analysis. The unfiltered results were similar to the Phase II results. However, the filtered result did not contain lead above the ECRA guidelines. These results indicate the lead in the Phases II samyle does not represent in the samples.	Yes	Yes	Closed / No Further Action	No	March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1) February 8, 1991 NJDEP Letter (Document 2) March 30, 1993 NJDEP Letter (Document 7) November 24, 1993 NJDEP Letter (Document 4) June 16, 2009 NJDEP Letter (Document 6)

Row Number	Area of Concern, Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Rece	ptors	Environmental Media to be Addressed by Rl	Current Status / Outcome	RI Complete?	Remediation Complete?	Regulatory Status
					Existing	Potential	70				
36	Groundwater Investigation (Figure 2)	Groundwater	VOCs	Groundwater Surface Water	Groundwater Ecological	Same as Existing	Groundwater	March 30, 1987 ECRA Sampling Results (Phase I) & June 14, 1988 Phase II ECRA Sampling Results - A total of 25 monitoring wells were installed to investigate potential groundwater issues for individual ACCs and for the site as a whole. TPH, VOCs and/or metals were detected in groundwater samples collected from a limited number of monitoring wells (page 51, Table 2). Based on the Phase I and II groundwater analytical results Textron concluded that the shallow groundwater contamination is limited to a few small areas of the site and is due to the shallow soil contamination. Remediation of the soil source material will reduce the groundwater contaminant concentrations. Also, contaminant transport modeling performed during the Phase II investigation indicated that contaminant concentrations at the Bay receptor would be insignificant and pose no threat to public health. For these reasons, Textron proposed no additional characterization or remediation for shallow groundwater at the site. January 30, 1989 NJDEP Letter - Textron's proposal for no further action for the groundwater contamination was unacceptable. NJDEP required quarterly monitoring of select wells (IWW-10 and WW-13 through IWV-15) for VOCs usit the soil remediation was completed, plus an additional one year after the remediation (page 2, section II). The results of the quarterly sampling would dictate whether or not additional groundwater samples or remediation would be required. An additional well, located down-gradient of MW-10, was also required. Textron installed MW-20 and began the requested quarterly monitoring in May 1989. January 1994 Progress Report - The soil remediation was completed in 1992 and VOC concentrations in groundwater samples were decreasing or were non detect after one year. April 7, 1994 NJDEP Letter - The proposal for no further groundwater sampling for the selected wells is asceptable (Dage 2, #4). *Ongoing/current groundwater issues associated with the AOC 8, <u>Building 13 and Building 31/32 AOCs are addressed below in rows 39, </u>	Yes	Remediation is ongoing at AOC 8 and Building 31/32	RI Complete / RA permit needed
37	AOC 8 (Figure 2)	Soil Groundwater	TPHC (EPH) VOCs	Direct Contact Groundwater Surface Water	Land Use Groundwater Ecological	Same as Existing	Soil & Groundwater	AOC8 was designated as an AOC due to two partially buried, suspected No. 4 fuel tanks found in this location. AOC8 has historically been defined as an area of soils and shallow groundwater impacted by Total Petroleum Hydrocarbons (TPH) and Volatile Organic Compounds (VOCs), specifically benzene, ethylbenzene, styrene and xylenes, above the applicable remediation standards June 1, 2009 Amendment to SRI # 3 and RAWP - A remedial investigation plan to complete delineation to November 2009 standards and a remedial action plan for the area of AOC8 soils and groundwater impacts utilizing injections of chemical oxidant was proposed. June 16, 2009 NJDEP Letter - NJDEP Approval of 6/1/09 Amendment to SRI # 3 (RWP) and RAWP; including NJDEPS/DGW permit approval. Through May 1, 2010 four separate injection events were completed, with the final event including a mixture of Oxygen Release Compound (ORC). The area is currently in a performance monitoring mode with the first RAPR issued to NJDEP in December 2010. Primary contaminants in AOC8 have been TPHC >10,000 mg/kg, ethyl benzene and styrene. October 29, 2010 SRI No. 4 - (submitted by LSRP with Remedial Investigation Report Form) In accordance with the June 16, 2009 approval of the RIWP, two borings (MAC35 and 36) were installed to confirm the proposed soil delineation to November 2009 standards for ethyl benzene and styrene within AOC8. One boring was installed at the same location as previous boring MAC11 and the second was installed at the same location as previous boring SRI No. 3. The chemical oxidation Remedial Action was authorized to commence immediately following the installation of this boring. "Remediation is ongoing at AOC8. Injections were temporarily postponed following the discovery of LNAPL in MW-36 in September 2012. Remediation is necided soil that was not remediated during the 1992 remediation of AEC 1 is located within the footprint of current AOC 8 and will be addressed in a future RAWP.**	Yes	No	Open / RI Complete / Remediation Ongoing

Active Under LSRP Program?	RI Complete Supporting Documentation
Νο	March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1) January 30, 1989 NJDEP Letter (Document 12) April 7, 1994 NJDEP Letter (Document 13)
Yes	June 16, 2009 NJDEP Letter (Document 6) October 29, 2010 Remedial Investigation Report Form and Comments (Document 11)

Row Number	Area of Concern, Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Rece	eptors	Environmental Media to be Addressed by RI	Current Status / Outcome	RI Complete?	Remediation Complete?	Regulatory Status
					Existing	Potential		Sentember 10, 2012 - 0.4' of LNAPL measured in well MW-36 during a routine.			
38	AOC 8 LNAPL (Figure 2)	Soil Groundwater	ТРН (ЕРН)	Direct Contact Groundwater Surface Water	Land Use Groundwater Ecological	Same as Existing	Soil & Groundwater	September 10, 2012 - 0.4 of LNAPL measured in well MW-36 during a routine groundwater sampling event. The well was located within the footprint of the AOC8 2007 remedial excavation. This excavation remediated contaminated soils (TPH > 10,000 mg/kg and an area of BTEX). Passive recovery, using oil- sorbent socks, and bi-weekly LNAPL monitoring was initiated. Ongoing chemical oxidation remediation was temporarily postponed until the nature and extent of the LNAPL was determined. October 3, 2012 - Confirmed Discharge Notification Form submitted. November 8, 2012 - LNAPL Report in Submitted to NJDEP. P. August 19, 2013 AOC8 LNAPL IRM Report - (submitted to NJDEP by the LSRP) No ongoing source for the LNAPL was discovered. The initial investigation concluded the LNAPL was a highly weathered heavy fuel oil with similar characteristics of #6 fuel oil and was attributed to a historic release. The LNAPL was delineated horizontally and vertically. Free-phase LNAPL was not detected in any other well during initial monitoring. Since the LNAPL was not detected in any other well during initial monitoring. Since the LNAPL was not detected on fine the longeroft - (submitted by the LSRP with RI Form) The RI results confirmed the initial LNAPL delineation. Soil EPH results indicated the LNAPL was below residual asturation. The RI also completed delineation of soil and groundwater impacts associated with LNAPL residuals, re-evaluated each of the receptor evaluation components and provided a conceptual site model (CSM) for the LNAPL detection. Based on the CSM, the detection of LNAPL in the tootprint of the ACC 8 remediated area essentially constituted a 're-opener'. The CCCs detected in soil samples collected during the RI contained EPH in concentrations ranging from ND to 9,770 mg/kg which is consistent with past investigations at AOC8. Benzene, ethylbenzene and xylenes were detected in soil samples at COR2. The information gathered and a multiple lines of evidence approach indicated that another AOC was the elass for devi	Yes	Νσ	Open / RI Complete Remediation Ongoi
							Air (Vapor Intrusion) Ecological (Surface Water, Sediment)	Site-wide VI Investigation performed from 2007 - 2013. No Further VI investigation is needed. (See Row 42) Ecological impacts were evaluated for the entire site rather than AOC-by-AOC and the results are discussed separately below. (See Row 41)			

Active Under LSRP Program?	RI Complete Supporting Documentation
Yes	March 27, 2014 AOC8 LNAPL RI Report Form (Document 15)

N	Row umber	Area of Concern, Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Rece	eptors	Environmental Media to be Addressed by RI	Current Status / Outcome	RI Complete?	Remediation Complete?	Regulatory Status
-		1				Existing	Potential	N				
	39	Building 13 (Figure 2)	Soil Groundwater	TPH Non-Historic Fill Related SVOCs	Direct Contact Groundwater Surface Water	Land Use Groundwater Ecological	Potential Same as Existing	Soil & Groundwater	 Building 13 AOC consisted of two previously unknown USTs that were discovered by Reichhold adjacent to the southwest corner of Building #13 during installation of a water line in 1999. Petroleum impacted soil was noted in the excavation and the NJDEP spill holine was notified. The USTs (two 1,000 galon No. 6 Fuel) were removed in October 1999 along with 356 tons of petroleum impacted soil. Several phases of investigations were performed to delineate the soil and groundwater impacts as summarized below and concurred by the NJDEP. April 13, 2009 SRI No. 3 - Groundwater impacts due to non-Historical Fill related SVOC constituents have not been identified and no-further-action on groundwater is necessary. Soils impacts were delineated. Delineation to the west of Building #13, relied on visual sheen observations and was later superseded by sample analyses (see SRI No. 4 below). A remedial action work plan for installation of cover materials over exposed surface soils was proposed. Primary contaminants have been Historic Fill related SVOCs, and TPH > 10,000 mg/kg. April 28, 2009 NJDEP Letter - Delineation is complete for Building 13 AOC (page 2, section 2.b). April 10, 2009 RAWP/RAWP Amendment June 1, 2009 - Based on the completed delineation of soil impacts to the west of Building #13 during the 2009-2010 SRI No. 4, a RAWP was submitted for the Building #13 drea of the Site; the exposed soils below the footprints of Building #13 drea the Building #13 Area as well as institutional (deed notice) controls to address the Building #13 Area as well as institutional (deed notice) controls to address the Building #13 Area as well as institutional (deed notice) ontrols to address the Building #13 Area as well as institutional controls on the state. June 14, 2009 ADEP Letter - NJDEP Approval of 6/1/09 Amendment to SRI # 3 and RAWP. January 22, 2010 Deed Notice Agreement - Textron and Reichhold agree to place Deed Restriction on the property. Genobed	Yes	Yes	Open / RI Complete Remediation Complete / RAO needed
								Air (Vapor Intrusion) Ecological (Surface Water,	Site-wide VI Investigation performed from 2007 - 2013. No Further VI investigation is needed. (See Row 42) Ecological impacts were evaluated for the entire site rather than AOC-by-AOC and the results are discussed separately below. (See Row 41)			

Active Under LSRP Program?	RI Complete Supporting Documentation
Yes	April 28, 2009 NJDEP Letter (Document 16) August 5, 2011 RAR Form (Document 17)

-	Area of Concern.						Environmental					T
Row Number	Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Rece	ptors	Media to be Addressed by RI	Current Status / Outcome	RI Complete?	Remediation Complete?	Regulatory Status	ľ
					Existing	Potential	7.0					1
40	Building 31/32 (Figure 2)	Soil Groundwater	VOCS	Direct Contact Groundwater Surface Water	Land Use Groundwater Ecological	Same as Existing	Soil & Groundwater	 Canada givo and course adjunct and sequencing and blending of toluene, eflyit benzene, and sylenes (TEX) with various on-perfoleum oils, and generating wastewards. These operations are believed to have been the source of soil and groundwater hybrid is at a secondary Containment Pad (SCP) immediately to the south and impacted soils and groundwater baceding applicable standards are primarily due to TEX compounds. To the north of Building 311/32, the impacts to both soils and groundwater exceeding applicable standards are primarily due to TEX compounds. To the north of Building 311/32, the privacts to both soils and periodicable standards have primarily been due to TEX, although been identified east or west of the building. Building 131 (NAC), they are added to the source of soil and groundwater exceeding applicable standards have primarily been due to TEX, although been identified east or west of the building. Building 131 (NAC), they are added to the source of the building is including applicable standards have primarily been due to TEX, although been, explicable standards have primarily been due to TEX, although been, explicable standards have primarily been due to TEX, although been, explicable standards have primarily been due to TEX, although been, explicit and the building. Aprit 13, 2009 SRI No. 3 - Delineation of soils and groundwater exceeding applicable standards and removal to the water table, and replaced with clean fill. Groundwater mediation has been conducted beneath the building sinduing applicable standards to groundwater impacts as summarized below. Aprit 13, 2009 SRI No. 3 - Delineation of soils and groundwater impacts due to building 431/432 and additional investigation extending northwater or soils impacts and the Building 331 and 32 to Rever Due as a due to the soil and groundwater impacts due to building 431 and 32 to Rever Due as a due to the soil of the adjuence TEX and the privation of groundwater impacts due t	Yes	No	RI Complete / Remediation Ongoing	1 L
							Sediment)	and the results are discussed separately below. (See Row 41)				1

Active Under LSRP Program?	RI Complete Supporting Documentation
Yes	October 29, 2010 Remedial Investigation Report Form and Comments (Document 11)

Row Number	Area of Concern, Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Rece	eptors	Environmental Media to be Addressed by Rl	Current Status / Outcome	RI Complete?	Remediation Complete?	Regulatory Status
					Existing	Potential					
41	Ecological Evaluation	Soil Groundwater Surface Water	VOCs BNs	Direct Contact Surface Water	Ecological	Same as Existing	Ecological (Surface Water, Sediment)	March 30, 1987 ECRA Sampling Results (Phase I) - Water and sediment samples were collected from the flume at upstream and downstream locations. No sediment was present at the downstream location. The samples were analyzed for TPH and Priority Pollutants. For both water samples TPH was not detected, BNs were below ECRA guidelines and VOCs exceeded ECRA guidelines (page 51, Table 2). The upstream sediment sample had TPH and BNs above ECRA and VOCs were below ECRA. All VOCs were present in similar concentrations at the upstream and downstream locations except for ethylbenzene. The sample results indicate that ethylbenzene is introduced to surface woter in the flume by the site. April 10 , 2009 SRI 4 3. (Baseline Ecological Evaluation) The Newark Bay was identified as an ecological receptor. The underground manmade flume conveys storm water and surface water drainage form the site and locations west of the suite to the Bay. Groundwater contour maps indicate that the flume also acts as a drain for groundwater at the site. Samples of water in the flume also acts as a drain for groundwater at the site. Both samples were below the GWQS for VOCs. However, B/Ns exceeded the GWQS in both samples. The elevated B/Ns are likely due to storm water drainage from nearby parking lots and that the site is underlain by Historic Fill known to contain B/Ns. No pathway for contaminated water above the GWQS migrating to the Bay. September 27, 2012 Ecological Evaluation - (submitted by LSRP with an updated Receptor Evaluation Form) Two ENSRs were identified. Plum Creek (storm water drainage channel located up gradient and west of the site) and concern and does not warrant further ecological evaluation because the site is covered by concrete or macadam pavement or building otoprints. Based on a review of groundwater data, the groundwater to surface water pathway is not a concern and does not warrant further ecological evaluation. No remedial investigation of ecological receptors was triggered by the EE findings (Section F of RE For	Yes	Remediation Not Required	No Further Ecological Investigation Required
42	Vapor Intrusion (Figure 2)	Groundwater Soil Vapor	LNAPL VOCs	Vapor Intrusion	Building #13 Building #25 Building #30 Building #31 Building #32	Same as Existing	Air (Vapor Intrusion	October 30, 2007 SRI # 2 - 2 sub-slab soil gas samples collected from the crawl space beneath Building 13 did not exceed the Generic Soil Gas Screening Levels for Non-Residential use for VOCs. Vapor Intrusion is not a concern at Building 13. October 29, 2010 SRI # 4 - (submitted by LSRP with Remedial Investigation Report Form) Sub slab soil vapor samples and indoor air samples were collected from Buildings #25, #30, #31 & #32 and analyzed for VOCs based on their proximity to contaminated groundwater above the vapor intrusion groundwater screening levels. Based on the sample analytical results vapor intrusion was eliminated as a potential exposure pathway. April 22, 2013 Vapor Intrusion Re-evaluation - Following the release of the updated vapor intrusion screening levels in January 2013, the vapor intrusion exposure pathway was re-evaluated against the new screening levels. The re- evaluation mirrored the SRI # 4 evaluation and concluded that the vapor intrusion investigation is not warranted. (No report was required ince the rconclusion drawn from the SRI # 4 evaluation did not change.)	Yes	Remediation Not Required	No Further Vapor Intrusion Investigation Required
43	Historic Fill	Soil Groundwater	BNs Metals	Direct Contact Groundwater	Land Use Groundwater	Same as Existing	Soil & Groundwater	January 30, 1989 NJDEP Letter - Metal contamination is associated with fill material. Remediation of metal contamination is not required (page 1, section 1.). Deed Notice may be required. January 24, 1996 NJDEP Letter - NJDEP agrees with Textron's argument that B/Ns are due to the Historic Fill. Investigation of the Historic Fill is required. Existing data may be used, at least in part. December 9, 1996 NJDEP Letter - NJDEP does not recommend additional sampling of Historic Fill but NFA for B/Ns associated with Historic Fill may not be approved without a Deed Restriction (page 1, section 1). May 6, 1997 NJDEP Letter - NJDEP does not recommend additional sampling of Historic Fill but NFA for B/Ns associated with Historic Fill may not be approved without a Deed Restriction (page 1, section 1). May 6, 1997 NJDEP Letter - B/N soil issues deferred pending Deed Restriction negotiations between Textron and Reichhold. January 22, 2010 Deed Notice Agreement - Textron and Reichhold agree to place Deed Restriction on the property. October 29, 2010 SR I# 4 - Submitted by LSRP with Remedial Investigation Report Form. Deed Notice Agreement documented with NJDEP (Section J of RIR Form). Deed notice must be filed and RA permit application submitted by regulatory deadline. March 27, 2014 A OC8 LNAPL RI Report - A CEA is proposed as a remedy for Historic Fill constituents in groundwater. March 27, 2014 RA Permit Extension Application - The current property owner (Reichhold) is planning to demolish the buildings located at the site. Some of the buildings scheduled to be demolished are part of the existing engineering controls in place at the site. Since the buildings es scheduled to be removed during 2014, the deed notice can not be filed until suitable replacement covers are put in place. As such, Textron applied for an 18-month extension to the May 7, 2014 RA Permit deadline. Textron will file the deed notice for Historic Fill and apply for the RA Permit by the new deadline of November 6, 2015.	Yes	Deed Notice will be filed and engineering controls will be maintained	RA Permit needed

Active Under LSRP Program?	RI Complete Supporting Documentation							
Yes	March 30, 1987 ECRA Sampling Results (Phase I), page 51 (ECRA Guidelines) (Document 1) September 2012 RE Form and Supporting Documentation (submitted by LSRP 9/27/12) (Document 18)							
Yes	October 29, 2010 Remedial Investigation Report Form and Comments (Document 11)							
Yes	January 30, 1989 NJDEP Letter (Document 12) December 9, 1996 NJDEP Letter (Document 10) October 29, 2010 Remedial Investigation Report Form and Comments (Document 11)							






March 30, 1987 ECRA Sampling Results Report (page 51, table 2)

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Spencer Kellogg, Newark, New Jersey ECRA Case No. 85403

Table 2: Dureau of Industrial Site Byar		11011101		
for Soil and Ground Water				
Parameter	So	<u>i1</u>	Ground	Water
Total Petroleum Hydrocarbons (TPHC)	100	ppm	1,000	ррр
Priority Pollutants:			10	
Acid Extractables (AE)	Case-b	y-case	50	ррр
Base Neutrals (BN)	10	ppm	50	ррр
Pesticides	Case-by	y-case	Case-	b y-ca se
Polychlorinated Biphenyls (PCB)	1–5	ppm	0.001	ррЪ
Volatile Organics (VOC)	1	ppm	10	ррЪ
Phenol	Case-b	y-case	3,500	ррЪ
Cyanide	12	ppm	200	ррb
Priority Pollutant Metals (PPM)				
Antimony	2	ppm		1
Arsenic	20	ppm	50	рро
Beryllium	400	ppm		1
Cadmium	3	ppm	10	ppb
Chromium	100	PPm	50	PPD
Copper	170	ppm	1,000	ppp
Lead	100	ppm	50	ррь
Nickel	100	ppm		_
Mercury	1	ppm	2	ppb
Selenium	4	ppm	10	Dep
Silver	5	ppm	50	ppb
Thallium	5	ppm		
Zinc	350	ppm	5,000	ррр
Polycyclic Aromatic Hydrocarbons (PAH)	10	ppm	50	ррЪ
ppm: Parts per million (mg/kg) ppb: Parts per billion (mg/l) Indicates no cleanup level provi	ded in N.	JAC 7:9-6	.6	
Note: The values in this table are inf the Bureau of Industrial Site Ev compiled from BISE documents and 7:9-6.6.	ormal clo aluation from the	eanup gui (BISE). e levels	delines use They are set forth i	d by n NJAC

Table 2: Bureau of Industrial Site Evaluation Informal Cleanup Guidelines

February 8, 1991 NJDEP Letter



State of New Jersey DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF HAZARDOUS WASTE MANAGEMENT

LANCE R. MILLER, DIRECTOR CN 028 Trenton, N.J. 08625-0028 (609) 633-1408 Fax # (609) 633-1454

Feb. 8; 1991 1051 16 8 1831

CERTIFIED MAIL RETURN RECEIPT REQUESTED

Mr. Paul B. Duff Textron, Inc. 40 Westminster Street Providence, Rhode Island 02903

RE: Industrial Establishment: Textron, Inc.- Spencer Kellogg Division (8540_); NL Spencer Kellogg, Inc. (89281) Location: 400 Doremus Avenue, Newark City, Essex County Lots: 9, 11 Block: 5070 Transaction: Sale of Property, Sale of Business (85403); Sale of Property, Sale of Business (89281) Cleanup Plan Dated: October 16, 1990 ECRA Case #85403; 89281

Dear Mr. Duff:

Pursuant to the Authority vested in the Commissioner of the New Jersey Department of Environmental Protection ("NJDEP") by the Environmental Cleanup Responsibility Act, N.J.S.A. 13:1K-6, and duly delegated to the Assistant Director of the Industrial Site Evaluation Element pursuant to N.J.S.A. 13:B-4, the above referenced Cleanup Plan submitted on behalf of Textron, Inc. is hereby approved by NJDEP as conditioned below.

APPROVED CLEANUP LEVELS I.

A. Referenced soil cleanup levels shall be as listed herein:

Contaminant	Concentration			
Total Base Neutrals (BN)	100	ppm	*	
Petroleum Hydrocarbons (PHC)			**	
Polychlorinated Biphenyls (PCB)	5	ppm		
Total Volatile Organics (VO)	10	ppm	***	
Arsenic (As)	20	ppm		
Cadmium (Cd)	3	ppm		
Chromium (Cr)	100	ppm		
Copper (Cu)	170	ppm		
Lead (Pb)	1000	ppm		
Mercury (Hg)	· 1	ppm		
Nickel (Ni)	100	ppm		
Selenium (Se)	4	ppm	201	
Zinc (Zn)	350	ppm		

If carcinogenic PAHs (CaPAHs) are present, the Soil Cleanup Level for this class of compounds shall be 10 ppm. The CaPAHs are as follows:



benzo(a)anthracene benzo(b)fluoranthene benzo(j)fluoranthene benzo(k)fluoranthene benzo(a)pyrene chrysene dibenz(a,h)acridine 7H-dibenzo(c,g)carbazole dibenz(a,h)anthracene dibenzo(a,e)pyrene dibenzo(a,h)pyrene dibenzo(a,i)pyrene dibenzo(a,l)pyrene indeno(1,2,3-cd)pyrene dibenz(a,j)acridine

In addition, any identified compounds which can not be classed as petroleum products or tentatively identified compounds (TICs) which can not be excluded as CaPAHs shall be included in this criteria (10 ppm).

Where any CaPAH TICs have been identified, the concentrations must be included in the total CaPAH concentration of that sample. The Department acknowledges that the quantification of TICs is estimated, therefore Textron has the option of more definitively determining the actual concentrations of these values using laboratory standards to quantify all CaPAHs and identified TICs.

- ** A cleanup concentration for PHC in excess of 100 ppm will be evaluated by the Department provided said PHC contamination is demonstrated to be free of Volatile Organics (Benzene) and Ca(PAH) contamination in excess of 1 ppm and 10 ppm, respectively.
- *** For petroleum based contamination. If Benzene is present, cleanup shall be to 1 ppm; if Benzene is not present, cleanup of VO shall be to 10 ppm. This alternative VO cleanup level applies only to hydrocarbons and not to other species such as halogenated VOs. Again, any TICs which cannot be classed as petroleum products shall be included in this criteria.

II. SOILS

In general, the proposed remedial strategy for the soil contamination consists of excavation, on-site treatment and re-deposition of treated soils. Originally, Textron, Inc. (Textron) had been pursuing an in-situ, bioremediation program; however upon further evaluation and clarification from the Department regarding the scope of required cleanup, Textron has proposed to remediate the soil contamination via low-temperature volatilization. Since some data gaps still exist, it is assumed that this will be compensated for by either excavating to the water table or through post-excavation sampling. In addition, the proposed cleanup includes verification sampling in several areas to confirm the presence of fill-related metals and long-term ground water monitoring. This approach is conditionally acceptable. The specifics of this approval are documented below.

A. General Soil Comments

1. Textron (and their consultants, Environ Corporation) appear to exhibit some confusion with regard to organic data interpretation. The major problem is that Textron does not include the tentatively identified compounds (TICs) in their evaluation of the data. Since several CaPAHs are TICs, they must be included in the data evaluation. Also, Textron should review the data and make remedial decisions based on "corrected" values (i.e. accounting for surrogate recovery if the recoveries are outside the values referenced the Division of Hazardous Waste's Remedial Investigation Guide). Since Textron seems to arbitrarily dictate what is within the cleanup criteria, the following criteria shall be strictly adhered to. If the corrected B/N data indicate that contamination is generally less than 1.5 times the cleanup criteria or the total volume of affected soil is less than five (5) cubic yards, <u>then</u> Textron may consider the value to be "not materially different from the cleanup level".

2. The base/neutral organic chromatograms generated during the latest sampling event were of questionable quality due to PHC interference. It appears that the laboratory did not utilize the alumina matrix cleanup method prior to analyzing the samples. For this reason, analysis for PHCs for 50 percent of all post-excavation samples is required. In addition, it is again recommended that any samples exhibiting PHC concentrations over 500 ppm be analyzed for B/N+15 using the Alumina Partition Cleanup Method outlined below.

a. If the total petroleum hydrocarbon concentration for a sample is greater than 500 ppm, the sample may require cleanup prior to BN+15 analysis in order to insure that proper Method Detection Limits are achieved and chromatographic peaks are resolved. The sample is cleaned (PHCs removed) using Method 3650 (Matrix Cleanup). Method 3611 (Alumina Partition) divides the sample into its constituent base neutral fractions: aliphatics (alkanes), aromatics (includes PAHs) and polar compounds. The aromatic fraction is the one to be analyzed.

B. Specific Soil Comments

5.

1. In the areas of environmental concern (AECs) listed below, no further action is proposed or required:

Area 2 - Dumpster/Trash Compactor Area Area 11 - Former Above Ground Tank - Unpaved Area Area 13 - Area of Former Above Ground Tanks Area 22 - Former Drum Storage Pad (Premix 1285) Area 20 - Former Gasoline Underground Storage Tank (UST) Area 27 - Former Drum Storage Area

2. In many AECs, Textron proposes to excavate the affected area and remediate the soil contamination using low-temperature volatilization. Post-excavation sampling will be conducted as each area is excavated. Parameters will be governed by the type of contamination (B/N or VO) driving the cleanup in the specific area. Once the soil is remediated to the cleanup goals referenced above, the soil will be returned to the excavation. In some instances, asphalt removal, removal of railroad sidings and removal of soil beneath a buildings will be conducted with off-site disposal.

The above described cleanup scenario is proposed and is acceptable in the following AECs:

	Area	1	-	Resin Spill Area
	Area	3	-	Rail Car Loading Area (Resin Discharge Area)
*	Area	4	-	Rail Car Loading Area (Fish Oil Discharge Area)
	Area	5	-	Rail Car Loading Area (Phthalic Anhydride Area)
	Area	7	-	Solvent Tank Truck Loading Area
	Area	9	-	Raw Material and Resin Discharge Though Floor
*	Area	12	-	Stilted Building
	Area	14	-	Area of Former Above Ground Tanks
	Area	15	-	Former Drum Storage Area
	Area	16	-	Former Drum Storage Area
	Area	17	-	Former Drum Storage Area
	Area	19	-	Solvent Sludge Storage Area
	Area	21	_	Former Above Ground Tank Farm

Area 25 - Tank Loading Area (Premix 1285 Generator)

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* Surfical soil in these areas which is extremely contaminated will be disposed of off-site (approximately 200 cubic yards).

3. Additional sampling for B/N+15 shall be conducted in the following AECs which are targeted for remediation:

a. Area 9 - Delineation or post-excavation for B/N+15 is required in this area due to previous sample results.

b. Area 15 - Post-excavation sampling in this area shall include B/N+15.

c. Area 17 - Previous sample locations 1706 and 1707 are rejected due to unacceptable chromatograms. A minimum of two samples shall be collected in the vicinity of these locations for B/N+15. If contamination is detected above the site cleanup criteria, remediation shall be conducted in these areas.

4. In several areas Textron proposes no further action, however the data indicates that additional verification sampling and/or remediation is needed. The requirements for these areas are described below.

a. Area 6: Fuel Oil UST - Previous sampling indicated the presence of elevated CaPAHs in this area. It appears that this contamination may be the result of contaminated fill, however verification sampling is needed to confirm this. A minimum of one sample in southern direction (within 10') shall be collected in the vicinity of former boring 603 to substantiate this position. Analyses shall be for PHCs and B/N+15. Provided that a decreasing gradient of contamination is observed, no further action will be required.

b. <u>Area 8: Two Fuel Oil USTS</u> - Target B/Ns were detected in this area, over half of which were CaPAHs slightly above 10 ppm (sample 803). TIC data for the samples collected in the vicinity of this sample were not reported. Therefore, additional sampling is needed to confirm that this area will not require remediation. Two samples shall be collected; one in the immediate vicinity of boring 803 at 18-24" below the depth of 803-01 and one sample 5 to 10' to the west of boring 803 at a similar depth of 803-01. Parameters shall be B/N+15 and PHCs.

c. <u>Area 10: Finished Product and Raw Material Storage Area</u> - The sample collected in this area exhibited CaPAHs above the cleanup criteria (11.3 ppm). Since there was only one sample for B/Ns collected in this area, the need to confirm that this area is not a concern can only be justified by additional confirmatory sampling. A minimum of two samples shall be located in this area for B/N+15 and PHCs to determine that this location will not require remediation.

d. <u>Area 18: Fuel Oil Unloading Area</u> - Due to the presence of CaPAHs above the cleanup criteria (16 ppm), "hot-spot" excavation with post-excavation sampling shall be conducted in this area.

e. <u>Area 23: Tank Loading Area (Premix 1285 Generator)</u> - B/N analyses from boring 2303 are rejected due to poor chromatography. Since the CaPAH concentration was nominally exceeded and the sample was collected over 15' from the sample which was of previous concern (8,800 ppm), the need for re-sampling of this area is warranted. One sample shall be collected in the location of the previous PHC hit referenced for B/N+15. Remediation of this area shall be conducted if the cleanup criteria is exceeded. The Department recognizes the presence of a bermed area now located in this area. The location of this sample should be as close to the previous elevated PHC sample as possible

f. <u>Area 26: Drains From Large Tank Farm</u> - Sampling in this area resulted in slightly elevated VOs, primarily xylenes, in one location. Due to the presence of monitoring wells in the vicinity of this area, no further action for soils is required.

g. <u>Area 28: Railroad Siding Runoff Discharge Pipe</u> - Due to the presence of elevated CaPAHs (17.1 ppm), remediation/excavation with post-remedial sampling shall be conducted in this area. Post-excavation sampling shall be for PHCs and B/N+15.

5. Due to the discrepancies in the duplicate samples collected from boring B-5, Textron proposes to re-sample this area. This is acceptable provided that if the cleanup criteria is exceeded, remediation shall be conducted.

6. In several AECs, Textron will be conducting limited pre-remedial sampling. The purpose of this is to verify that sufficient soils volumes have been conservatively estimated which are targeted for remediation. This will be achieved by utilizing a field GC (using Method 8020) for volatile organic sampling and standard analysis methods for analyzing for B/Ns (in one location). Also, five samples to be analyzed for lead and/or arsenic will be collected to verify that these contaminates are fill related. If extensive lead and/or arsenic are present, off-site disposal of these soils may be required. Since post-excavation sampling and/or excavation to the water table will be conducted as areas are excavated and transported to the treatment area, this proposed sampling is acceptable as part of the cleanup plan.

7. Textron shall provide an affidavit from the individuals who conducted the sampling on 7/25/90 since the Chain of Custody forms in Volume 2 are inconsistent and do not show a complete chain of custody.

8. Textron is advised that if the selected remedial option (low-temperature volatilization) is not totally effective in achieving the site specific cleanup criteria, a contingency for off-site disposal shall be implemented for any remaining contamination.

III. HYDROGEOLOGY

As a part of the proposed remediation, Textron will be continuing the quarterly ground water monitoring program previously established. Quarterly monitoring will continue through the soils cleanup and for a minimum of one year after the remediation is completed. The need for additional monitoring shall be evaluated based upon the results of the sampling.

IV. PERMIT REQUIREMENTS

In the Cleanup Plan, Textron acknowledges the need for air permits for the proposed remedial technology. However, Textron fails to address the need for obtaining a RCRA TSD permit. Given the current regulations governing the ex-situ treatment of hazardous waste (and soils contaminated with hazardous waste), a sufficient delay in the implementation of the actual cleanup may

occur while the permit process takes place. This is also a factor in requiring worst case financial assurance since Textron may wish to expedite the remediation of this site due to on-going operations. Finally, Textron proposes to redeposit the treated soil into the excavation rather than disposing of the material off-site. This poses additional regulatory involvement since the material would have to be delisted prior to redeposition. The following Bureaus should be contacted to begin the permit process.

1091:14

-Bureau of New Source Review at (609) 292-5196 -Bureau of Hazardous Waste Classification at (609) 292-8341 -Bureau of Hazardous Waste Engineering at (609) 292-9880

Textron has recently been in contact with personnel in the Department's Bureau of Hazardous Waste Classification. Preliminary indications are that the soils targeted for low-temperature volatilization be classified as non-hazardous, thus eliminating the need for a RCRA TSD permit. Textron has indicated that the proper documentation will be provided from the Department confirming this matter.

V. GENERAL

1. Textron, Inc. shall comply with all federal, state, and local laws, regulations, and ordinances in implementing the approved Cleanup Plan.

2. Textron, Inc. shall obtain all federal, state, and local permits prior to implementation of the approved Cleanup Plan. Should any condition or limitation of said permits be more stringent than those in the approved Cleanup Plan, then said permit requirements shall supersede the terms of this approval.

3. Upon the written request of NJDEP, Textron, Inc. shall submit for NJDEP review and approval any additional sampling plans deemed necessary by NJDEP during the implementation of a Cleanup Plan to fully delineate the nature and extent of environmental contamination on or from Textron, Inc. Textron, Inc. shall implement and complete any such additional Sampling Plans, and submit the results thereof, in accordance with the timeframes set forth in the approved additional Sampling Plan. Furthermore, Textron, Inc. shall prepare and submit to NJDEP for approval any revisions to the Cleanup Plan necessary to remediate any additional environmental contamination on or from Textron, Inc. as identified during the cleanup plan implementation, by any additional sampling, or from any other source. Textron, Inc. shall revise and submit the required information within a reasonable time not to exceed thirty (30) calendar days from receipt of written notification from NJDEP.

4. The ECRA Requirement for remediation of all environmental contamination on or from Textron, Inc. and the terms and conditions of the approved Cleanup Plan shall be binding upon Textron, Inc., and its officers, management officials, successors in interest, assigns, tenants, and any trustee in bankruptcy or receiver appointed pursuant to a proceeding in law or equity.

5. Textron, Inc. shall amend the amount of posted financial assurance specified in paragraph 11.A of the Administrative Consent Order to equal the amount of \$2,159,800.00, the estimated cost of implementation of the Cleanup Plan or shall provide alternative financial assurance in accordance with the regulatory requirements of N.J.A.C. 7:26B-6 in the amount specified above within fourteen (14) days of receipt of this Cleanup Plan approval. Furthermore, Textron, Inc. shall maintain the required financial assurance until NJDEP issues a written notification that the Cleanup Plan had been fully implemented to NJDEP's satisfaction. 6. Textron, Inc. shall prepare and submit to NJDEP monthly written progress reports detailing the implementation of the Cleanup Plan.

7. Textron, Inc. shall prepare and submit a final written report detailing the actual cleanup actions performed and final cleanup costs including overhead, compared to the cleanup actions, schedule and costs approved in the Cleanup Plan. The report shall also include the dates of cleanup activities, additional sampling results, and other pertinent information.

8. Textron, Inc. shall provide, within fourteen (14) calendar days of receipt of this Cleanup Plan approval, oversight fees in the amount of \$12,000.00, based on the cost of the cleanup, in accordance with the regulatory requirements of N.J.A.C. 7:26B-1.10.

9. Textron, Inc. shall notify the BEECRA Cleanup Oversight Section at least five (5) days prior to the initiation of any remedial actions at the site so that the cleanup oversight case manager may be present. Please contact:

> Ms. Tessie Fields, Section Chief BEECRA Cleanup Oversight Section 401 East State Street Trenton, NJ 08625 609) 633-7141

VI. Time Schedule for Implementation of Approved Cleanup Plan

1. Textron, Inc. shall initiate the Cleanup Plan as conditioned within two (2) weeks of receipt of this letter and, in accordance with N.J.A.C. 7:26B-5.5(c), begin implementation of this Cleanup Plan according to the proposed time schedule. If any delay or anticipated delay is or will be caused by events beyond the control of Textron, Inc., then Textron, Inc. shall notify NJDEP in writing within ten (10) days of the delay. Textron, Inc. shall precisely describe the cause of the delay and request an extension. Increases in the costs or expenses incurred in fulfilling the requirements contained in this letter shall not be considered a basis for an extension and such extension requests will not be granted. If Textron, Inc. fails to implement the Cleanup Plan in accordance with the proposed schedule, the NJDEP reserves the right to implement full enforcement measures and assess penalties pursuant to N.J.A.C. 7:26B-9.

NJDEP's approval, as conditioned above, is limited to the above referenced Cleanup Plan only. This Cleanup Plan approval shall not limit, restrict, or prohibit NJDEP from directing on-site or off-site cleanup, if deemed necessary by NJDEP, under any other statute, rule, or regulation. Textron, Inc. is hereby required to fully implement the referenced Cleanup Plan, as conditioned above, in accordance with the time schedule as set forth therein.

By issuing this Cleanup Plan Approval, NJDEP continues to reserve all rights to pursue any penalties allowable under the law for violations of the ECRA statute or regulations associated with this transaction.

William V

This document was prepared by the Case Manager, Mark Fisher. If you have any question concerning the document, please contact the Case Manager at (609) 633-7141.

Sincerely, Wyer For

Kenneth T. Hart, Acting Assistant Director Industrial Site Evaluation Element

cc: Tina Layre, BEAC Fred Cornell, BEERA Helen Dudar, BGWDC Bob Ratzman, BHWE Newark Division of Health Janet Smith, NL Industries Reichhold Chemicals, Inc (owner) File #89281

August 30, 1994 NJDEP Letter





State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ENERGY

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CHRISTINE TODD WHITMAN GONOMOR

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ROPERT C. SHIMN, JR. Commissioner

CERTIFIED MAIL RETURN RECEIPT REQUESTED

Paul B. Duff Textron, Inc. 40 Westminster Street Providence, RI 02903

Re: Textron, Inc. Neverk City, Fseex County ISRA Caue #0 85403 # 89281

Sear Mr. Duffr

The New Jersey Department of Environmental Protection (NJDEP) has completed a technical review of the letters dated April 25 and May 27, 1994 which were sent in response to the NJDEP's April 8, 1994 letter. Based on that review, the scope of work outlined in those letters is conditionally acceptable as outlined below. Textron, Inc. shall perform all actions in accordance with the proposed timeframe and submit the results within 75 calendar days of receipt of this letter, as per the proposed implementation Schedule. The results shall be accompanied by a revised Remedial Action Workplan (RAW) which includes a proposal to perform additional remediation.

Soils Issues

1. In regard to the elevated levels of lead on-site, Textron, Inc. has proposed to recample locations 2302. MW-18, and MW-16 for lead. The proposal is acceptable. Based on these sampling results, if levels still exceed 1000 parts per million (ppm) and Textron, Inc. desires to evaluate an alternate cleanup standard (ACS) then it is recommended that Textron, Inc. develop the ACS based on the USEPA IEUEX model (version 0.8). It is important to use this new version (February 1994, Publication Mumber 9285.7-15-1 IPA 540-K-93-081) since the default imput variables have shanged resulting in different default soil remediation levels.

2. The proposal to resample locations P98/98A in Area 1, 976 in Areas 3, 4. and 5, and P85/85A in Area 4 for benzene, toluene, athylbensene, and xylene (BTEX) is acceptable. If the total concentration of BTEX is less than 1000 ppm, and the individual concentrations of the compounds are less than the appropriate NJDEP cleanup criteria, no further action will be required.

3. Textron, Inc. shall document the contents of the former above ground storage tanks in areas AEC 11 and AEC 13.

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AUG 30 MIL

Ground Mater Issues

3. The proposal to perform additional ground water <u>delineation</u> at this time via hydropunch around menitoring well MM27 is acceptable; however, please be advised that Textron, Inc. is still required to <u>remediate</u> the contamination in that well. Textron, Inc. shall submit a proposal for <u>remediation</u> with the results of this investigation.

If Textron, Ind. determines that a contaminant source still exists and/or that the contamination extends beyond the capture some of well MW27, then Textron, Ind. shall propose to include the additional contamination in the required remedial system. If the results from the proposed delimention indicate that a source no longer exists and that the contamination is restricted to the immediate location (approximately a 10' radius) of MW27, the implementation of a short term remedial measure would be acceptable. An example of an appropriate short term remedial method for contamination of limited merial extent would be the pumping NW27, for approximately one to two weeks, with subsequent monitoring to determine if the contamination had been removed. If the interim remedial method does not work, then a more aggressive method of remediation would be required.

4. If ground water samples are to be collected from the vertical standpipes, Textron, Inc. shall purge the standpipes as per well purging requirements, so that a representative ground water sample can be collected.

5. For the contamination associated with MM27, Textron, Inc. shall propose monitoring wells at the downgradiant/sidegradient extent of the contaminant plume for monitoring purposes.

6. If it is determined that contamination associated with ANG 3 requires either active or natural remediation, Textron, Inc. shall propose permanent monitoring points (monitoring wells) in this area.

7. Textron, Inc. shall document the presence of any product if it is detected.

8. Textron may analyze the ground water samples through the use of 222 Method 502.

If you have any questions, please contact the Case Manager, Michael Buriani, at (609) 633-7141.

Sincerely.

Constation). dech for

Maurice Migliarino, Sedtion Supervisor Bureau of Environmental Evaluation and Cleanup Responsibility Assessment

enclosure

G: Christine Lacy, BERRA Helen Dudar, BOWPA

November 24, 1993 NJDEP Letter

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Jeanne M. Fox Acting Commissioner Karl J. Delancy Director

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CERTIFIED MAIL RETURN RECEIPT REQUESTED

Paul B. Duff Textron, Inc. 40 Westminster Street Providence, RI 02903

Re: Textron, Inc. Newark City, Essex County ISRA Case #6 85403 & 89201

Dear Mr. Duff:

The New Jersey Department of Environmental Protection and Energy (NJDEPE) has reviewed the following documents submitted on behalf of the above referenced establishment:

- Quarterly Progress Reports through July 15, 1993;
- Technical Response document dated June 28, 1993.

Textron, Inc. shall submit the information requested below within 30 days after receipt of this letter.

- I. SOIL REMEDIATION_REVIEW
 - A. Based on the information provided in the June, 1993 technical response letter, the proposals for no further action are acceptable for areas 2, 6, 10, 11, 12, 13, 22, 24, 26, 27, 28, and the area around monitoring well MW-12. Additionally, no further action is required for the thermally treated soils since they have been remediated to the residential direct contact soil cleanup criteria.
 - B. Please be informed that pursuant to P.L. 1993, c. 199, sect. 36, when real property is remediated to nonresidential criteria, the NJDEPE shall require any engineering or institutional controls reasonably necessary to prevent exposure to any contaminants.

Reported concentrations of lead at AOCs 15, 17, 18, 20, 23, 25 and the area around monitoring well MW-16 are elevated above residential direct contact soil cleanup criteria. Therefore, any proposal to leave these levels of contamination in place shall also be accompanied by a proposal

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Textron, Inc. ISRA Case Nos. 85403 & 89281 Page 2

for engineering and institutional controls as needed. In keeping with this requirement, please find enclosed, model language to be incorporated into said document.

Textron, Inc. shall, within 30 days after receipt of this letter, notify the NJDEPE as to the environmental fate of the contamination detected in Areas 1, 3, 4 and 5. Specifically, whether engineering and institutional controls are to be implemented at the affected areas, or whether a remedial action will be proposed.

If Textron, Inc. elects to implement the referenced engineering and institutional controls, the Declaration of Environmental restrictions document shall be prepared and submitted within 60 days of receipt of this letter.

C. AREAS 1, 3, 4 and 5:

The proposals for no further action at these locations are acceptable provided that engineering and institutional controls are implemented as noted above. The benzene data were rejected due to elevated sample method detection limits. It should also be noted that levels of ethylbenzene and xylenes exceed the non-residential cleanup criteria as well as the pre-established site cleanup concentrations. Textron, Inc. shall address these concerns in the next submittal to the NJDEPE.

II. HYDROGEOLOGY

- A. The proposal to not reinstall monitoring wells MW-15 and MW20 is acceptable. If contaminant concentrations increase in wells MW14 and MW-28, additional wells may be required.
- B. The proposal to continue the quarterly sampling of wells MW11 and MW27 and identify the source of the free phase material is acceptable. If ground water remediation is required for this area (AEC3) in the future, the proposal to retrofit the gravel trench to function as a recovery system is acceptable. Should retrofitting of the gravel trench prove unfeasible, Textron, Inc. shall propose and install the appropriate ground water recovery system.
- C. Textron, inc. shall submit a corrected Form A for monitoring well MW11. The total depth of the well is depicted as being 90 feet as opposed to 9.
- III. Attached is a Dispute Resolution Guidance document, created pursuant to P.L. 1993, c.139. This document establishes the procedure through which a person conducting a remediation of a contaminated site with NJDEPS oversight may dispute a NJDEPE decision concerning the remediation.
- IV. Textron, Inc. shall notify the Industrial Site Recovery Act ISRA) case manager at least 14 days prior to performing any sampling and/or cleanup at the site. All samples shall be collected and handled in accordance with the May, 1992 edition of the NJDEPE Field Sampling Procedures Manual (FSPM). Analytical data submissions shall conform to the format outlined in the proposed Technical Requirements document. Field data pertinent to

P.03 PAP-00145421

Textron, Inc. ISRA Case Nos. 85403 & 89281 Page 3

well purging shall be submitted as per the format outlined in the FSPM.

Should any questions arise concerning the material addressed herein, please contact Sal Balakrishnan, the ISRA Case Manager, at (509) 633-7141.

sincerely

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Stephen E. Maybury, Section Chief Bureau of Environmental Evaluation and Cleanup Responsibility Assessment

Enclosures c: Christine Lacy, BEERA Helen Dudar, BGWPA Janet D. Smith, N.L. Industrics, Inc. Barry Sams, N.L. Industries, Inc. Scott MacDonald, Environ Inc. Louis Graham, Reichold Chemicals, Inc. Joseph McGinley, Health Officer

February 22, 1995 NJDEP Letter



State of New Jersey

Department of Environmental Protection

Christine Todd Whitman Governor

Robert C. Shinn, Jr. Commissioner

FEB 22 1995

<u>CERTIFIED MAIL</u> <u>RETURN RECEIPT REQUESTED</u>

Paul B. Duff Textron, Inc. 40 Westminster Street Providence, RI 02903

Re: Administrative Consent Order (ACO) In the Matter of Textron, Inc. Newark City, Essex County ISRA Case #s 85403 & 89281

Dear Mr. Duff:

The New Jersey Department of Environmental Protection (NJDEP) has completed a technical review of the letters dated September 1, 1994 and January 17, 1995 which were sent in response to the NJDEP's August 30, 1994 letter. Based on that review, the scope of work outlined in the referenced January 17, 1995 letter is conditionally acceptable as outlined below. Textron, Inc. shall perform the proposed scope of work and submit the results, and all other information required below, within 120 calendar days of receipt of this letter.

In addition, the NJDEP has received a letter from Paul Brustofski, Reichhold Chemicals, Inc. (Reichhold), dated February 2, 1995. According to that letter (enclosed), Reichhold removed three underground storage tanks (USTs) in August 1994. Post-excavation samples indicated the presence of base neutral organic compounds and total petroleum hydrocarbons in concentrations above the NJDEP's residential cleanup criteria. Since these USTs were last used by Textron, Inc. and were not used by Reichhold, any contamination associated with these tanks is the responsibility of Textron, Inc. Therefore, Textron, Inc. shall submit a proposal to further address the contamination, along with the remainder of the information required in this letter.

Soils Issues

1. In regard to the elevated concentrations of lead on-site, no further action is required at this time, since the remaining concentrations of lead are within an order of magnitude of the NJDEP's residential cleanup criteria which were amended for lead on July 15, 1994.

 \checkmark 2. Based on the results of the resampling done at prior sampling locations P98/98A, P76, and P85/85A, the proposal for no further soil investigation is acceptable at this time. Although contaminant concentration remain above the NJDEP's Impact to Ground Water criteria, this area will be addressed by the ongoing ground water investigation.

 \sim 3. Textron, Inc. shall document the contents of the former above ground

storage tanks in areas Aposti and AEC 13.

Ground Water Issues

4. The proposed additional ground water <u>delineation</u> is acceptable. If, after this phase of investigation, the contamination has been sufficiently delineated, Textron, Inc. shall submit a revised Remedial Action Workplan.

5. Textron, Inc. has recently investigated the extent of the resinous material associated with AEC 3. No resinous material was reported in any of the delineation soil borings which were installed through the floor in Building 31. This investigation is sufficient to complete the delineation of the resinous material in the soils. At the present time, however, Textron, Inc. shall propose to delineate the extent of the resinous material in the ground water. In addition, Textron, Inc. shall submit a proposal to remediate the resinous material.

6. During his November 10, 1994 site inspection, Michael Buriani, Case Manager, was informed that on at least two occasions, the sanitary lines were leaking and had to be repaired. Since the sanitary system previously received all wastewater discharges from the facility, Textron, Inc. shall investigate the system as a source for the contamination below Building 31. In addition, Textron, Inc. shall propose to investigate the soils below Building 31 for the presence of contamination.

If you have any questions, please contact the Case Manager, Michael Buriani, at (609) 777-0899.

Sincerely,

Carol Kum g. deck for

Maurice Migliarino, Section Supervisor Bureau of Environmental Evaluation and Cleanup Responsibility Assessment

c: Christine Lacy, BEERA Helen Dudar, BGWPA Paul Brustofski, Reichhold Chemicals, Inc.

June 16, 2009 NJDEP Letter



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

JON S. CORZINE Governor

MARK N. MAURIELLO Acting Commissioner

June 16, 2009

Gregory Simpson Textron, Inc. 40 Westminster Street Providence, RI 02903

APPROVAL

Re: Textron, Inc. Newark City, Essex County ISRA Case #s E85403 & E89281 SRP ID#015922

Dear Mr. Simpson:

The New Jersey Department of Environmental Protection (NJDEP) has completed a technical review of the Supplemental Remedial Investigation Workplan (RIW) dated June 1, 2009, and the email dated June 12, 2009. The NJDEP has determined that the RIW is in compliance with the Technical Requirements for Site Remediation, N.J.A.C. 7:26E and other applicable requirements. The NJDEP hereby approves the RIW, effective the date of this letter.

This approval also constitutes a New Jersey Pollutant Discharge Elimination System/Discharge to Ground Water (NJPDES/DGW) permit-by-rule discharge approval. It is hereby issued under the authority of the New Jersey Water Pollution Control Act, N.J.S.A. 58:10A-1 <u>et seq</u>. and the implementing regulations, N.J.A.C. 7:14A-1 <u>et seq</u>. Pursuant to N.J.A.C. 7:14A-22.4(b)5, a Treatment Works Approval is not required for discharges to ground water authorized pursuant to N.J.A.C. 7:14A-7.5(b). If the permittee maintains compliance with all other applicable conditions of N.J.A.C. 7:14A-7.5(b) and other applicable regulations, the permittee is deemed to have a permit-by-rule for the discharge or discharges described in this letter. The effective date for the new permit for this discharge, is the date on this approval letter.

Consistent with N.J.A.C. 7:14A-7.5(b)3vii the approved discharge(s) to ground water can exceed 180 days and is only to occur during the course of a site remediation that is being conducted in accordance with the Technical Requirements for Site Remediation, N.J.A.C. 7:26E, including the requirements of N.J.A.C. 7:26E-6.1 and 6.3(c).

This approval is conditional on Textron, Inc. submitting proof that it has recorded a public notice which indicates its intent to discharge to ground water at the above referenced site. Textron, Inc. shall publish the public notice in a daily or weekly newspaper of general circulation in the vicinity of the abovereferenced site. Textron, Inc. shall submit to the NJDEP proof of newspaper publication of the public notice within fifteen calendar days after the notice is published. Pursuant to the schedule applicable to the site, Textron, Inc. has proposed to submit a Remedial Action Report (RAR) on December 15, 2011. This is acceptable; however, Textron, Inc. shall also submit an Interim RAR on or before December 15, 2010 or submit a written request for an extension at least 2 weeks prior to this date. Failure to submit the RAR in accordance with the schedule may result in the initiation of enforcement action. For your convenience, the regulations concerning the NJDEP's remediation requirements can be found at www.state.nj.us/dep/srp.

Notes:

1. The NJDEP requires that a NJDEP representative be present during the monitoring of the wells around Building 13; therefore, Textron, Inc. shall contact Michael Buriani one week prior to implementing the proposed monitoring.

2. The need for soil remediation in the vicinity of area of concern (AOC) #8 will be pending the results of the additional ground water investigation in this AOC.

Thank you for your cooperation in this matter. If you have any questions, please contact the Case Manager, Michael Buriani, at (609) 633-1425.

Sincerely,

Maurice Migliarino, Section Chief Bureau of Industrial Site Remediation

c: Brian Kanzler, Reichhold, Inc. Richard Karr, MACTEC Marsha McGowan, Newark Dept. of Health

March 30, 1993 NJDEP Letter



RECEIVED DATE 4/1/93

MAR 3.0 1993

State of New Jersey Care NO Department of Environmental Protection and Energy Division of Responsible Party Site Reserved

CN 028 Trenton, NJ 08625-0028 COPy To

Scott A. Weiner Commissioner Statty Delanet. Director

CERTIFIED MAIL RETURN RECEIPT REQUESTED

Paul B. Duff Textron, Inc. 40 Westminster Street Providence, RI 02903

RE: Textron, Inc. Newark City, Essex County ECRA Case Nos. 85403 & 89201

Dear Mr. Duff:

The New Jersey Department of Environmental Protection and Energy (NJDEPE) has reviewed the Environmental Cleanup Responsibility Act (ECRA) Cleanup Progress Reports for the above referenced site, through January 13, 1993, and offers the following comments.

I. SOILS

A. PROPOSED CLEANUP GUIDANCE LEVELS

Textron, Inc. has refused to evaluate contaminant levels found at the site with respect to the current health based cleanup guidance levels, as requested in the NJDEPE letter dated October 20, 1992. Please be advised that all cases where remediation has not been completed, as evidenced by not having received the Department's statement of full compliance (ECRA Negative Declaration or Full Compliance letter), are considered to be active cases. Since Textron is involved with a passive recovery system for the contamination associated with the Loading Dock Area, Textron is likely to remain an active case when final cleanup standards become regulatory requirements. The NJDEPE will evaluate the effectiveness of the cleanup with the cleanup criteria in effect when Textron has completed the passive recovery effort associated with the Loading Dock Area. While the NJDEPE cannot require Textron to comply with the cleanup criteria described below, at this time, it is to the benefit of Textron to evaluate the remedial measures conducted on-site with the current cleanup criteria.

If Textron, Inc. does not wish to evaluate the site consistent with the cleanup guidance levels, a proposal that details the site specific circumstances and technical rationale for cleanup goals on a case-by-case basis may be submitted to the NJDEPE for its consideration. A review of this information will determine whether site specific alternate cleanup concentrations are applicable to the site that do not warrant further action on the part of Textron, Inc.

Textron, Inc. ECRA Case Nos. 854 & 89281 Page 2

The actual cleanup goal at a particular site is determined by the NJDEPE on a case-by-case basis and may be different than that in the above referenced cleanup criteria. This variation may be due to many factors, including, site specific human health and environmental exposure pathways, the presence of site contaminants not addressed in the rule proposal, and site specific physical characteristics.

Please note that the referenced guidance has been supplemented by the adoption of the Ground Water Quality Standards (N.J.A.C. 7:9-6) which appeared in the February 1, 1993 New Jersey Register. This rule adoption may impact requirements for ground water remediation and soil cleanup (i.e. where the soil may contribute contaminants to the ground water above the applicable standards) for a particular site and should be referenced and discussed with your case manager.

Please be advised that several compound cleanup concentrations have changed since February 3, 1993, due to new information that has become available. Enclosed is the NJDEPE's current health based guidance levels to be applied to the site when making the comparison.

B. NO FURTHER REMEDIAL ACTION REQUIRED

The proposal for no further action is acceptable for Areas 7, 8, 9, 125, 14, 15, 16, 17, 19, 21, 24, 25, the area around monitoring wells MW-7 and MW-15, and soil borings $1707\1712$.

C. FURTHER INVESTIGATION REQUIRED

Please be advised that the NJDEPE is rescinding the no further action determination for areas 2, 6, 10, 11, 12, 13, 20, 22, 26 and 27 pending a response from Textron, Inc. as referenced in item I.A. above. This response is due within 30 days upon receipt of this letter.

The Textron proposal for no further action at the following areas are unacceptable. These areas do not meet the current NJDEPE health based criteria for the referenced contaminants. As stated under item I.A. above, these areas will be re-evaluated using the cleanup criteria in place upon completion of the redress of the Loading Dock Area.

1. Area 1- joils at this location have been excavated to the practical extent possible. Elevated concentrations of benzene are present at locations P-98 and P-98A. This contamination poses a direct contact health risk and requires the installation of institutional controls. These concentrations may be left behind provided that the asphalt cover is properly maintained and a deed restriction is recorded for this location. This will require the concurrence of the property owner. Language to be incorporated in the deed restriction is enclosed for your use.

2. Areas 3,4, & 5- Soils in these areas have been excavated to the practical extent possible. Elevated levels of benzene and xylenes are present at locations P-76 and P-85. Additionally, the levels appear to increase in the horizontal direction beneath the tank farm at P-85. The contamination in this area has not been fully delineated. Textron, Inc. shall offer an explanation for this oversight. If remediation of this contamination is not feasible, then it will be necessary to include this contamination/area in the deed restriction.

Textron, Inc. ECRA Case Nos. 854 & 89281 Page 3

The cleanup performed at former soil borings 306/307 is acceptable.

3. Area 18- Elevated levels of benzo(a)anthracene and dibenzo(a,h)anthracene are present in this area. Additional contaminant delineation, to establish a decreasing concentration gradient, and the installation of this area into the deed restriction may be required.

4. Areas 23 & 24-Elevated levels of dibenzo(a,h)anthracene are present in these areas. Additional contaminant delineation, to establish a decreasing concentration gradient, and the installation of this area into the deed restriction may be required.

5. Area 28- Elevated levels of carcinogenic polynuclear aromatic hydrocarbons (CaPAH) exist at sample locations P-18 and P-17. The sample method detection limits for samples secured from this area were also elevated at 1.2 parts per million (ppm). Please note that, as the excavation was expanded in the easterly direction, the levels of CaPAH increased. Additional contaminant delineation, to establish a decreasing concentration gradient, remediation and/or the installation of this area

6. Area Around Monitoring Well MW-12- Elevated levels of benzo(a)pyrene are present in this area. Additional contaminant delineation and the inclusion of this area into the deed restriction may be required.

D. ONSITE TREATMENT AND SOIL REUSE

The average CaPAH concentration (1.43 ppm) in the post-treated soil is above the proposed non-residential cleanup guidance levels. The proposal for no further action is unacceptable at this time. Please be advised that a deed restriction for the locations where the soils were backfilled may be required in the future.

II. HYDROGEOLOGY

- A. The proposal not to reinstall monitoring wells MW-15 and MW-20, pending the results of the forthcoming quarterly round of ground water sampling, is acceptable.
- B. The proposal to reinstall monitoring well Ma-14 is acceptable.
- C. Textron, Inc. shall install an additional monitoring well downgradient of monitoring well MW-14 to delineate the contamination that was observed in MW-14 during the last two rounds of ground water sampling, prior to initiation of the soil cleanup.
- D. The proposal to monitor ground water at the site quarterly for volatile organic compounds plus a forward library search (VOC+10) for at least a year is acceptable. The wells to be sampled quarterly shall include MW-10, MW-20, MW-15, MW-14 and the additional well that is installed downgradient of well MW-14.
- E. If the levels of volatile organic compounds (VOC) detected in wells MW-10 and MW-14 do not decrease, ground water remediation may be required.

Textron, Inc. ECRA Case Nos. 854 89281 Page 4

- F. Reinstallation of well MW-13 is not required at this time since contaminant levels prior to soil cleanup were within ground water cleanup criteria.
- G. The proposal to reinstall monitoring well MW-11 and install MW-27 is acceptable. The proposal to sample these wells for VOC+10 for two consecutive sampling rounds is acceptable.
- H. The recovery trench is acceptable. The NJDEPE will determine the environmental fate of ground water at the site after a review of two rounds of sampling. Specifically, whether no further action, additional delineation, or additional remediation is required. However, if the first round of sampling indicates levels of VOs that warrant remediation, Textron, Inc. shall modify the operating trench system to accommodate ground water recovery.
- I. The proposal to remove the free-phase material from the stand-pipes and to monitor the reaccumulation for at least six months is acceptable. The proposal to upgrade the free-phase product removal and monitoring program, if necessary, is acceptable.

III. STATUS OF ASBESTOS CONCERNS

The July, 1992 asbestos survey performed at the site by Princeton Testing Laboratories, Inc. on the behalf of Textron, Inc. states that asbestos insulation requiring repair and/or removal is present at several locations on site. Please be advised that as per present NJDEPE protocol, the environmental fate of asbestos concerns at the site will no longer remain under the purview of the Environmental Cleanup Responsibility ACT (ECRA) since industrial operations are continuing at the site. This concern is being referred to the regional office of the Occupational Safety and Health Administration (OSHA). Additional actions to be performed on the part of Textron, Inc., and /or Reichold Chemicals, Inc., with respect to asbestos abatement will be determined by OSHA.

IV. TECHNICAL REQUIREMENTS FOR SITE REMEDIATION

The proposed "Technical Requirements for Site Remediation" rules appeared in the May 4, 1992 New Jersey Registar. These Proposed rules provide guidance concerning the environmental investigation and remediation at contaminated sites or sites at which contamination is suspected. Prior to promulgation, these proposed rules will be used as the Department's primary guidance document, replacing the Division of Responsible Party Site Remediation's Remedial Investigation Guide, the ECRA Cleanup Plan Guide, parts of the Bureau of Underground Storage Tank's (BUST) Scope of Work document (and appendices) and the BUST Technical Guidance Document.

Textron, Inc. shall notify the ECRA Cleanup Oversight case manager at least 14 days prior to performing any sampling and/or cleanup at the site. All samples shall be collected and handled in accordance with the May, 1992 edition of the NJDEPE Field Sampling Procedures Manual (FSPM). Analytical data submissions shall conform to the format outlined in the proposed Technical Requirements document. Field data pertinent to well purging shall be submitted as per the format outlined in the FSPM.

Textron, Inc. ECRA Case Nos. 854 89281 Page 5

. . .

Should any questions arise concerning the material addressed herein, please contact Sal Balakrishnan, the ECRA Cleanup Oversight Case Manager, at (609) 633-7141.

Sincerely,

il

Tessie W. Fields, Section Chief Bureau of Environmental Evaluation and Cleanup Responsibility Assessment

{ENCLOSURES}
c: Christine Lacy, BEERA
Helen Dudar, BGWDC
D.W. Bright, Reichold Chemicals, Inc.
Scott MacDonald, Environ, Inc.
Janet D. Smith, N.L. Industries, Inc.
Barry Sams, N.L. Industries, Inc.
Joseph McGinley, Newark City Health Department

January 24, 1996 NJDEP Letter





State of New Iersey

Department of Environmental Protection

Christine Todd Whitman Governor

> Paul B. Duff Textron, Inc. 40 Westminster Street Providence, RI 02903

Re: Administrative Consent Order (ACO) In the Matter of Textron, Inc. Newark City, Essex County ISRA Case #s 85403 & 89281

Dear Mr. Duff:

The New Jersey Department of Environmental Protection (NJDEP) has completed a technical review of the information submitted July 26, 1995. That information was sent in response to the NJDEP's February 22, 1995 letter. The following comments will serve as the NJDEP's technical response to that submittal. Textron, Inc. shall perform all actions outlined below and submit all required information within 30 calendar days of receipt of this letter.

I. SOILS ISSUES

1. Area of Environmental Concern (AEC) 11 and AEC 13.

No further information is required regarding the contents of the aboveground storage tanks at AEC 11 and AEC 13.

2. AEC 6

With regard to the former 3000-gallon underground storage tank (UST) in this area, Textron, Inc. has indicated that the elevated concentrations of base neutrals (BNs) are due to fill material. The NJDEP agrees with Textron, Inc.'s position. Information provided to the NJDEP for nearby/adjacent ISRA cases confirms that this portion of Newark contains historic fill material.

As indicated in the NJDEP's April 23, 1996 letter, even if the BNs are associated with the fill material on-site, Textron, Inc. is still required to perform a complete remedial investigation, including full delineation and characterization of those BNs. A review of prior sampling results indicates that BNs have been found throughout the site. These sampling results may be used, at least in part, to document that Textron, Inc. has fully characterized the historical fill material; however, additional sampling locations may be needed. In addition, Textron, Inc. may use visual observations and/or aerials photographs to supplement soil sampling results when documenting the extent of fill material. In light of the above information Textron, Inc. shall reevaluate its proposal for additional sampling on-site.

It does not appear as though the BNs were ever attributed to the fill material on-site. Rather, the BNs were previously addressed on an area of concern (AOC)-specific basis, implying that they were being associated with Textron, Inc.'s operations. At the present time, Textron, Inc. shall address the fill material pursuant to N.J.S.A. 58:10B-12, including establishment of engineering and institutional controls.





Robert C. Shinn, Jr.

Commissioner

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HEALTH & SAFETY

Page 2

3. AEC #8

Textron, Inc. has proposed to delineate the total petroleum hydrocarbons (TPH) in this area. Textron, Inc. shall clarify the location of prior sample 801 in relation to the proposed sample 805, and whether or not it is being horizontally delineated in accordance with the Technical Requirements for Site Remediation N.J.A.C. 7:26E. The proposed sampling depth for this area is 3.5-4 feet which Textron, Inc. indicates is the depth of the prior post-excavation samples. The USTs removed from this area were reported to be 3000 gallon capacity USTs. The diameter for a tank of this size is usually at least 5 feet; thus any post-excavation samples would be at least 5 feet deep. Textron, Inc. shall clarify this discrepancy. In addition, Textron, Inc. shall discuss the potential for contaminant migration beneath building 16 in this area.

4. Sewer Lines

Textron, Inc. has indicated that the combined sewer lines are immediately above the water table and not a likely source of soil contamination. Also, Textron, Inc. has indicated that ground water sampling is the most appropriate means to investigation potential impacts from prior sewer line leaks. This is acceptable; therefore, no soils investigation, associated with the sewer lines, is required at this time. However, if the levels of dissolved contamination do not decrease during the post-remedial monitoring, additional soil investigation may be required.

II. GROUND WATER ISSUES

1. AEC 11 and AEC 13

It appears as though Textron, Inc. may be confusing AEC 11 with AEC 13. Textron, Inc. has indicated that monitoring wells MW-4 and MW-5 address AEC 13. Based on a review of the on-site monitoring well locations, MW-4 and MW-5 are located approximately 100 feet from AEC 11, and 400 feet from AEC 13. Textron, Inc. shall clarify this issue.

2. Resinous Material

The proposal for no further action concerning the investigation of the resinous material, other than ground water monitoring, is acceptable provided the resinous material does not accumulate during the ground water monitoring period.

3. Product Removal

a. The proposal to remove the ethylbenzene, toluene, and xylene product mixture through the use of one recovery well is generally acceptable. However, in order for the NJDEP to issue an approval, Textron, Inc. shall first propose a monitoring program to determine the effectiveness of the product recovery, and to monitor residual contamination.

It is recommended that some of the former Hydro-punch locations be converted to monitoring points. A modified well construction can be approved for the monitoring points.

b. Textron, Inc. shall propose a discharge location for the recovered ground water. The discharge location will dictate the treatment level.

Page 3

4. Dissolved Contamination

a. The proposal to address all the dissolved contamination as one contaminant plume is acceptable.

b. The proposal to allow natural attenuation of all of the dissolved contamination is unacceptable due to the levels present. At several locations, the concentrations of dissolved contamination exceed 1% of the contaminants solubility. This high level indicates that residual contamination remains as a source. Remediation of the source is required before the NJDEP can approve a proposal for natural attenuation of the dissolved contamination. At the present time, Textron, Inc. shall submit a proposal for remediation of the residual contamination.

5. Standpipes

Textron, Inc.'s contention that the contamination detected within the standpipes is most likely the result of the resinous material and not the product blend is probably correct since the resinous material was made up of benzene, toluene, ethylbenzene, and xylene (BTEX). However, it should be noted that the dissolved concentrations in the standpipes have not decreased appreciably since the resinous product was removed in 1991 and 1992. Continued monitoring after the product blend and the residual product is removed will confirm this. If the levels start to decrease than it can be assumed that the contamination emanates partly or wholly from the product blend.

6. Influence of the Flume on the Ground Water Flow

a. Plum Creek which originates west of the Site drains 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. Textron, Inc. has indicated that the monitoring wells near the flume vary appreciably throughout the tidal cycle, and given the distance these wells are from Newark Bay the observed tidal influence must be due to ground water recharge and discharge through the wooden flume walls.

Based on the NJDEP's review of the water level measurements taken during a tidal cycle, the only internal shallow well that has demonstrated a tidal influence is well MW4. This well is located within 5' of the flume and is screened from 2' to 8' below grade. The other internal well that demonstrated a tidal influence is well MW25. This well is deep, with its screen from 28' to 40' below grade. It is unlikely that the tidal fluctuations in this well are the result of ground water recharge and discharge through the wood flume walls but are rather the result of the unit at this depth outcropping in Newark Bay.

b. Textron's statement that the flume is acting as a sink for ground water in this portion of the site, preventing the migration of ground water from Building #31 to other areas south of the plume can not be substantiated with the supplied information. Based on the information supplied, the depth to water measurements and the dimensions of the flume, it appears as though the flume depresses the water table and influences the flow of water of the top portion of the water table. The remaining water most likely discharges directly to Newark Bay. The location of the flume in relation to the water table is not given nor is the vertical hydraulic conductivity. Unless the flume is located at the base of the water bearing zone it is unlikely that it has enough pull to capture all of the water.

c. Textron states that the absence of BTEX contamination in the monitoring wells immediately south of the flume, wells MW4 and MW5, supports the

Page 4

conclusion that the flume acts as a sink for the ground water in this portion of the site. The data submitted to date indicates that this statement may not be accurate. Well MW4 is located approximately 5' from the flume. The water levels taken over a tidal cycle indicate that this well is hydraulically connected to the water within the flume. Based on the dendritic pattern of the contaminant distribution on the north side of the flume, the presence of a clean well, MW5, on the south side of the flume is not conclusive that the contamination has not migrated to the south.

Textron, Inc.'s statements concerning the extent of tidal influence shall be modified to reflect the data.

7. Dissolved Contaminant Delineation

Textron, Inc. has indicated that the extent of the elevated volatile organic compounds (VOs) in the ground water north and south of Building #31 has been delineated. A review of the latest round of ground water analytical data indicates that elevated levels of ethylbenzene, toluene, and xylene are present at the outer most sampling points located north and south of Building #31. Some of the levels indicate that residual contamination is present. Delineation of these levels should occur to determine if these levels are creating hazardous conditions at other ground water receptors beside the surface water bodies.

8. Ground Water Monitoring for Dissolved BTEX Contamination

Specific wells to be included into the effectiveness monitoring program will not be designated until Textron, Inc. addresses the residual contamination. The length of time post-remedial monitoring is to occur will depend on how Textron, Inc. addresses the residual contamination. At a minimum, monitoring will be required until there is no longer evidence of residual contamination.

Although Textron, Inc. has proposed one year of sampling based on a previous approval for post-remedial monitoring of an AOC, it should be noted that the contaminant levels involved in the referenced proposal were considerably less than what is being dealt with now.

9. Dissolve Contaminants Entering the Surface Water Body

a. As noted above, the NJDEP questions whether all of the contamination detected on either side of the flume discharges into the flume prior to being discharged into Newark Bay. The DEP contends that a portion of it discharges directly into the Bay. From a contaminant loading perspective, Textron, Inc.'s contention that all the ground water contamination discharges to the flume is a conservative approach in reference to the applicable cleanup criteria. The load capacity of the flume is considerably less than that of Newark Bay. Textron, Inc. shall conduct the same calculations using the 10 year/7 day low flow rate.

Textron has made the assumption that the ground water discharging to the flume from the south is not contaminated. A review of the analytical data indicates that this is not the case. This contamination is to be taken into account when calculating the acceptable loading.

b. Sampling of the flume water has not occurred. The requirement to sample the flume water will be dependent on the revised remedial method; however, it is recommended that Textron, Inc. sample the flume now to determine the actual contaminant concentration. The contaminant concentrations allowed will be dependent on the actual impact as well as the calculated impact to the surface
Page 5

water body. The NJDEP recommends that, at a minimum, two surface water samples be taken for VO analysis. The sampling locations shall address the water quality upgradient of the site and the water quality downgradient of the site.

If you have any questions, please contact the Case Manager, Michael Buriani, at (609) 633-1425.

Sincerely, Maurice Migliarino, Section Supervisor Bureau of Environmental Evaluation and Cleanup Responsibility Assessment

c: Christine Lacy, BEERA Helen Dudar, BGWPA Paul Brustofski, Reichhold Chemicals, Inc.

Supporting Document 9

October 31, 1991 NJDEP Letter

		Case NO 0288E	
Departme Divi	State of New Jersey ent of Environmental Protection sion of Responsible Party Site Rem	Subject on and Energy ediagoby To File Ju	lie Blawrince
	CN 028 Trenton, NJ 08625-0028 Tel. # 609-633-7141 Fax. # 609-777-4285		Kari J. Delanev
			Director

Scott A. Weiner Commissioner

> CERTIFIED MAIL RETURN RECEIPT REQUESTED

Paul B. Duff Textron, Inc. 40 Westminster Street Providence, RI 02903

Re: Textron Inc. - Spencer Kellog Division (Case #85403) Spencer Kellog- Newark Resin Plant (Case # 89281) Newark City, Essex County ECRA #s 85403 & 89281

Dear Mr Duff:

The Department of Environmental Protection and Energy (NJDEPE) has reviewed the following documentation submitted on behalf of the above referenced establishment: - Monthly Progress Reports dated April through September, 1991; - without April, - April 19, 1991 response letter on cleanup parameters:

- May 22, 1991 pre-remediation sampling results and work plan, we have samp result need WP
- Waste classification sampling results dated July 29, 1991.
- May 2, 1991 letter on asbestos concerns;
- results of ground water sampling dated June 14, 1991;
- Response letter dated September 23, 1991.

The NJDEPE has also received the results of additional pre-remediation soil and quarterly ground water sampling and, a cleanup implementation schedule dated September 16, 1991. We have

- The schedule of cleanup implementation dated September 16, 1991 is acceptable, however, Textron shall continue to modify it to incorporate any additional investigation and/or cleanup as required.
- The sampling results are currently being reviewed; comments based on the review will be provided under separate cover.

Textron shall submit the information requested in this letter with the monthly Progress Report due on or before December 15, 1991.

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I. SEPTEMBER 23, 1991 RESPONSE LETTER

The modifications requested in Environ's September 23, 1991 letter based on a draft review of this letter, have been incorporated with the exception of items IV. X. and L. These items shall remain as originally drafted.

II. APRIL, 1991 RESPONSE LETTER

- A. The contention that tentatively identified compounds (TICs) not classified as carcinogenic polycyclic aromatic hydrocarbons (CaPAHs) or volatile organic compounds (VOCs) will not be added to sample concentrations for determining compliance with cleanup criteria is basically correct, with the following exception. Compounds identified as unknown PAH's may be added to sample concentrations since several of the CaPAH's are TIC's.
- B. The proposal to exclude sampling for total petroleum hydrocarbons (TPHC) in pre-remediation and post remedial sampling is acceptable.

III. PRE-REMEDIATION SAMPLING RESULTS

A. Volume I.

The results of sampling are acceptable.

- B. Volumes II and III:
 - 1. The proposals for no further action for locations 1711, 1508, 1803, 805, 2110, B-7, B-8, B-9, B-10, AEC 6 and AEC 10 are acceptable.
 - 2. The remedial proposals at locations 308, 2803, 1712, 2304, 804, B-11 and B-12 are acceptable.

IV. ADDITIONAL PRE-REMEDIATION SAMPLING

The proposed "at-peril" additional sampling is acceptable.

- V. WORK PLAN
 - A. AEC 12: The remedial proposal is acceptable provided all contaminated soils under the building are removed. If some soils are inaccessible, a deed restriction shall be recorded for said soils. Deed restriction language to be used for the site is enclosed for your reference. Figures generated by Environ Corp. target soils south of Building 4 for remediation, but Canonie Environmental figures do not include this area in the remedial scheme. Textron shall collect a soil sample south of location 1202, but outside the building at the 18-24 inch depth interval to determine whether volatile organic (VO) contamination has migrated from under the building. Sampling parameters shall comprise VOs plus a forward library search (VO+15)

B. Base Neutral (BN) Hot Spot Excavations

The remedial proposal is acceptable.

- C. AEC 1: The remedial proposal is acceptable provided sample P-2 is relocated ten feet to the east.
- D. AEC 9: The remedial proposal is acceptable.

Textron, Inc. Cases 85403 & 8928 Page 3

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E. AECs 3, 4 and 5

The remedial proposal is acceptable with the following additions. Post-remedial samples shall also be collected along the property boundary and along the building, unless the foundation is so constructed as to impede contaminant migration under the building. If visible soil above the water table exists at the side wall, either between the footings, or between the base of the foundation and water table, samples shall be collected of this visible material. This data is required to determine the applicability of a deed restriction for inaccessible soils under the building.

- F. AEC 7: The remedial proposal is acceptable.
- G. AECs 14 and 16

The remedial proposal is acceptable. Please note that should post remedial data indicate significantly higher contaminant levels elsewhere along the rail siding, further excavation shall be required, and shall include location 1407.

H. AECs 17 and 25

The remedial proposal is acceptable.

- I. AEC 19: The remedial proposal is acceptable.
- J. AEC 21: The remedial proposal is acceptable.

K. Post Remedial Confirmatory Sampling

The proposed frequency of sampling and analytical parameters selected are acceptable. However, additional sampling is required along property boundaries to document potential off site migration of contamination (AECS 3-5). Any off site contamination found shall be delineated and remediated. Similarly, samples shall be collected along building walls, if the potential for contaminant migration under the building through the vadose zone exists. This would be the case if unsaturated soils exist between footings, or if the foundation does not extend to the water table (AECS 3, 17 and 25). This information is required to determine whether contamination exists under the building and the applicability of a deed restriction for inaccessible soils.

L. Stockpiling of Excavated Soils

Textron shall cover any stockpiled soils that are not treated within the same day of excayation in order to reduce fugitive emissions to the atmosphere, contaminant migration due to precipitation runoff and worker exposure to contaminated soils.

M. Excavation Debris

- 1. The proposal to dispose the excavation debris as non-hazardous waste material is acceptable.
- 2. The proposal to aerate impervious materials is acceptable.



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N. Low-Temperature Thermal Aeration Startup

- 1. The remedial proposal is acceptable.
- 2. The air emissions contingency plan (section 5.7) does not specify the locations where field instrument measurements to determine potential exceedance of applicable air quality standards will be taken. Please clarify this.

O. Excavated Soil Screening

Permeable debris such as railroad ties, concrete, etc., naturally occurring or not, shall not be used as backfill, since it is likely to have absorbed contaminants that are not released by simple aeration.

P. Post-Treatment Sampling

The proposal is acceptable provided no single VO or BN sample exceeds cleanup levels by more than a factor of ten.

Q. Health and Safety Plan

The plan is acceptable.

R. Quality Assurance Plan

The plan is acceptable.

VI. WASTE CLASSIFICATION RESULTS

Based on the Environ's February 25, and July 29, 1991 letters to Mr. Kurt Whitford of the Bureau of Hazardous Waste Classification at the NJDEPE, site soils are neither a listed nor a characteristic waste. As a result said soils are considered non-hazardous, thus eliminating the need for a RCRA TSD permit.

VII. ASBESTOS CONCERNS

The proposal to exempt Textron from any liability pertaining to potential asbestos concerns on site is unacceptable. The contention that asbestos was not discovered by the NJDEPE during prior site inspections, and that asbestos was not targeted as an environmental concern prior to 1986 is not valid. While it is acknowledged that asbestos concerns were not noted at the site until April, 1991, asbestos has been deemed an environmental concern since mid 1986 via the draft Sampling Plan Guide, and the Remedial Investigation Guide (March, 1990). Failure to note an environmental concern on the part of the NJDEPE in the past may not be used as a basis to exempt it from investigation.

The NJDEPE is cognizant of the difficulty in documenting the condition of asbestos containing materials (ACM) at the inception of this case. Also, it likely that significant deterioration of ACMs has occurred over the past several years of site operation. Hence, it is not feasible for the NJDEPE to assign a degree of liability for asbestos concerns at the site between Textron and N.L. Industries (N.L., ECRA Case #89281), the subsequent operator at the site. As a result, it the NJDEPE's position that asbestos concerns at the site shall be collectively addressed by N.L. and Textron. 1. 1. 1. A.



several locations. However, the document does not specify the condition of the materials and whether all ACMs at the site were identified. This shall be clarified.

Guidance on asbestos assessment is presented in pages 36-37 of the Remedial Investigation Guide (enclosed). Textron and N.L. shall perform an asbestos inspection at the facility as referenced in said document. Information generated from the initial investigation may be incorporated into the findings as appropriate. All friable and/or deteriorated ACMs shall either be properly encapsulated or removed in accordance with all applicable state, federal and local guidelines.

Textron and N.L. shall acknowledge the above referenced requirements in the next monthly Progress Report to the NJDEPE and shall amend the schedule of cleanup implementation to include resolution of asbestos concerns.

VIII. JUNE, 1991 GROUND WATER SAMPLING RESULTS

- A. Monitoring well MW-14 has shown an increase in VO contamination for the past two sampling episodes (86 ppm - January, 1991 and 39 ppm -May, 1991). Textron shall therefore determine the source of this contamination. If the source is other than that found in well MW-10, source removal/control shall be implemented as soon as possible. This shall include a proposal to delineate (vertical and horizontal) the plume. Ground water remediation shall be required if contaminant concentrations in well MW-14 persist.
- B. Future site plans shall depict the location of well MW-20.
- C. Well MW-2 has been observed to contain a black tar like substance. This well has been defined as an upgradient monitoring point. Textron shall prepare and submit ground water contour maps supporting this contention. Future data submittals shall include contour maps with the elevation measurements.
- IX. Textron shall notify this Bureau at least 14 days prior to the initiation of any sampling and/or cleanup activity at the site.

If you have any questions regarding this letter, please contact Sal Balakrishnan, Case Manager, at (609) 633-7141.

Sincerely, HL Corka

Tessie W. Fields, Acting Section Chief Bureau of Environmental Evaluation and Cleanup Responsibility Assessment

Enclosure c: Joseph Telafici, BEERA Helen Dudar, BGWDC Scott MacDonald, Environ Corp. D.W. Bright, Reichold Chemicals, Inc. Janet D. Smith, N.L. Industries, Inc. Joseph McGinley, Newark City Health Department

Supporting Document 10

December 9, 1996 NJDEP Letter



State of New Jersey

Department of Environmental Protection

Christine Todd Whitman Governor

Paul B. Duff Textron, Inc. 40 Westminster Street Providence, RI 02903

Re: Administrative Consent Order (ACO) In the Matter of Textron, Inc. Newark City, Essex County ISRA Case #s 85403 & 89281

Dear Mr. Duff:

The New Jersey Department of Environmental Protection (NJDEP) met with representatives of Textron, Inc. on November 25, 1996. The following comments will serve as the NJDEP's follow up technical response, based on that meeting and based on additional NJDEP review of the site-related issues after the meeting. Textron, Inc. shall perform all actions outlined below and submit all required information within 30 calendar days of receipt of this letter.

I. SOILS ISSUES

Currently, varying levels of base neutral organic compounds (BNS) remain onsite. Textron, Inc. compared the existing levels to the NJDEP's current cleanup criteria, as required in the NJDEP's March 30, 1993 letter, and provided a response in the June 28, 1993 report. As part of that response, Textron, Inc. indicated that due to the continued industrial use of the property, no public health or environmental risk exists, and no further evaluation or remediation is needed. In addition, Textron, Inc. stated that the BNS, with the exception of benzo(a)pyrene, meet the NJDEP's non-residential cleanup criteria. In its November 24, 1993 letter, the NJDEP gave a no further action (NFA) approval for the BNS in several areas of concern (AOCS). The NJDEP'S NFA approval was issued for the BN contamination in individual AOCS. Textron, Inc. has indicated that fill material was present on-site during the course of the investigation.

Sampling results submitted February 2, 1995 by the current property owner, Reichhold Chemicals, Inc., indicated the presence of over 150 parts per million (ppm) BNs in AOC 6 (former 5000 gallon #2 fuel oil underground storage tank), with individual compounds greater than 10 ppm. In its July 26, 1995 letter, Textron, Inc. stated that the BNs likely originate from the fill material. Textron, Inc. is required to further address the BN contamination associated with the fill material. During the meeting, Textron, Inc. agreed to reevaluate the data and submit maps and tables of all applicable data.

Due to the non-homogenous nature of fill material, the remedial strategy of "hotspot" removal referenced in the meeting appears to be an ineffective remediation technique and does not guarantee the removal of all contamination above a specific level. The presence of clean sample locations does not necessarily correlate to the presence of a "clean" zone. Therefore, the NJDEP can not accept Textron, Inc.'s current proposal. In order to further address the fill material, Textron, Inc. shall propose to collect soil samples throughout the site, at varying depths and away from operational areas, to document the concentrations of BNs associated with the fill material. However, the NJDEP can not recommend the sampling of historic fill due to the potential extensive effort required, and the likelihood of finding contamination above the appropriate levels. Unless Textron, Inc. can clearly document that the BNs in the fill material is within an order of magnitude of the NJDEP residential cleanup criteria, the NJDEP may not issue a NFA without a Declaration of

DFC - 9 1996

Environmental Restrictions (DER).

During the above referenced meeting, Textron, Inc. has indicated that it was opposed to the requirement for a DER, stating that Reichhold Chemicals, Inc. would require certain "encumbrances" in return for its agreement to record a DER. The NJDEP recommends that Textron, Inc. continue further discussions with Reichhold Chemicals, Inc. The NJDEP believes that a meeting to discuss the issue with both Textron, Inc. and Reichhold Chemicals, Inc. may be beneficial in resolving this. If Textron, Inc. agrees, then Textron, Inc. shall contact the NJDEP to schedule this meeting.

Please be advised that any new spills or discharges, or discharges not addressed under the February 8, 1991 Cleanup Plan approval shall be addressed using the NJDEP's current residential cleanup criteria. If it is Textron, Inc.'s contention that the BNs in AOC 6 are due to leakage from the former underground storage tank, this issue will be considered a new AOC. As such, Textron, Inc. shall meet the NJDEP's current residential cleanup criteria.

With regard to the proposed delineation sampling for the elevated total petroleum hydrocarbons (TPHC) in AOC 8, Textron, Inc. shall ensure that the sampling is done in accordance with the Technical Requirements for Site Remediation. Pursuant to N.J.A.C. 7:26E, Table 2-3, the samples shall be analyzed for TPHC. Also, Textron, Inc. shall analyze for polynuclear aromatic hydrocarbons on 25% of the samples where the TPHC concentration exceeds 100 ppm.

II. GROUND WATER ISSUES

Regarding the ground water issues, Textron, Inc. has agreed to submit a formal response to the issues raised in the NJDEP's September 4, 1996 letter.

If you have any questions, please contact the Case Manager, Michael Buriani, at (609) 633-1425.

Sincerely,

Stephen Maybury, Chief Bureau of Environmental Evaluation and Cleanup Responsibility Assessment

c: Christine Lacy, BEERA Helen Dudar, BGWPA Kelly Stynes, Reichhold Chemicals, Inc.

Supporting Document 11

October 29, 2010 RIR Form

New Jersey Department of Environment Site Remediation Program REMEDIAL INVESTIGATION REPORT	ental Pro FORM Subsurface	tection e Evaluator		Date Sta (For Departmen	mp t use only)				
SECTION A. SITE NAME AND LOCATION									
Site Name: Textron, Inc									
List all AKAs: Former Spencer Kellogg Facility, Reichhold Chemical, Reichhold, Inc.									
Street Address: 400 Doremus Ave.									
Municipality: Newark	(To	wnship, Bor	ough or Cit	y)					
County: Essexx	Zip	Code: 071	05						
Mailing Address if different than street address: 40 Westmin	ster St., Prov	vidence, RI 0	2903, Attn	: Greg Simpso	n				
Program Interest (PI) Number(s): SRI ID# 015922	Cas	se Tracking N	Number(s):	ISRA #E85403	8, #E89281				
Date Remediation Initiated Pursuant to N.J.A.C. 7:26C-2.2 or	2.3(b): 1 <u>2/</u>	/31/1992							
State Plane Coordinates for a central location at the site: East	sting: 5961	76.72	N	lorthing: 68721	8.29				
Municipal Block(s) and Lot(s): Block # 5070		Lot #	9						
Block # 5070 Lot # 9.01	Block #	5070		_ot # <u>11</u>					
Block # 5070 Lot # 11.01	Block #		I	_ot #					
Block # Lot #	Block #			_ot #					
Block # Lot #	Block #			_ot #					
SECTION B. REQUIRED TECHNICAL SUBMITTALS									
	Not Applicable	Included in this Submission	Previously Submitted	Date of Submission	Date of Revised Submission				
Immediate Environmental Concern Report	X								
Immediate Response Action Plans	X								
Preliminary Assessment Report	X								
Receptor Evaluation		\mathbf{X}							
Site Investigation Report	\mathbf{X}								
Remedial Investigation/Remedial Action Work Plan				6/1/2009					
Feasibility Study Report	X								
Response Action Outcome Report									
Permit Application	X								
SECTION C. SITE USE Intended Future Site Use, if known (check all that apply) Industrial Agricultural Residential Park or recreational use Commercial Vacant School or child care Government Other School or child care									

PAP-00145451

SECTION D. PUBLIC FUNDS																	
Did the remediation utilize public funds?									🛛 No								
If "Yes," check applicable: UST Grant UST Loan Brownfield Reimbursement Program																	
☐ HDSRF Grant ☐ HDSRF Loan ☐ Landfill Reimbursement Program ☐ Spill Fund ☐ Schools Development Authority																	
SECTION E. S	COPE	EOF	THE R	EME		/E	STIGA	TION	REPO	ORT							
Area(s) o	f Con	cern C	Only	(If sub	mitted fo	or s mit	pecific	AOC	(s), at	tach S	Section H2 of the	e P	A/SI f	orm.)			
Is the Reme	dial In	vestio	ation	comp	anu subi				ary As	562221		iya	uon)		\boxtimes	(es	
				<u>s</u>													
1. Check each standards/cr	media iteria:	a-type	and h	ighes	t concen	tra	tion of	conta	minat	ion cu	rrently present a	abo	ve an	y app	licable	;	
Soil in pp	m	G۷	V = Gi	round	Water i	n p	pb	SV	V = Si	urface	Water in ppb		Sec	d = Se	dime	nt in p	ppm
	Soil	GW	SW	Sed			Soil	GW	SW	Sed			Soil	GW	SW	Sed	
	ppm	ppb	ppb	ppm			ppm	ppb	ppb	ppm			ppm	ppb	ppb	ppm	
*VOCs					<100	1					100–1,000						>1,000
*SVOCs					<100						100–1,000						>1,000
*PAHs					<10						10–100						>100
*Metals					<100						100–1,000						>1,000
PCBs					<10						10–100						>100
*Pesticides					<1						1-10						>10
Dioxin (ppb)					<1 ppb	-					1-10 ppb						>10 ppb
Chromium					<100]					100–1,000						>1,000
Mercury					<100						100–1,000						>1,000
Arsenic					<10						10–100						>100
TPHC					<1,700						1,700–5,100		\mathbf{X}				>5,100
2. For any cont applicable re	amina media	ant gro ation s	oup (*) standa) chec ard:	ked abov	ve,	identif	y the	comp	ound/e	element with the	hi hi	ghest	conce	entratio	on ove	er its
Xylenes			Ber	zo(a)	oyrene												
3. Were the lab criteria requi	orato red fo	ry report	orting site?	minim	num dete	cti	on limi	ts belo	ow ap	plicab	le remediation s	tar	ndards	s/	🛛 `	Yes	🗌 No
4. Are any of th	ne foll	owing	condi	tions	currently	pr	esent	(check	all th	at app	oly):						
Groundwate	er:									So	il:						
Contamir	ated	groun	d wate	er in th	ne overbu	urd	en aqu	uifer			On-site dischar	ge(s) imp	acting	g soil d	off-site	Э
Contaminated ground water in a confined aquifer																	
	ated	groun	d wate	erinm	ultiple a	qui	fer uni	ts			Contaminated s	oil	in the	satura	ated z	one	
🔀 Multiple c	listinc	t grou	nd wa	ter plu	umes	•					Historic pesticid	e ir	npact	s to so	oil		
Contamir	ated	groun	d wate	er mig	rating off	f-si	te				Residual or free	pr	oduct				
	ed on ed arc	-site g ound v	rounc vater r	l wate	r plumes s from be	; oth	on-sit	e and			Radionuclides						
off-site so	ources	S				- 11	5.1 01				Soil contaminati	ion	due t	o natu	rally c	occurr	ing
Contaminated ground water discharging to surface water background conditions																	
🖄 Residual	I⊠ Residual or free product																

SECTION G. APPLICABLE REMEDIATION STANDARDS								
Indicate the Remediation Standards used for all compounds (check all that apply).								
 Default (check all that apply below) Direct Contact Impact to Groundwater Soil Screening Levels Ecological Screening Levels 								
Alternate Remediation Standards for the Ingestion/Dermal Pathway								
Alternate Remediation Standards for the Inhalation Pathway								
 Site Specific Standards for the Impact to Groundwater Pathway (check all that apply below) Soil-Water Partitioning Equation SPLP Sesoil Sesoil/AT123D 								
L Ecological Remediation Goals								
What is the ground water classification for this site as per N.J.A.C. 7:9C (check all that apply)?								
Class I-A								
Class I-PL Pinelands Preservation Area								
SECTION H. BACKGROUND CONDITIONS								
1. Have all contaminants found in soil and ground water on site been linked to on-site areas								
of concern?								
2. Did the RI demonstrate via a background investigation, outside the influence of on-site AOCs and operational areas, that:								
a. all or any part of the ground water contamination is migrating onto this site per								
b. soil contamination is naturally occurring per N.J.A.C. 7:26E-3.10								
SECTION I. ALTERNATIVE STANDARD / DEVIATIONS								
If proposing an alternative remediation standard pursuant to N.J.A.C. 7:26D-7.4, check here and attach the Alternative Soil Remediation Standard Application Form as an addendum.								
Deviation from regulations								
If the Licensed Site Remediation Professional has varied from the Technical Rules, provide the citation(s) from which the remediation varied and the page(s) in the attached document where the rationale for the deviation is provided.								
N.J.A.C. 7:26E Page								
N.J.A.C. 7:26E Page								
N.J.A.C. 7:26E Page								
SECTION J. HISTORIC FILL								
1. The presence of historic fill is supported by (check all that apply):								
☑ Boring logs ☑ Test Pits □ Trenches □ Aerial Photos □ NJDEP Mapped Areas □ No historic fill identified at the site. If none, skip to K. below.								
 2. How was the historic fill characterized pursuant to N.J.A.C. 7:26E-4.6 (check all that apply)? X Samples were collected outside areas potentially impacted by on-site operations (i.e., AOC(s)) X Contaminant levels in Table 4.2 at N.J.A.C. 7:26E-4.6 								
 Are any other AOCs (i.e. location of discharge and any contaminants that may have migrated from that area) located within the defined boundaries of the historic fill?								
 Have the same contaminant type(s) (e.g., lead, arsenic, and/or benzo(a)pyrene, etc.) characterized as being present in the historic fill been sampled for as a contaminant of concern at these co-located AOCs?								
SECTION K. GROUND WATER TRIGGER								
Was a ground water investigation conducted at all AOCs where a ground water investigation was triggered pursuant to N.J.A.C. 7:26E-4.4 (a)?								

SECTION L. GROUND WATER REMEDIAL INVESTIGATION INFORMATION	
 Were any monitor wells installed in unconfined aquifers in which the water table is higher than the top of the well screen?	🛛 No
If "Yes," identify the affected wells	
 If ground water in the bedrock aquifer is contaminated, were bedrock cores collected and/or were geophysical logging methods conducted to characterize the bedrock aquifer pursuant to N.J.A.C. 7:26E-4.4(g)5?	🛛 NA
SECTION M. LABORATORY DATA	
 Were all data submitted in the appropriate full and/or reduced formats according to the deliverables defined in N.J.A.C. 7:26E-2?	🗌 No
 Do all data submitted meet the quality assurance/quality control (QA/QC) requirements incorporated by reference in N.J.A.C. 7:26E-2 for: 	
analysis	
3. How was it determined that the data complied with the QA/QC requirements?	
Laboratory non-conformance summary/narrative	
X Other: Project Principal Review	
4. Has any data been gualified and used?	🗌 No
5. Has any data been rejected and used?	🛛 No
6. If clean fill has been brought onto the site, has it been analyzed?	🗌 No
7. Comments:	
SECTION N. MISCELLANEOUS	
1. Were any regulated USTs identified during the course of the RI that were not previously known? \Box Yes	🛛 No
If "Yes," list tank size, contents and registration number(s).	
 If "Yes," to item M.1. above and if these USTs were Federally Regulated, was the source/cause of release identified on a Confirmed Discharge Notification form?	🗌 No
If "No," complete and submit a revised Confirmed Discharge Notification form.	
3. Identify Remedial Measures (RMs) conducted during the RI (check all that apply):	
Potable water supply treatment or replacement Variation product recovery	
Soil vapor extraction	
Enhanced fluid recovery (EFR)	
X Other(s), specify: Installation and operation of iSOC system (Building 31/32), implemenation of ISCO (AO	
	<u>C8)</u>
 Did the remedial investigation include sampling to characterize any on-site contaminated media for either on-site or off-site reuse? 	<u>C8)</u>
 4. Did the remedial investigation include sampling to characterize any on-site contaminated media for either on-site or off-site reuse? 5. Has new information (material facts, data or other information) been generated during the RI that corrects or contradicts information, or changes conclusions from, previously submitted reports or 	<u>C8)</u> No

SECTION O. PERSON RESPONSIBLE FOR CONDUCT	ING THE REMEDIA	TION INFORMATION AND CERTIFICATION
Full Legal Name of the Person Responsible for Conductin	g the Remediation:	Textron
Representative First Name: Gregory	Representative	Last Name: Simpson
Title: Remediation Manager		A Present of the second s
Phone Number: (401) 457-2635	Ext:	Fax: (401) 457-6028
Mailing Address: 40 Westminster Street		
City/Town: Providence	State: RI	Zip Code: 02903
Email Address: gsimpson@textron.com	27 - 17	
Developer Certification Included Or Filed	C	Date of Filing
This certification shall be signed by the person responsibl in accordance with Administrative Requirements for the R	e for conducting the emediation of Conta	remediation who is submitting this notification minated Sites rule at N.J.A.C. 7:26C-1.5(a).
I certify under penalty of law that I have personally examinall attached documents, and that based on my inquiry of t information, to the best of my knowledge, I believe that that there are significant civil penalties for knowingly submomitting a crime of the fourth degree if I make a written that if I knowingly direct or authorize the violation of any stages.	ned and am familiar hose individuals imn e submitted informal hitting false, inaccura false statement whi tatute, I am persona	with the information submitted herein, including nediately responsible for obtaining the tion is true, accurate and complete. I am aware ate or incomplete information and that I am ich I do not believe to be true. I am also aware Ily liable for the penalties.
Name/Title: Gregory Simpson/Sr. Project Manager		No Changes Since Last Submittal 🛛

	······	
SECTION P. LICENSED SITE REMEDIATION	PROFESSIONAL INFORM	ATION AND STATEMENT
LSRP ID Number: 515695		
First Name: Brian	Last Name: Word	en
Phone Number: (609) 631-2926	Ext: 2926	Fax: (609) 689-2838
Mailing Address: American Metro Center, 200	American Metro Blvd.	
City/Town: Hamilton	State: NJ	Zip Code: 08619
Email Address: <u>blworden@mactec.com</u>		
This statement shall be signed by the LSRP wh Section 30 b.2.	o is submitting this notificatio	on in accordance with SRRA Section 16 d. and
I certify that I am a Licensed Site Remediation I New Jersey. As the Licensed Site Remediation	Professional authorized purs Professional of record for th	uant to N.J.S.A. 58:10C to conduct business in is remediation, I:
[SELECT ONE OR BOTH OF THE FOLL	OWING AS APPLICABLE]:	
☐ directly oversaw and supervised all of t ⊠ personally reviewed and accepted all o	he referenced remediation, a f the referenced remediation	and\or presented herein.
I believe that the information contained herein,	and including all attached do	cuments, is true, accurate and complete.
It is my independent professional judgment and submission to the Department, conforms to, and	opinion that the remediation is consistent with, the reme	n conducted at this site, as reflected in this adiation requirements in N.J.S.A. 58:10C-14.
My conduct and decisions in this matter were m knowledge and skill ordinarily exercised by licen with N.J.S.A. 58:10C-16, in the State of New Je	nade upon the exercise of rea nsed site remediation profes rsey at the time I performed	asonable care and diligence, and by applying the sionals practicing in good standing, in accordance these professional services.
I am aware pursuant to N.J.S.A. 58:10C-17 that representation or certification in any document significant civil, administrative and criminal pen- by imprisonment for conviction of a crime of the	t for purposely, knowingly or or information submitted to ta alties, including license revoo third degree.	recklessly submitting false statement, he board or Department, etc., that there are cation or suspension, fines and being punished
LSRP Signature: 19 Min T. M/a	A	Date: 10-29-10
LSRP Name/Title: Brian Worden/Principal Scie	entist	No Changes Since Last Submittal 🔀
Company Name: MACTEC Engineering and C	Consulting, Inc.	
Completed forms should be sent to:		
Bureau of Case Assignment & New Jersey Department of Er Site Remediation Program 401 East State Street, PO Bo Trenton, NJ 08625	& Initial Notice nvironmental Protection x 434	

New Jersey Department of Environmental Protection Remedial Investigation Report Form Comments

SUPPLEMENTAL REMEDIAL INVESTIGATION REPORT NO. 4 (dated Oct 2010) Former Spencer Kellogg Facility, Newark, New Jersey ISRA Case No. E85403 & E89281

Section B. Most recent submittals to NJDEP were the *Amendment to the Supplemental Remedial Investigation Report No. 3 for AOC8, Building #13, Building #31/#32 / AOC8 and Building #13 Remedial Action Workplan*(June 1, 2009), and email clarification of the scope to Michael Buriani (June 12, 2009). The initial *Supplemental Remedial Investigation Report No. 3 for AOC8, Building #13, and Building #31/#32 / AOC8 and Building #13 Remedial Action Work Plan* was submitted to NJDEP on April 10, 2009. Both documents outline the objectives of the Supplemental Remedial Investigation No. 4.

Section E. Supplemental Remedial Investigation No. 4 activities ARE specific to the following AOCs only: AOC8, Building #13, and Building #31/#32. Investigation and remediation activities at the Site commenced in 1992 and have continued through the present; a PA/SI Form was not completed during the initial phases of Site characterization and investigation.

Section F.

		Contaminant	COC (Highest Conc.	Highest Conc. (Sec. F
AOC	Matrix	Group	Only)	Checkbox)
AOC 8	Soil	VOC	styrene	Х
AOC 8	Soil	VOC	ethyl benzene	
AOC 8	Soil	TPHC	TPHC	Х
AOC 8	Groundwater	VOC	styrene	Х
AOC 8	Groundwater	VOC	ethyl benzene	Х
Building #13	Soil	TPHC	TPHC	Х
Building #13	Soil	PAH	benzo(a)pyrene	Х
Building #13	Soil	PAH	benzo(a)anthracene	Х
Building #31/#32	Soil	VOC	benzene	
Building #31/#32	Soil	VOC	toluene	Х
Building #31/#32	Soil	VOC	xylene	Х
Building #31/#32	Soil	VOC	ethyl benzene	Х
Building #31/#32	Groundwater	VOC	benzene	
Building #31/#32	Groundwater	VOC	toluene	
Building #31/#32	Groundwater	VOC	xylene	
Building #31/#32	Groundwater	VOC	ethyl benzene	

Item 1.

Item 4. Residual or free product detected during SRI No. 4 as sheen only not LNAPL as defined per N.J.A.C. 7:26E-1.8. The boxes were checked because LNAPL recovery was initiated in July 2009 at Bldg 31/32 under an approved RAWP (see section 4.2.2 of the enclosed RIR).

Section G. As noted on Figure 2-1 of the SRIR No.4, in accordance with prior NJDEP approvals, samples collected prior to 2008 were compared to the NJDEP Impact to Groundwater Soil Cleanup Criteria (IGWSCC) effective November, 2004; samples collected from 2008 through the present were compared to the NJDEP Default Impact to Groundwater Soil Remediation Standards effective June, 2008.

Section J. In May 1999 NJDEP confirmed that PAH levels in soils overlying the meadow mat were consistent with typical Historic Fill contamination levels and that no further action was required for PAHs.

Section N. The iSOC treatment process and free product recovery were initiated in 2009 under an approved RAWP. The results will be reported separately in Remedial Action Progress Report due for delivery in December 2010. A brief summary is provided in Section 4.2.2 of the enclosed RIR.

Supporting Document 12

January 30, 1989 NJDEP Letter



(609)633-7141

State of Dev Jersey DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF HAZARDOUS WASTE MANAGEMENT

Michele M. Putnam Deputy Director Hazardous Waste Operations

CN 028

Trenton, N.J. 08625-0028

John J. Trela, Ph.D., Director

Lance R. Miller Deputy Director Responsible Party Remedial Action

JAN 3 0 1989

Paul B. Duff Textron, Inc. 40 Westminster Street Providence, RI 02903

Dear Mr. Duff:

RE: Textron, Inc. -- Spencer Kellogg Division 400 Doremus Avenue Newark City, Essex County ECRA Case #85403

This is response to the "Presentation of the Phase II ECRA Sampling Plan Results and Remediation Strategy/Part I Cleanup Plan" dated June, 1988 concerning the above referenced facility. The document title refers to a "Cleanup Plan", however, the the proposal is actually an investigation/pilot study in order to develop an appropriate Cleanup Plan. This proposal (in-situ remedial investigation) is acceptable with the conditions outlined below, however it must be incorporated in a formal Cleanup Plan. The comments are in response to the data presentation and the next phase proposal.

- I. Sampling Results
- 1. The Department concurs with the contention that the metal contamination on-site is associated with the fill material. Due to the on-site conditions, the potential for public health exposure and contaminant migration is minimal, therefore remediation of metal contamination will not be required. However, due to the levels of metals found on-site, Textron, Inc. (Textron) shall provide documentation (i.e. map) which shows paved areas versus non-paved areas to determine if a deed restriction will be required.
- 2. Numerous inconsistencies in the Shallow Ground Water Results exist between the text and analytical results. Many levels of contaminants were detected but not reported in the text (MW3 total lead (Pb) of 83 ppb; MW4 total mercury (Hg) of 25 ppb; MW10 total Hg of 5 ppb; MW11 volatile organics (VO) of 95 ppb; MW22 total cadmium (Cd) of 13 ppb). In other instances, the text mentions contamination above ECRA guidelines but does not document the specific concentrations (Pb contamination in MW7; Pb in MW14; Cd and Copper (Cr) in MW16; arsenic (Ar), Cd, Chromium (Cr) and Hg in MW19). In addition, the text states that "the only volatile compound found in MW13 was ethylbenzene (110 ppm)", while Plate 6 indicates Volaitle Organic (VO) contamination of

only 93 ppb. This inconsistency must be explained. Please note that if the next round of data submitted has numerous inconsistencies the data will be rejected.

- 3. Textron indicates in several areas of the text the levels of contamination are not above "ECRA action levels". The data indicates that MW7 and MW11 both had VO concentrations in excess of "ECRA action levels" at 62 ppb and 95 ppb, respectively. In a similar situation, it is mentioned that "little contamination has been detected in the shallow ground water", while significant contamination has been observed in the data (MW10 34,000 ppb VO; MW13 93 ppb VO; MW7 128 ppb VO; MW11 133 ppb).
- II. Remediation Strategy/Part I Cleanup Plan
- 5. As previously stated, this proposal cannot be considered a "Cleanup Plan" since only investigative work is proposed in order to determine the most feasible remedial alternative.
- 6. The effectiveness evaluation of the in-situ soil remediation should include the treatment of PHC contamination <u>specifically</u>, in addition to VOs, not as a secondary benefit. PHC remediation will be required in many areas of the facility and therefore must be addressed in the Cleanup Plan when it is submitted.
- 7. Since no actual soil remediation is proposed at this time, the proposed method of handling the ground water contamination is unacceptable. Until source removal/control is proposed and implemented, Textron shall monitor the following wells on a quarterly basis for VO+15: MW10, MW13, MW14 and MW15. Quarterly monitoring shall continue for one year after source removal/control has been implemented, at which time the need for ground water remediation will be evaluated. Should any of the above mentioned monitoring wells become damaged, Textron shall immediately repair or replace the damaged well(s).
- 8. Textron shall install an additional monitoring well downgradient of MW10 at the location of soil boring 2501 (Phase I) to monitor the downgradient movement of contamination. This well shall be sampled for the same parameters and intervals as previously mentioned.
- 9. It should be noted that the development of a mathematical model to evaluate the potential migration of VO contamination in the shallow aquifer is not a Cleanup Plan. Also, the Solute Transport Modeling Analysis appears to assume source control, however this has not been established and should be taken into consideration when evaluating the model's predictions. The text also states that the toluene contamination will be reduced as a results of mixing when discharged to the underground flume. Dilution is not an acceptable cleanup proposal.
- III. Additional Requirements
- 10. Textron shall either properly abandon and seal or repair the floor drains in Building 26. If this has already occurred, documentation of such actions shall be submitted.

11. Upon thirty (30) days of the receipt of this letter, Textron shall begin to submit monthly progress reports concerning all activities being conducted at this facility. The first monthly report shall also include a detailed schedule of all proposed activities, including the ultimate submittal date of a formal Cleanup Plan. The Cleanup Plan shall include an evaluation of all cleanup alternations and rational for exclusion/inclusion of same. All other requirements as specified in N.J.A.C. 7:26B-5.3 shall be included in the Cleanup Plan.

This document was prepared by the Case Manager, Mark Fisher. If you have any questions, please contact the Case Manager at (609 633-7141.

Very truly yours, Ŕ

Peter P. Brussock, Ph.D., Section Chief Bureau of Environmental Evaluation and Cleanup Responsibility Assessment

MF/ng

c: William Storm, BEERA Helen Dudar, BGWDC

Supporting Document 13

April 7, 1994 NJDEP Letter



State of New Jersey Department of Environmental Protection and Energy

Robert C. Shinn, Jr. Commissioner

APR 7 1994

CERTIFIED MAIL RETURN RECEIPT REQUESTED

Paul B. Duff Textron, Inc. 40 Westminster Street Providence, RI 02903

Re: Textron, Inc. Newark City, Essex County ISRA Case #s 85403 & 89281

Dear Mr. Duff:

The New Jersey Department of Environmental Protection and Energy (NJDEPE) has completed a technical review of the progress reports dated October 15, 1993 and January 19, 1994. In addition, the NJDEPE has received the March 15, 1994 letter which was sent in response to the February 22, 1994 meeting between the NJDEPE and representatives of Textron, Inc. The following comments will serve as the NJDEPE's response to those documents. Textron, Inc. shall perform all actions outlined below, and submit a revised Remedial Action Workplan (RAW), within 30 calendar days of receipt of this letter. The RAW shall include an implementation schedule which addresses all areas of concern (AOCs) at the site.

SOIL REQUIREMENTS

1. As previously indicated in the NJDEPE's November 24, 1993 letter, reported concentrations of lead in AOCs 15, 17, 18, 20, 23, 25 and the area around monitoring well MW-16 are elevated above residential direct contact soil cleanup criteria. As indicated in the March 15, 1994 letter, Textron, Inc. indicated that it would submit a proposal to further address these areas. This proposal shall be submitted within 30 calendar days of receipt of this letter. Any proposal to leave this contamination in place shall also be accompanied by a proposal for engineering and institutional controls, as needed. In addition, if non-residential soil standards are being applied to the site, Textron, Inc. shall submit proof that the criteria listed in P.L.1993, c.139 (C.13:1K-9) are met, including whether the cost of implementing the residential standards.

2. In the NJDEPE's November 24, 1993 letter, it was indicated that the proposals for no further action at AOCs 1, 3, 4, and 5 were acceptable provided that engineering and institutional controls are implemented. In the March 15,

1994 letter, Textron, Inc. indicated that it would submit a proposal to further address these areas. This proposal shall be submitted within 30 calendar days of receipt of this letter.

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3. The NJDEPE has further evaluated samples P-85 and P-85A collected in AOC 4. Since the samples were collected between the high and low tide water tables, there is still the possibility of human exposure to the contaminated soils in the future if the take farm is ever dismantled. Therefore, Textron, Inc. shall submit a proposal to further address this area within 30 calendar days of receipt of this letter. As indicated above, any proposal to leave contamination in place shall also be accompanied by a proposal for engineering and institutional controls, as needed. In addition, if non-residential soil standards are being applied to the site, Textron, Inc. shall submit the information required in Item 1.

GROUND WATER REQUIREMENTS

4. The proposal for no further sampling of wells MW10, MW14, and MW28 is acceptable.

The proposal to suspend sampling of monitoring well MW11 is acceptable. 5.

The proposal to investigate the space between buildings 31 and 32 for the 6. presence of free-phase resinous material is acceptable.

7. The proposal to temporarily suspend the monitoring of the resinous material in AOC 3 is acceptable.

8. The proposal to suspend sampling of monitoring well MW27 is unacceptable since the levels of contamination have not decreased substantially and the source has not been determined. During the last sampling round, monitoring well MW27 contained 19.8 parts per million (ppm) toluene, 18.1 ppm m-xylene, 11.9 ppm o+p xylenes, 6.3 ppm ethylbenzene, and .8 ppm benzene. In light of this information, Textron, Inc. shall submit a proposal to remediate this ground water contamination. The proposal shall include the following information:

- a. the method of ground water removal,
- b. the discharge location of the recovered ground water,
- the proposed treatment method, and c.
- a monitoring program (to document hydraulic control and ground water d. quality).

Please be advised that pursuant to the Ground Water Quality Standards (GWQS), N.J.A.C. 7:9-6, the ground water on-site is classified as Class II-A. The ground water cleanup levels for Class II-A ground water are the ground water quality criteria listed in Table 1 of the GWQS.

MISCELLANEOUS

9. On January 14, 1994, Acting Commissioner Fox signed the ISRA Fee Rule (Amendments and New Rules at N.J.A.C. 7:14B) which was proposed on April 5, 1993. This rule appeared in the February 22, 1994 State Register. Effective February 22, 1994, the NJDEPE will be billing Textron, Inc. for the NJDEPE's oversight of all work conducted at the site. Documents submitted to the NJDEPE in accordance with the "Technical Requirements for Site Remediation" (N.J.A.C. 7:26E) will help reduce the time necessary for the NJDEPE oversight of your case. At this time, the NJDEPE intends to process bills on a semi-annual basis. Please consult the April 5, 1993 and February 22, 1994 State Registers for details. Copies can be obtained by contacting the Office of Administrative Law at (609) 588-6500.

10. P.L. 1993, c.139, section 25, allows for a change of the amount in the remediation funding source as the cost estimate changes. Textron, Inc. shall evaluate the current estimated cost of the remaining remediation required at the site. If the current estimated cost is <u>greater</u> than the remediation funding source, Textron, Inc. shall increase the remediation funding source to an amount at least equal to the new estimate. If the current estimated cost is less than the remediation funding source, Textron funding source, Textron, Inc. may submit a written request to the NJDEPE to decrease the amount of the funding source.

11. Enclosed is a Dispute Resolution Guidance document, created pursuant to P.L. 1993, c.139. This document establishes the procedure through which a person conducting a remediation of a contaminated site with NJDEPE oversight may dispute a NJDEPE decision concerning the remediation.

If you have any questions, please contact the Case Manager, Michael Buriani, at (609) 633-7141.

Sincerely,

Carol Rom J. Keck (for

Maurice Migliarino, Section Supervisor Bureau of Environmental Evaluation and Cleanup Responsibility Assessment

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enclosure

c: Christine Lacy, BEERA Helen Dudar, BGWPA

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Supporting Document 14

April 3, 1990 NJDEP Letter



State of Den Jersey DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF HAZARDOUS WASTE MANAGEMENT

CN 028 Trenton, N.J. 08625-0028 (609) 633-7141 Fax # (609) 633-1454

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RECEIVED

CERTIFIED MAIL RETURN RECEIPT REQUESTED

APR 3 1990

Paul J. Duff Textron, Inc. 40 Westminster Street Providence, Rhode Island 02903

Dear Mr Duff:

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Re: Textron, Inc.--Spencer Kellogg Division Newark City, Essex County Cleanup Plan Dated: January 17, 1990 ECRA Case #85403

The Department has completed its review of the above referenced document and has determined that there is currently insufficient data to approve the proposed Cleanup Plan at this time. Additional sampling is required at many areas of environmental concern where remediation and no further action are proposed. The sampling prescribed below shall be completed and a revised Cleanup Plan shall be submitted within ninety (90) days upon the receipt of this letter. Each area of concern is detailed below with the minimum additional sampling requirements provided. Additionally, it is acceptable for Textron to initiate the field and $N_{\rm P}$ pilot activities for the proposed bioremediation while this additional sampling is being conducted.

SOILS - General

1. Textron, Inc. (Textron) is primarily proposing limited bioremediation for remediation of the contaminated soils on site. While this approach would be generally acceptable, Textron is reminded that several of the constituents identified in the petroleum hydrocarbon (PHC) fingerprinting analyses (i.e. polycyclic aromatic hydrocarbons, and other base/neutral compounds present in coal tar and fuel oil) are resistant to bioremediation. For this reason, Textron is shall included a contingency plan for the excavation and off-site treatment of all soil contamination should the bioremediation approach indicate that cleanup levels are not being achieved. This contingency should include a cost estimate and revised time schedule.



Included in the Department's letter dated January 30, 1989 was a statement which concurred with Textron's position that the site wide metal contamination is the result of contaminated fill deposited during the facilities initial construction. Also, the possibility regarding the need for a deed restriction was brought to your attention. The Department has decided that a deed restriction shall be required for the metal contamination. Attached is standard language which should be included in the deed. The primary purpose of the deed restriction is notify the current owner, and any subsequent owner of the presence of the metal contamination in the fill at the site. Also, it will require the site to remain as industrial property only and restricting its use for The metals which are of concern are lead, mercury, residential purposes. cadmium, arsenic, copper, and zinc. The Department realizes that Textron does not current hold title to the property, however, this does not negate Textron's obligation to ensure that this language is incorporated in the deed.

3. Since the PHC fingerprinting analyses indicated a serious base/neutral (B/N) problem at the site, characterization and confirmatory sampling for these compounds via B/N plus an additional fifteen peaks (B/N+15) analysis is required in many locations. It is acceptable for these analyses, as specifically discussed below, to be conducted during the proposed additional field/pilot testing. The sampling required below will aid in determining a more site specific cleanup goal, as well as determine if bioremediation is feasible in all areas. Additional verification sampling is also required as indicated below for other parameters to provide further definition of the areas to be remediated and support the "no further action" approach for other areas.

4. Given the extremely elevated levels of PHCs on site (both hazardous and non-hazardous) and the elevated B/N mean detection limits (MDLs) which are likely to result from this, Textron is required to conduct B/N sampling where required using these guidelines:

a) Analyze all B/N+15 samples by first performing matrix cleanup and alumina partitioning (EPA Methods 3650 and 3611, respectively);

b) Collecting a second sample at each point to be analyzed for PHCs (EPA Method 418.1). B/N+15 samples may then either be pre-extracted or fast-tract PHC analyses performed, followed be matrix cleanup and subsequent analyses for B/N+15 performed only on those samples with PHC concentrations greater than 500 ppm.

This shall be required for all samples required to analyzed for B/N+15, unless specifically indicated below.

<u>SOILS</u> - Specific

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Areas Targeted for Remediation

5. Areas of environmental concern (AECs) 1, 3, 4, 7, 12, 13, 14,

15(portions), 16, 17(portions), 19, 21, 23, and 25 are targeted for remediation, which in most cases is bioremediation. However, since the extremely elevated PHC concentrations may also include B\Ns, which have never been analytically evaluated, sampling for B\N+15 is required prior to implementation of the bioremediation. All borings which previously resulted in PHCs over 500 ppm shall be sampled as follows: 0-6" below the pavement; 0-6" above the water table; and, at the midpoint of the boring if the water table is deeper than 3'. In addition, since horizontal delineation has not been completed, one boring shall be completed per 30 linear feet around each AEC proposed for bioremediation, excluding those portions which border on buildings or other structures. Samples shall be collected from each boring at 0-6" below the asphalt, 18-24", and 6" above the water table. Analyses shall be for B\N+15 at the surface, VO+15 at 18-24", and B\N+15 and VO+15 above the water table.

Exceptions to the above requirements are AECs 7, 12, 15, and 19. AEC 7 shall be sampled for VO+15 only since this the solvent tank truck unloading area. AEC 12 will be excavated to the water table, which is acceptable provided that sidewall samples are collected every 30' for B\N+15 and VO+15. AEC 15 may be delineated for VO+15 only due to previous sampling. Since AEC 19 is surrounded by a concrete dike, only vertical characterization for B\N+15 is required.

The sampling required above can be completed while the proposed additional field and laboratory activities are being conducted prior to implementing the full-scale bioremediation.

Areas Proposed for No Further Action

6. AEC 2: Dumpster/Trash Compactor Area - The previous boring in this area (#201) was conducted at 6-18" for VO+15. Before a no further action (NFA) approach can be accepted, the former boring location shall be sampled at 0-6" for $B\setminus N+15$ and at 18-24" for VO+15.

7. AEC 5: Phthalic Anhydride Unloading Area - Despite the fact that no method is available to analyze for phthalic anhydride, a minimum a one boring shall be collected in this area to confirm that no other contamination is present before the NFA approach can be accepted. This area is immediately adjacent to AEC 4, where elevated levels of PHC and VOs are known to exist and not delineated. Samples shall be collected at 0-6" below the pavement for B\N+15 and at 18-24" for VO+15. This boring may serve a duel purpose in delineating AEC 4 as well.

8. AEC 6: Fuel Oil Underground Storage Tank (UST) - Previous sampling is inadequate. Sample collection occurred at 1-2' below grade, instead of 0-6" below the tank invert. Before accepting the NFA approach for this area, one boring shall be completed within one foot of the east and south sides of the tank. Samples shall be collected at 0-6" below the tank invert for $B\setminus N+15$ or at 6" above the water table, whichever is encountered first.

9. AEC 8: Two Fuel Oil USTs - Previous sampling indicated PHC levels of

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13,500 ppm and 10,900 and polycylic aromatic hydrocarbon (PAH) levels of 23 ppm. Thus, the contamination present cannot be attributed to food-stuffs. Samples shall be collected from 0-6" below the tank inverts at either end of the two tank area and west of the center of each tank to be analyzed for B\N+15. Since remediation will be required in this area based on the previous data, excavation with appropriate post-excavation sampling is also acceptable.

10. AEC 9: Discharge of Raw Materials and Resin Through Floor - Previous sampling resulted in 869 ppm of toluene, and mean detection limits (MDLs) as high as 120 ppm. Complete delineation for VO+15 and B\N+15 is required for this area. This shall encompass at least three borings around former boring 901. The use of an OVA or PID may useful to define the extent of this contamination. While remediation may not be feasible since this area is beneath the building, characterization is required for inclusion of this area in the deed restriction previously mentioned.

11. AEC 10: Finished Product and Raw Materials Storage - Sampling previously conducted in this area indicated PHCs above 1500 ppm and PAHs being identified in the fingerprint analysis. The NFA approach is unacceptable at this time. One boring shall located in this area to be analyzed for B\N+15 at 0-6" below the pavement and 6" above the water table. A n additional sample shall be collected from the midpoint of the boring if it extends beyond three feet.

12. AEC 13: Former Above Ground Storage Tank (AST) Area - Number 6 Fuel Oil was revealed in the fingerprint analysis of the PHCs found in this area (up to 1300 ppm). Two borings shall be located in this area with sampling conducted a per condition # 11, above. The acceptance of the NFA approach will be re-evaluated based on these results.

13. AEC 15: Former Drum Storage Area - While the northern portion of this area is targeted for remediation, no further action is proposed for the southern section. Characterization for $B\setminus N+15$ and VO+15 shall be conducted as per condition # 5 of this letter before a NFA approach can be evaluated.

14. AEC 17: Former Drum Storage Area - As in AEC 15, the northern portion of this area is scheduled for remediation while the southern portion is to receive NFA. Boring 1701 resulted in PHC concentrations of 1390ppm; boring 1704 resulted in PHC concentrations at 2160 ppm, with constituents identified as lubricating oils and other PAHs; boring 1705 indicated PHCs at 450 ppm made up of coal tar, fuel oil and lubricating oil. Previous VO sampling was conducted above 18". For these reasons, the NFA approach is unacceptable at this time. Sampling in the vicinity of borings 1702, 1703 and 1705 (one boring will suffice), at boring 1701/1704 area, and a in the south-eastern corner of this area shall be conducted as per comment # 5 of this letter for B\N+15 and VO+15.

15. AEC 18: Fuel Oil Unloading Area - PHC characterization was not preformed in this area. Confirmatory sampling for B\N+15 shall be conducted at boring 1801 before the NFA approach can be accepted.

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16. AEC 20: Former Gasoline UST - The NFA approach is acceptable for this area.

17. AEC 22: Concrete Pad for Drum Storage of Premix 1285 - Resampling of this area shall be conducted around the perimeter of this pad (within 5" of the pad) at a frequency of one boring per 50 linear feet, biased towards run-off. Samples shall be collected at 0-6" for B\N+15 and at 18-24" for VO+15. This is required due to the fact that previous sampling, conducted 15' away from this area resulted in PHC and VO contamination, improper sampling depths for VO+15 and elevated MDLs for VOS. Based on the results, remediation may be required.

18. AEC 26: Drains from Large Tank Farm - Textron proposes NFA due to the fact that the drains are now plugged. This is unacceptable. These drains discharge run-off and potential spills from the 38 tanks to the soil. Therefore, all discharge points shall be sampled for B\N+15 at 0-6" and for VO+15 at 18-24". The NFA cannot be evaluated until this sampling is completed.

19. AEC 27: Former Drum Storage Area - The NFA approach for this area is acceptable.

20. AEC 28: Railroad Siding Runoff Discharge Pipe - The NFA approach cannot be accepted until the boring in this area is sampled for $B\setminus N+15$ (0-6") and for VO+15 (18-24"). This is required since PHC data was elevated and no $B\setminus N$ data exists and since the VO sample was collected from the 1-1.5' interval.

21. Significant soil contamination (PHC and PAH) was identified during the installation of many monitoring wells. Soil borings shall be located immediately adjacent to monitoring wells 7, 12, 15, 16, 17, 18, and 26 and sampled for B\N+15 at 0-6", VO+15 at 18-24" (MW 7 only), and at 6" above the water table for B\N+15. Additionally, the contamination shall be horizontally defined via a minimum a\of three boring located around each well (at a distance of 10' or as guided by field screening devises). Remediation shall be proposed for the soils around MW 6, MW 22, and MW 23 and will not require additional sampling if proper post-remedial sampling is conducted. While additional contamination was encountered at other MWs, these areas are being addressed via sampling within specific AECs.

HYDROGEOLOGY

22. Textron shall continue the quarterly ground water monitoring for VO+15 of MWs 10, 13, 14, and 15 while the above referenced sampling is being conducted. This sampling shall continue for a period of one year after the soil remediation is completed. Textron is advised that should the soil remediation not provide sufficient decrease in the ground water contamination, then a ground water cleanup will be required. A contingency plan for the remediation of the ground water contamination shall be included in the revised Cleanup Plan. Based upon the data available, it appears that the ground water contamination is restricted to a relatively small area within the fill material. Therefore, an extensive system would likely not be required to address this contamination. Because of this, the concerns previously discussed by Textron regarding additional contamination resulting from pumping the ground water are not justified.

23. Textron is advised that if water is to be injected into the ground as part of the remedial approach, then a NJPDES Discharge to Ground Water permit will be required. An application for this permit can be obtained by contacting the Bureau of Information Services at (609) 984-4428. This permit must be in place prior to discharge activities.

24. The desrepancies in the ground water previously submitted have not been clarified. This was originally requested in the Department's January 30, 1989 letter. Please submit this information within thirty days upon the receipt of this letter. Failure to submit this information may result the need for additional ground water sampling.

ECRA Requirements for Data Presentation and Proposals

A. Data Requirements

The following information shall be included with the results of sampling.

- 1. Logs for all soil borings and wells.
- 2. Soil profile logs for all excavations.
- 3. Monitoring Well Certification Forms: Form A (As-Built Certification) and Form B (Location Certification) shall be completed for each monitoring well installed. Form A shall be submitted with the results of sampling. Because additional wells are sometimes required to complete a hydrogeologic investigation, Form B may be submitted after completion of the installation of all required ground water monitoring wells, unless required prior to that time by the Department. As-built diagrams of all wells shall be included with Form A.
- 4. A scaled site map of all well and soil boring locations.
- 5. A minimum of two (2) ground water contour maps, including depth to ground water and reference point elevation, with depth to water readings taken at least thirty (30) days apart. If applicable, depth to water readings taken prior to purging shall be used for contouring purposes. Any corrections made to the static water level due to the presence of free product shall be reported, along with the thickness of the product layer.
- 6. Ground water samples shall be collected a minimum of two (2) weeks following development of the wells.
- 7. At a minimum, the following purge information shall be provided

along with the analytical results: date and time of purge, depth to water before purging, purge method, estimated volume of purged water, depth to water after purging, date and time of sampling, depth to water before sampling, and sampling method.

- 8. Provide in a tabular format the results of sampling. Include the sample number, location, interval and depth of sample, sample matrix, and the analytical methods used. The enclosed summary format sheets are provided as guidance for summarizing data.
- 9. A site map which lists the concentrations of all significant contamination found (above ECRA action levels) at all sampling locations. The labelling of data should be keyed to facilitate interpretation, especially at locations where more than one type of contaminant is found. The use of contaminant isopleth maps is also encouraged.
- B. Data/Results Presentation
 - 1. Because of case management workloads and volumes of data to be reviewed and processed, the above noted formatting requirements essential to insure complete and timely review of the submittal.
 - 2. Tier II deliverables should be identified and separated from the submittals, discussion, conclusions, and data summary sheets. The enclosed Laboratory Deliverables checklist should be completed and returned with the Tier II deliverables.
 - 3. All submittals of text/data shall be forwarded in triplicate and shall be properly paginated, bear a table of contents, and be bound (1 copy may be unbound for filing purposes).
 - 4. Failure to organize submittal information as outlined above can constitute reason to return the submittal to the consultant for correction and resubmission, thus causing further delay in case processing.
 - 5. Failure to address these conditions and provide documentation where required shall constitute non-compliance with ECRA. No final approvals or case closure will occur until these issues are resolved.

As previously specified, the results from this investigation shall be submitted with a revised Cleanup Plan within ninety (90) days from the receipt of this letter. This document was prepared by the Case Manager, Mark Fisher. If you have any question concerning the document, please contact the Case Manager at (609) 633-7141.

Sincerely,

Kenneth T. Hart, Chief Bureau of Environmental Evaluation and Cleanup Responsibility Assessment

cc: Joseph Telafici, BEERA Helen Dudar, BGWDC Scott MacDonald, Environ Janet Smith, NL Industries Newark Division of Health

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PAP-00145475

Supporting Document 15

March 27, 2014 AOC8 LNAPL RIR Form



March 27, 2014

Bureau of Case Assignment & Initial Notice Site Remediation Program New Jersey Department of Environmental Protection 401-05H PO Box 420 Trenton, NJ 08625-0420

RE: Remedial Investigation Report Form, Updated Receptor Evaluation Form and LSRP Supporting Documentation AOC8 LNAPL Remedial Investigation Report dated March 27, 2014 Textron, Inc. (aka. Former Spencer-Kellogg Facility) 400 Doremus Ave. Newark, NJ 07105 SRI ID# 015922, ISRA #E85403/E89281

Dear Sir or Madame:

AMEC Environment and Infrastructure (AMEC) is submitting this letter to provide supporting documentation for the enclosed Remedial Investigation Report (RIR) Form, updated receptor Evaluation (RE) Form and accompanying AOC8 LNAPL Remedial Investigation Report dated March 17, 2014.

The following information is provided to clarify and/or substantiate the selection or answers contained on certain sections of the RIR and RE Forms:

<u>RIR Form – Page 1. Section B. Number 2:</u> Is a Classification Exception Area (CEA) Proposal included with this submission?

No was checked, justification follows.

Site COCs were detected at concentrations above the GWQS in groundwater samples collected at AOC 8 during this RI. A CEA proposal has not been included in this submission because there is an existing CEA (CEA ID #2215) currently in place for non-historic fill contaminants and Textron proposes to modify the existing CEA footprint to include these monitoring wells and sampling points located in AOC 8. The Historic Fill parameters detected (PAHs) in groundwater at concentrations above the GWQS will be included in a separate CEA application for site-wide groundwater contamination caused by the Historic Fill (see RIR text, section 5.4.1). Textron will submit the CEAs separately from this RIR pursuant to the CEA/WRA Fact Sheet Form Instructions.

<u>RIR Form – Page 3. Section G. Number 4:</u> Were the laboratory reporting minimum detection limits below applicable remediation standards/screening levels required for the site?

No was checked, explanation follows.

Section 4.4.5 of the Report text provides a detailed discussion of each instance in which the laboratory minimum detection limits exceeded the applicable remediation standard or ecological screening level. In general, the elevated MDLs were not significant and did not affect the overall usability of the data collected during this RI.

<u>RIR Form – Page 4. Section K. Number 2:</u> Was the historic fill characterized pursuant to N.J.A.C. 7:26E-4.7 and the NJDEP Historic Fill Material Technical Guidance Document?

No was checked, explanation follows.

The Historic Fill at the site, including the AOC for which this RIR is submitted, was characterized long before the issuance of the NJDEP Historic Fill Material Technical Guidance Document and NJDEP has previously issued letters to Textron acknowledging the existence of historic fill site-wide.

<u>RIR Form – Page 5. Section M. Number 4:</u> Is contamination in ground water fully delineated?

Yes was checked, additional information follows.

Delineation of groundwater contamination at the AOC for which this RIR is submitted has been completed. However, during the course of this RI, it was determined that another, previously unidentified, AOC was the cause for elevated ethylbenzene and xylene contamination in groundwater at sample location 13-1. Based on lines of evidence presented in the RIR, it is likely to be a historic AOC. Additional sampling may be needed to complete the delineation of groundwater contamination in this area. See also comment in Section P, number 2 below. This matter is discussed in greater detail in sections 5.2.3.3 and 5.4.2 of the Report.

<u>RIR Form – Page 5. Section N. Number 3:</u> **Do the results of the Ecological Evaluation** require a remedial investigation of ecological receptors? If "No," provide explanation.

No was checked, the explanation follows.

An Ecological Evaluation (EE) was previously performed for the site in September 2012. The EE concluded that Ecologically Sensitive Natural Resources (ESNRs) are located adjacent to the site and contaminants of potential ecological concern (COPECs) are present within surface soils, flume water and groundwater found at the site. However, migration pathways from contaminated media to ESNRs are incomplete. Therefore, the site does not warrant further ecological investigation as per *NJAC 7:26E-3.11*. The re-evaluation conducted herein as part of the conceptual Site Model (CSM) did not identify any new migration pathways (see section 4.1) and the IRM that was implemented/ ongoing is sufficient to prevent offsite migration of contaminants while determining appropriate final remedial actions (see sections 3.4 and 5.3).

<u>RIR Form – Page 6. Section P. Number 2:</u> Were additional Areas of Concern identified during the RI? If "Yes," identify AOC(s).

Yes was checked. The AOC appears unrelated to the ISRA #E85403/E89281 case numbers; additional information follows.

As noted above, during the course of this RI, multiple lines of evidence indicated that another, previously unidentified, AOC was the cause for elevated ethylbenzene and xylene contamination at groundwater sample location 13-1. Based on the lines of evidence presented in the RIR, it is likely to be a historic AOC. As noted in this RIR, the finding does not present an immediate environmental concern (IEC) condition. The current property owner (Reichhold) was apprised of this preliminary finding in a meeting held on January 16, 2014. Because the plant shutdown has triggered ISRA for the property owner, an LSRP has been hired by them to oversee the PA/SI. As such, they are currently conducting their due diligence evaluation of all potential AOCs on the site and will be including the sample 13-1 information in the evaluation accordingly.

As it appears to be a historical release, in accordance to 7:1E-5.2 Notification of Historical Discharges, responsible parties are required to "conduct a diligent inquiry and shall promptly upon completion of the diligent inquiry and discovery of a discharge notify the Department in writing of such discharge at the address given at N.J.A.C. 7:1E-5.8(f)". As noted above, as of the date of this RIR, the diligent inquiry is in process. Upon completion of this inquiry either Textron or Reichhold will submit the written notification. Either way, the notification will trigger new regulatory and mandatory timeframes for that AOC once reported. This matter is discussed in greater detail in sections 5.2.3.3 and 5.4.2 of the Report.

Currently, no new AOCs have been associated with the above referenced ISRA Case numbers.

<u>RE Form – Page 1. Section A:</u> Check if included in updated RE.

Box "A new AOC has been identified" was checked. The AOC appears unrelated to the ISRA #E85403/E89281 case numbers; additional information follows.

As noted above, during the course of this RI, multiple lines of evidence indicated that another, previously unidentified, AOC was the cause for elevated ethylbenzene and xylene contamination at groundwater sample location 13-1. Based on the lines of evidence presented in the RIR, it is likely to be a historic AOC. As noted in this RIR, the finding does not present an immediate environmental concern (IEC) condition. The current property owner (Reichhold) was apprised of

this preliminary finding in a meeting held on January 16, 2014 Because the plant shutdown has triggered ISRA for the property owner, an LSRP has been hired by them to oversee the PA/SI. As such, they are currently conducting their due diligence evaluation of all potential AOCs on the site and will be including the sample 13-1 information in the evaluation accordingly.

As it appears to be a historical release, in accordance to 7:1E-5.2 Notification of Historical Discharges, responsible parties are required to "conduct a diligent inquiry and shall promptly upon completion of the diligent inquiry and discovery of a discharge notify the Department in writing of such discharge at the address given at N.J.A.C. 7:1E-5.8(f)". As noted above, as of the date of this RIR, the diligent inquiry is in process. Upon completion of this inquiry either Textron or Reichhold will submit the written notification. Either way, the notification will trigger new regulatory and mandatory timeframes for that AOC once reported. This matter is discussed in greater detail in sections 5.2.3.3 and 5.4.2 of the Report.

Currently, no new AOCs have been associated with the above referenced ISRA Case numbers.

<u>RE Form – Page 2. Section D. Number 3:</u> Has ground water contamination been delineated to the applicable Remediation Standard?

Yes was checked, additional information follows.

Delineation of groundwater contamination at the AOC for which this RIR is submitted for has been completed. However, during the course of this RI, it was determined that another, previously unidentified, AOC was the cause for elevated ethylbenzene and xylene contamination in groundwater at sample location 13-1. Based on lines of evidence presented in the RIR, it is likely to be a historic AOC. Additional sampling may be needed to complete the delineation of groundwater contamination in this area. See also comment in Section A above.

<u>RE Form – Page 3. Section E. Number 6:</u> The vapor intrusion pathway is a concern at or adjacent to the site (if "No," attach justification).

No was checked; justification follows.

The prior Vapor Intrusion (VI) study conducted at the site in July 2009 concluded the pathway was incomplete. The VI Information and sample results were presented in Section 5 of the *Supplemental Remedial Investigation Report No. 4* and were summarized in section 2.4 of the subject AOC8 RIR. In 2013 NJDEP issued updated VI screening levels and new VI technical guidance. In response to NJDEP's updates the VI pathway was re-evaluated in April 2013. The results of both VI evaluations concluded that the pathway for vapor intrusion at the Site was incomplete and that no further action to address VI at the Site is required. In accordance with the TRSR VI requirements VI was re-evaluated with respect to AOC8 LNAPL release and subsequent soil and groundwater investigation results (see section 4.4.4). No new receptors or pathways were identified. Additionally, the facility was formally closed by the current owner in January 2013, and ISRA case number E20130032 was opened. The buildings on Site that were subject to the 2009 VI investigation are no longer occupied and are slated for demolition by the current owner during the spring and summer of 2014.

<u>RE Form – Page 4. Section E. Number 10:</u> Indoor air results were above the NJDEP's Rapid Action Levels.

Yes was checked for Indoor Air Results > NJDEP's Rapid Action Levels (RALs) and No was checked for Implementation of an IEC engineered system response.

The prior VI study conducted at the site in July 2009 concluded the indoor air results were due to background levels of COCs that are used in the normal coatings formulation processes at this operating industrial facility and consequently, NJDEP has previously acknowledged that OSHA Limits for Air Contaminants (LAC) apply to both sub-slab and interior air quality within the buildings tested. In this situation, because OSHA indoor air standards apply, NJDEP is not responsible for enforcement of OSHA standards, thus, this is not an Immediate Environmental Concern (IEC). The answer is consistent with the 2010 RE Form (the question however is worded differently in the two forms). VI was again evaluated in 2013 following the updates to the NJDEP VI screening levels. As discussed in section 2.4 of the attached Report,

the 2013 re-evaluation reached the same conclusion as the 2010 investigation and the VI pathway was determined to incomplete.

In addition, as mentioned in the above paragraph for Section E Number 6, operations at the facility have been stopped and the facility is closed. The on Site buildings are no longer occupied and will be demolished during the spring and summer of 2014.

Please contact Richard C. Karr at 610-877-6154 or the LSRP at the number listed on the RIR and RE Forms if you should require further information or have any questions.

Sincerely, AMEC Environment & Infrastructure, Inc.

Richard C. Karr, P.G. Associate Geologist

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Brian Worden, LSRP Senior Associate Hydrogeologist

New Jersey Department of Environment Site Remediation Program REMEDIAL INVESTIGATION R	vironmen EPORT F	tal Protec	tion		Date Stan For Department	ıp use only)	
SECTION A. SITE NAME AND LOCATION							
Site Name: Textron, Inc.		·					
List all AKAs: Former Spencer-Kellogg Facility, Reichhold Chemical, Reichhold, Inc.							
Street Address: 400 Doremus Avenue	Street Address: 400 Doremus Avenue						
Municipality: Newark		1945 State (1950) 1917 (1951) 2016 State State (1957 2016) 2	(Township	, Borough oi	City)		
County: Essex			Zip Code:	07105			
Program Interest (PI) Number(s): 015922		Ca	se Trackin	g Number(s)	E85403, E8	9281	
Date Remediation Initiated Pursuant to N.J.A.C. 7:26	C-2: 06/2	4/1985					
State Plane Coordinates for a central location at the	site: Easting	g: <u>596188.</u>	09	N	orthing: 6871	86.88	
Municipal Block(s) and Lot(s):							
Block # 5070 Lot # 9		Block #		Lo	t#		
Block # 5070 Lot # 9.01	E	Block #		Lo	t#		
Block # 5070 Lot # 11		Block #		Lo	t#		
Block # 5070 Lot # 11.01	E	Block #		Lo	t#		
 Via Email at <u>srpedd@dep.state.nj.us</u> (atta CD (attach to this submittal) Is a Classification Exception Area (CEA) Propos Complete the following Submittal and Permit Sta 	ach NJDEP al included atus Table:	confirmation	n email); or		🗌 Yes	X No	
	Not Applicable	Included in this Submission	Previously Submitted	Date Of Submission	Date of Revised Submission	Date of Document Withdrawal	
Public Notification			X	08/21/2009	10/19/2012		
Immediate Environmental Concern Report							
IEC Engineered System Response Action Report							
Vapor Concern Mitigation Report				08/40/0040			
LINAPL Interim Remedial Measure Report		<u> </u>		00/19/2013			
Recentor Evaluation				10/29/2010	09/27/2012		
Site Investigation Report	X				00/21/2012	······	
Remedial Investigation/Remedial Action Work Plan	X						
Remedial Action Report	X						
Response Action Outcome	X						
Alternative Soil Remediation Standard and/or Screening level Application Form	X						
Case Inventory Document							
Technical Impracticability Determination					<u> </u>	l	

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Dee supporting documentation letter

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Permit Application - list:	X							
Radionuclide Remedial Investigation Workplan		<u> </u>						
Radionucide Remedial Investigation Report								
Radionucide Remedial Action Workplan								
						1		
Current Site Use (check all that apply) Industrial Residential Commercial School or child care Other	l use	Intended F	Suture Site Us ustrial sidential nmercial sool or child ca	se (check : Pa Va Go are Fu	all that apply irk or recreati icant overnment iture site use	/) onal use unknown		
SECTION D. CASE TYPE: (check all that apply)				· · ·				
 Administrative Consent Order (ACO) Brownfield Development Area (BDA) Child Care Facility Chrome Site (Chromate chemical production waste) Coal Gas Due Diligence with RAO Hazardous Discharge Remediation Fund (HDSRF) Grant/Loan ISRA 								
Federal Case (check all that apply) RCRA GPRA 2020 CERCLA/NPI Other (explain):	L 🗌 US	D OD		-	TSCA			
SECTION E. PUBLIC FUNDS								
Did the remediation utilize public funds? If "Yes," check applicable: UST Grant HDSRF Grant Spill Fund	UST Loan HDSRF Lo Schools De	an evelopment /	Brownfiel	ld Reimbur Reimbursen	☐ Yes sement Prog nent Program	⊠ No ram ì		
SECTION F. SCOPE OF THE REMEDIAL INVEST		REPORT						
 Does the Remedial Investigation address: X Area(s) of Concern (AOCs) Only ☐ Entire Site (based on a completed and succession) 	ibmitted Pre	liminary Ass	essment/Site	Investigati	ion)			
2. Total number of contaminated AOCs associated with the case: 4								
3. Total number of contaminated AOCs addressed	3. Total number of contaminated AOCs addressed in this submittal: 1							
4. Is the Remedial Investigation complete for the co	ontaminated	AOCs addr	essed in this s	submittal?.	X Ye	əs 🗌 No		
5. Is the Remedial Investigation complete for all AC If "Yes," provide date: 03/27/2014)Cs associa 	ted with this	case?	••••••	X Ye	əs 🗌 No		
SECTION G. SITE CONDITIONS			* <u>2003000</u>					
1. Has dioxin been detected in any site media?						es 🕅 No		
 Check each media-type and highest concentration the time of remedial investigation: 	on of contan	nination pres	sent above an	y applicabl	le standards/d	criteria at		

[Soil in ppm			= Gro	ound	Water in	pp	b	sw	= Sur	face	Water in ppb		Sec	l = Se	dime	nt in p	opm
		Soil ppm	GW ppb	SW ppb	Sed ppm			Soil ppm	GW ppb	SW ppb	Sed ppm		S p	oil om	GW ppb	SW ppb	Sed ppm	
ĺ	*VOCs					<100					È	100–1,000] [K	\boxtimes			>1,000
ĺ	*SVOCs					<100						100–1,000] [X			>1,000
	*PAHs	X	X			<10						10–100						>100
	*Metals					<100						100–1,000						>1,000
	PCBs					<10						10–100						>100
	*Pesticides					<1						1-10						>10
	Chromium					<100						100–1,000	-					>1,000
	Mercury					<100	Ì					100–1,000	ŀ					>1,000
	Arsenic					<10						10–100						>100
	EPH					<1,700						1,700-5,100		X				>5,100
	3. For any contaminant group (*) checked above, identify the contaminant with the highest concentration over its applicable remediation standard and/or screening level:									oplicable								
S		4		<u> </u>	npuen	iyi 			(a)pyr	ene				-				·
E	4. Were the lab	orator /els re	y repo iquireo	d for th	minim ne site	um dete ?	CIIO		s deic	w app		e remediation :	stand	ara	s/ 	🗖	Yes	X No
	5. Are any of th	e folic	wing	condit	ions d	currently	pre	sent?	(chec	k ali ti	nat ap	ply)				_		
	Ground wate	er:									Sol	:						
	Contamin	ated g	ground	l wate	r in th	e overbu	urde	n aqu	ifer			On-site dischar	ge(s)	imp	pacting	g soll	off-sit	9
	Contamin	ated g	round	l wate	rina rinth	confined	aq	uifer guifer				Chromate Cher	mical	Pro	ductic	on Wa	ste/C	OPR
		ated c	round	l wate	rinm	ultiple ad	uife	er unit	s			Contaminated	soil ir	the	s or c satur	ated :	ri zone	
	X Multiple d	istinct	grour	nd wat	er plu	mes	1		-		Ē	listoric pesticio	de im	oac	ts to s	oil		
	🔲 Contamin	ated g	ground	l wate	r migr	ating off	-site	Э			XI	Residual or free	e pro	tuc	t			
	🛛 Backgrou	nd gro	bund v	vater o	contar	nination						Radionuclides						
		ated g	ground	i wate citivo l	r disc Notur	narging i	to s	UFACE	wate	r or		I Historic Fill						
	X Residual	or free	y Sen e prod	uct	natur		II CA	(ESN	n)			Soll contamination due to naturally occurring background conditions						
	Radionuc	lides	. 6									Soil contamina	tion i	nan	ESN	R		
	SECTION H. A	PPLIC	CABL			TION S	TAI	NDAR	DS		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·						· · · · · · · · · · · · · · · · · · ·
	 Were Default Remediation Standards used for all contaminants?									s 🗌 No								
	2 Has comolia	ncee	Verani	na he	en ufi	lized to c	lete	rmine	comr	liance	with	a nathway?				г		
	If "Yes," check all that apply: Compliance Averaging Method Utilized																	
	Arithmetic OF Persent Weighted 75 Persent																	
	Pathway	l						Mea	an		UCI	/	Avera		1	0X Prc	cedur	<u>e</u>
	Inges	tion-D	ermai	Path	way							r				Ĕ	<u>ן</u>	
		ation F	round	ay I Wete	r Pati	hway										L r		
						, way						I				L.		

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Data evaluation for volatile organics derived from discharges of petroleum mixtures		
 4. Were Alternate Remediation Standards used for the Ingestion/Dermal Pathway? 5. Were Alternate Remediation Standards used for the Inhalation Pathway? 6. Were Site Specific Standards used for the Impact to Ground Water Pathway?	🏼 Yes 🔄 Yes 🗔 Yes	X No X No X No
Soil-Water Partitioning Equation SPLP Sesoil Sesoil/AT123D DAF Modification Immobile Chemicals List Soil and Ground Water Analytical Data Evaluation Were Site Specific Ecological Remediation Goals used?		
 8. What is the ground water classification for this site as per N.J.A.C. 7:9C? (check all that apply) Class I-A Class I-PL Pinelands Protection Area Class II-A Class I-PL Pinelands Preservation Area Class III-A 	Yes	IX NO
SECTION I. BACKGROUND CONDITIONS Did the RI demonstrate via a background investigation, outside the influence of on-site AOCs and op	perational areas	s, that:
1. All or any part of the ground water contamination is migrating onto this site per N.J.A.C. 7:26E-3.9?	res 🗌 No	🔀 NA
2. Soil contamination is naturally occurring per N.J.A.C. 7:26E-3.8	∕es □No	X NA
SECTION J. ALTERNATIVE STANDARD / VARIANCES Alternative remediation standard If proposing an alternative remediation standard pursuant to N.J.A.C. 7:26D-7.4, alternate vapor intru ecological site specific goal check here and attach the Alternative Soil Remediation Standard and Application Form as an addendum	usion screening I/or Screening L	ievel, or ₋evel
A site-specific screening level was developed for the evaluation of the VI pathway	🗌 Yes	🛛 No
Variance from regulations If the Licensed Site Remediation Professional has varied from the Technical Rules, provide the citation remediation varied and the page(s) in the attached document where the rationale for the variance is p	on(s) fróm whic provided.	ch the
N.J.A.C. 7:26E Page		
N.J.A.C. 7:26E Page		
N.J.A.C. 7:26E Page		
SECTION K. HISTORIC FILL		
Is historic fill present at the site?	🔀 Yes	🗌 No
If "Yes," answer the following questions:		
1. Indicate how the presence of historic fill was determined (check all that apply):		
Boring logs Test Pits Trenches Aerial Photos NJDEP M	Aapped Areas	
2. Was the historic fill characterized pursuant to N.J.A.C. 7:26E-4.7 and the NJDEP Historic Fill Material Technical Guidance Document?	Yes	No No
3. Are any other AOCs (i.e., location of discharge and any contaminants that may have migrated from that area) located within the defined boundaries of the historic fill?	m X Yes	🗌 No
If "Yes," have the same contaminant type(s) (e.g., lead, arsenic, and/or benzo(a)pyrene, etc.) cha as being present in the historic fill been sampled for as a contaminant of concern at these co-located AOCs?	aracterized	XI No

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Γ	SE	CTION L. GROUND WATER TRIGGER	
	1.	Was a ground water investigation conducted at all AOCs where a ground water investigation was triggered pursuant to N.J.A.C. 7:26E-3.5 and 4.3?	
	2.	Is contamination in soils fully delineated?	🗌 No
Γ	SE	CTION M. GROUND WATER REMEDIAL INVESTIGATION INFORMATION	
	1.	Are contaminants present with a specific gravity less than that of water?	🔲 No
		a. If "Yes," were any monitor wells installed in unconfined aquifers in which the water table is higher than the top of the well screen?	🛛 No
		If "Yes" to 1a, identify the affected wells.	
	2.	Are contaminants present with a specific gravity greater than that of water?	🔀 No
		a. If "Yes," were multiple depth discrete ground water samples collected in a vertical profile at each ground water sampling location where dense contaminants were suspected?	🗌 No
	3.	Is ground water in the bedrock aquifer contaminated?	🛛 No
		If "Yes," answer questions 3a and 3b.	
		a. Were bedrock cores collected?	🗌 No
		b. Were geophysical logging methods conducted to characterize the bedrock aquifer in accordance with the NJDEP Ground Water Technical Guidance (3.4.2.2)?	🗌 No
(X)	4.	Is contamination in ground water fully delineated?	🗋 No
	SF	ECTION N. ECOLOGICAL RECEPTORS	
	1.	Have soil, sediment, and/or surface water data been collected from Environmentally Sensitive Natural Resources (ESNR)?	
		a. If "Yes," do contaminant concentrations at the ESNR exceed ecological screening criteria or the aquatic chronic NJSWQS [N.J.A.C.7:9B]?	🗌 No
		b. If "Yes," have soil and sediment data been collected from both surface and subsurface intervals in the ESNR?	🗌 No
		c. If "No" for 1b, provide explanation	_
	2,	Have contaminant migration pathways from the site/AOC to the ESNR been identified?	🗌 No
(\mathfrak{K})	3.	Do the results of the Ecological Evaluation require a remedial investigation of ecological receptors?	🔀 No
		If "No," provide explanation	
	4.	Has an Ecological Risk Assessment been conducted [N.J.A.C.7:26E-4.8]?	X No
	5.	Is remediation required in an ESNR?	X No
	S	ECTION O. LABORATORY DATA	
	1.	Were all data submitted in the appropriate full and/or reduced formats according to the deliverables defined in N.J.A.C. 7:26E-2?	🗍 No
	2.	Do all data submitted meet the quality assurance/quality control (QA/QC) requirements incorporated by reference in N.J.A.C. 7:26E-2 for:	—
		sampling⊠Yes analysis⊠Yes	No 🗌 No
	3.	How was it determined that the data complied with the QA/QC requirements? X Laboratory non-conformance summary/narrative X Laboratory correspondence	
		LSRP review	
		Independent contractor review Other: Project Manager Review	
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ſ	4.	Has any data been qualified and used?	🗌 No											
	5.	Has any data been rejected and used?	🗙 No											
	6.	Comments:												
		Question #3 comment: Project Manager Review included review of lab non-conformance narrative, evaluation of basic QC measurements and review of sample method detection limits.	results and											
		Question #4 comment: The following data qualifiers were used:												
		J-qualifier used for estimated values below the reporting limit for that parameter N-qualifier used to indicate presumptive evidence of a compound												
	1.	1. Were any regulated USTs identified during the course of the RI that were not previously known? [] Yes												
	If "Yes," list tank size, contents and registration number(s).													
A		a. If "Yes," to item P.1. above and if these USTs were Federally Regulated, was the source/cause of release identified on a Confirmed Discharge Notification form?	🗌 No											
		If "No," complete and submit a revised Confirmed Discharge Notification form.												
(H)	2. Were additional Areas of Concern identified during the RI?													
Ś	ļ	If "Yes," identify AOC(s): Potential historic AOC; see attached supporting documentation letter												
	3.	Identify Remedial Measures (RMs) conducted during the RI (check all that apply):												
		Soil excavation UST closure												
		Potable water supply treatment or replacement												
		Hydraulic containment of source area												
		Soil vapor extraction												
		Enhanced fluid recovery (EFR)												
		Other(s), specify:	·····											
	4.	Did the remedial investigation include sampling to characterize any on-site contaminated media for either on-site or off-site reuse?	🖾 No											
	6	Has clean fill has been brought onto the site?												
	0,													
		IT yes, has it been analyzed?												
	6,	Has new information (material facts, data or other information) been generated during the Krithat corrects or contradicts information, or changes conclusions from, previously submitted reports or information?	🔀 No											
		If "Yes," explain:	<u> </u>											
	7.	Have past deficiencies/notice of deficiencies been addressed in this submittal?	🛛 No											
()	5	le supporting documentation letter												

SECTION Q. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION								
Full Legal Name of the Person Responsible for Conduct	ing the Remediation	on: Textron, Inc.						
Representative First Name: Gregory	Represent	Representative Last Name: Simpson						
Title: Remediation Manager	····							
Phone Number: (401) 457-2635	Ext:	Fax: <u>(401) 457-6028</u>						
Mailing Address: 40 Westminster Street								
City/Town: Providence	State: <u>RI</u>	Zip Code: 02903						
Email Address: gsimpson@textron.com								
This certification shall be signed by the person responsible for conducting the remediation who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).								
I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals Immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly director furthorize the violation of any statute, I am personally liable for the penalties.								
Name/Title: Gregory Simpson/Remediation Manager								
	No change	as to contact information since last submittal 🕅						

SECTION R. LICE	NSED SITE REMEDIATION PRO	FESSIO	NAL INFOR	MATION	AND STATEMENT				
LSRP ID Number:	584478								
First Name: Brian			Last Nam	e: <u>Word</u>	en				
Phone Number: (609) 631-2926	Ext:			Fax:				
Mailing Address:	American Metro Center, 200 Ame	rican M	etro Blvd.						
City/Town: Hamilt	ton	State:	NJ		Zip Code: 08619				
Email Address: br	ian.worden@amec.com								
This statement shall Section 30 b.2.	ll be signed by the LSRP who is su	bmitting	this notifica	ation in ad	cordance with SRRA Section 16 d. and				
l certify that I am a New Jersey. As the	I certify that I am a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C to conduct business in New Jersey. As the Licensed Site Remediation Professional of record for this remediation, I:								
[SELECT ON	E OR BOTH OF THE FOLLOWING	G AS AI	PPLICABLE]:					
☐ directly ove ⊠ personally	ersaw and supervised all of the refe reviewed and accepted all of the re	erenced eference	' remediatior ed remediati	n, and\or ion prese	nted herein.				
I believe that the in	formation contained herein, and inc	cluding	all attached	documer	ts, is true, accurate and complete.				
It is my independer submission to the E	nt professional judgment and opinic Department, conforms to, and is co	on that t nsistent	he remediat with, the re	ion condı mediatior	icted at this site, as reflected in this a requirements in N.J.S.A. 58:10C-14.				
My conduct and de the knowledge and accordance with N.	cisions in this matter were made up skill ordinarily exercised by license J.S.A. 58:10C-16, in the State of N	oon the ed site r lew Jers	exercise of emediation _l sey at the tir	reasonab professio ne I perfo	le care and diligence, and by applying nals practicing in good standing, in rmed these professional services.				
l am aware pursual representation or co significant civil, adn by imprisonment fo	nt to N.J.S.A. 58:10C-17 that for pu ertification in any document or info ninistrative and criminal penalties, r conviction of a crime of the third o	ırposely rmation includin degree.	r, knowingly submitted to g license re	or reckle o the boa vocation	ssly submitting false statement, rd or Department, etc., that there are or suspension, fines and being punished				
LSRP Signature:	Anian Mard			Date:	3/26/14				
LSRP Name/Title:	Brian Worden/Senior Associate H	ydrogeo	ologist		/ / '				
Company Name:	AMEC Environment & Infrastructu	ire, Inc.							
		٨	lo changes	to conta	ct information since last submittal 🔀				
Completed forms s	hould be sent to:								

Bureau of Case Assignment & Initial Notice Site Remediation Program NJ Department of Environmental Protection 401-05H PO Box 420 Trenton, NJ 08625-0420

Supporting Document 16

April 28, 2009 NJDEP Letter



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

JON S. CORZINE

MARK N. MAURIELLO Acting Commissioner

April 28, 2009

Gregory Simpson Textron, Inc. 40 Westminster Street Providence, RI 02903

NOTICE OF DEFICIENCY

Re: Administrative Consent Order (ACO) in the Matter of Textron, Inc. Newark City, Essex County ISRA Case #s E85403 & E89281 SRP ID#015922

Dear Mr. Simpson:

The New Jersey Department of Environmental Protection (NJDEP) has completed a review of the Remedial Investigation Report (RIR) dated April 10, 2009 which was submitted pursuant to the Industrial Site Recovery Act regulations at N.J.A.C. 7:26B, the ACO executed on July 25, 1985, and the Technical Requirements for Site Remediation at N.J.A.C. 7:26E.

I. Deficiencies

The NJDEP has determined that the submittal reflects the following deficiency:

Pursuant to paragraph 10.B of the above referenced ACO, failure to delineate the horizontal and vertical extent of contamination to the applicable remediation standard, including the extent to which contamination has migrated off the property.

II. Site-specific Comments

1. Area of Concern (AOC) #8

a. With regard to Total Petroleum Hydrocarbons (TPH) in this AOC, Textron, Inc. shall provide a copy of any field notes which document whether MW-36 was visually checked for the presence of a sheen or a product layer. In addition, Textron, Inc. shall propose to collect another ground water sample from MW-36 to be visually checked for a sheen or a product layer.

b. With regard to the Volatile Organics (VOs) in this AOC, two horizontal delineation soil samples (MAC11 and MAC13) were collected from 7-7.5' below

grade (b.g.). This sample depth was not the depth which has the highest photo-ionization detector (PID) reading. Therefore, Textron, Inc. shall propose to re-sample MAC11 and MAC13 from the depths with the highest PID readings. (Please note that the March 25, 2008 email, which was referenced in the NJDEP's March 27, 2008 approval letter, had proposed to collect samples from MAC11 at 5-5.5' b.g.)

c. Boring logs from this AOC indicate the presence of black staining, sheen and odors. Textron, Inc. has proposed to address the soil contamination in this AOC via engineering and institutional controls. This is unacceptable. The soils are acting as a continuing source to the ground water contamination. Therefore, Textron, Inc. shall submit a proposal to actively remediate the soil contamination.

d. Textron, Inc. has proposed to install two permanent wells in this AOC. In order to more effectively monitor the contaminant plume, Textron, Inc. shall propose to move MW-39 closer to boring MAC-12 which appears to be the "worst case" contaminant location. In addition, Textron, Inc. shall propose to include MW-36 as part of the monitoring network for this AOC.

e. The proposed in-situ treatment of the ground water in this AOC is generally acceptable; however, if additional soil and ground water investigations determine that the extent of contamination is larger than it is now, additional wells and/or injection points may be required. In order for the NJDEP to issue an approval for this treatment, Textron, Inc. shall first publish the public notice and submit proof that this action has been completed, pursuant to N.J.A.C. 7:26E, Appendix H

2. Former Underground Storage Tanks, adjacent to Building #13

a. Textron, Inc. shall clarify why it was unable to locate monitoring well MW-33. In addition, Textron, Inc. shall document all attempts to location that well.

b. The NJDEP agrees that delineation of the contamination in this AOC is complete. In order for the NJDEP to accept the proposal to establish institutional and engineering controls to address the soil contamination, Textron, Inc. shall propose to check for the presence of sheen and product one additional time from all the wells in this AOC, including MW-33.

3. Building 31/32

a. Page 3-3 indicates that the data from borings MAC17 - MAC20 and MAC25 - MAC28 show that the ground water is primarily impacted by benzene. The NJDEP agrees with this statement; however, it is important to note that the benzene at these boring locations is only slightly above the Ground Water Quality Standards. What is more significant is that the main part of the VO plume that Textron, Inc. has been investigating/remediating for over twenty years, contains much higher concentrations of benzene (up to 1100 parts per million) as well as high concentrations of toluene, ethyl benzene and xylene.

Textron, Inc. argues that the impacts currently observed in soils and ground water north of Building 31/32 are due to releases from current site operations since 1991, or they are the result of residual materials that have remained after the 1991 remediation. Textron, Inc. notes that this area received a no further action approval and states that these impacts are "not subject to the ISRA case management". Please be advised that the NJDEP disagrees with this statement since this area has not received an approval for no further action, and Textron, Inc. has not provided any clear evidence that the reference impacts are only due to current site In addition, based on a brief review of the historical data operations. from this area of the site, it is the NJDEP's position that a limited number of post-remedial soil samples were collected in this area. Also, not all of the soil was remediated to the NJDEP's Impact to Ground Water Therefore, it is likely that not all of the impacted soils were criteria. In light of this information, Textron, Inc. shall propose to remediated. further delineate the VOs in the soils north of Building 31/32. (Note: due to black staining observed in several of the borings, active soil remediation may be required.).

b. Textron, Inc. shall propose two more delineation soil sample locations south of Building 31/32. One of the samples shall be to the south/southeast of MAC-21 and one of the samples shall be to the west/southwest of MAC-21.

c. Figure 3-1 shows MAC-29 and MAC-30 as proposed sample locations, but these designations have already been used. Therefore, Textron, Inc. shall renumber these two proposed sample locations (e.g. MAC-31 and MAC-32).

d. Textron, Inc. shall submit isocon maps for the VOs in the ground water in this AOC.

e. Textron, Inc. shall propose a remedy for the VOs in the ground water in this AOC.

f. Textron, Inc. shall submit hard copies of all information required pursuant to N.J.A.C. 7:26E-3.13(c)7 for each monitoring well sampled.

4. New Soil Standards

On June 2, 2008, the NJDEP's new Remediation Standards became effective. Therefore, Textron, Inc. shall perform an evaluation of all areas of concern (AOCs) to determine if the remaining contaminant levels are in compliance with the referenced NJDEP soil remediation standards.

For each <u>closed AOC</u>, Textron, Inc. shall document which of the following apply:

1. The AOC does not contain contaminant levels above the current remediation standards.

2. The AOC contains contaminant levels above the current numerical remediation standards; however, no further action is required because:

(a) The contaminant levels remaining in the areas of concern listed below are less than an order of magnitude (factor of 10) greater than the current numerical remediation standard applicable at the time of the comparison;

(b) The AOC or the site was remediated using engineering and institutional controls approved by the NJDEP and these controls are still protective of public health, safety and the environment; or

(c) The AOC or the site was remediated to an approved site-specific remediation standard and all of the factors and assumptions which are the basis for deriving the site specific remediation standard remain valid for the site.

3. The AOC contains contaminant levels greater than an order of magnitude above the current numerical remediation standards and further delineation and/or remediation is required. In this case, Textron, Inc. shall submit a proposal for further delineation or remediation, as appropriate, with the required evaluation.

For each **open AOC**, Textron, Inc. shall apply the current remediation standards and submit a Remedial Investigation Workplan (RIW) or RAW, as appropriate.

Note: The Remediation Standards rules and Basis and Background documents are available at www.nj.gov/dep/srp/rs/. In addition, further guidance regarding "order of magnitude" is available at www.nj.gov/dep/srp/guidance/rs/

5. Miscellaneous

a. In item II.4.c of the NJDEP's January 30, 2008 Notice of Deficiency, it was stated that "In all future reports, Textron, Inc. shall ensure that each area of concern (AOC) is discussed in one location in the report, rather that discussing the various aspects (summary, work performed, work proposed) in separate areas of the report. For each AOC, Textron, Inc. shall discuss the soils and ground water issues separately." The above report failed to follow this format. As a result, additional time was needed to review this report. In the future, if Textron, Inc. fails to follow this format, the reports will be rejected.

b. The proposal to perform only sub-slab vapor samples beneath the guard house is not acceptable. Concurrent, indoor air samples are also required. Therefore, Textron, Inc. shall submit a revised proposal which includes indoor air samples. c. The proposal to omit vapor intrusion sampling for Building #25 and Building 31/32 is not acceptable. Therefore, Textron, Inc. shall submit a proposal for vapor intrusion from Building #25 and 31/32.

d. The delineation of all AOCs has not been completed at this time; therefore, the proposed Deed Notices are considered premature and have not been reviewed.

III. Corrective Actions

At the present time, Textron, Inc. shall submit a revised Remedial Investigation/Remedial Action Workplan , which addresses all deficiencies outlined above, within 30 calendar days of receipt of this letter. Note that deficiencies included herein which are not addressed to the NJDEP's satisfaction within the specified time period will be subject to the provisions of N.J.A.C. 7:26C-3.3(c)2-4 and N.J.A.C. 7:26C-10. To determine whether the uncorrected deficiencies will be minor with a period of time to correct or non-minor subject to penalties or MOA termination, as applicable, refer to the table at N.J.A.C. 7:26C-10.4(c).

Please note that only 1 copy of the above referenced document is required.

If you require copies of Departmental Guidance Documents or applications, many of these are available on the internet at www.state.nj.us/dep/srp. If you have any questions regarding this matter please contact Michael Buriani at (609) 633-1425 prior to the date indicated.

Sincerely,

Maurice Mexicorio

Maurice Migliarino, Section Chief Bureau of Industrial Site Remediation

c: Brian Kanzler, Reichhold, Inc. Richard Karr, MACTEC Engineering and Consulting, Inc. Marsha McGowan, Newark Dept. of Health

Supporting Document 17

August 5, 2011 RAR Form

New Jersey Department of Env Site Remediation Program	ironmental	Protection	n				
REMEDIAL ACTION REPORT F	ORM SRP □ Sub	surface Evalu	lator	Date Stan	ηp		
				(For Department	use only)		
SECTION A. SITE NAME AND LOCATION							
List ou AKAs: Former Spencer Kellogg Facility Reich	hold Chemic:	al Reichhold	Inc				
Street Address: 400 Doremus Ave							
Municipality: Newark	ר/	ownshin Bor	ough or City)				
	(1 7	in Code: 071					
Mailing Address if different than street address: 40 M	∠ /estminster St	Providence	RI 02903 Att	n: Grea Simpso	n		
Bragrom Interest (DI) Number(a), SRI ID# 015922				SRA #E85403	#E89281		
Program Interest (PI) Number(s). <u>Strib# 010322</u>	-22 or 23(h)	ase Tracking 12/31/1992	Number(S).	0100 #200400,	#205201		
State Plane Coordinates for a control location at the si	to: Eacting:	596176 72	Ν	lorthing: 6872	18 20		
State Flahe Cooldinates for a central location at the si	ie. Lasing.	000170.72	r	ortning. <u>0072</u>	10.29		
Block #: 5070	Bloc	k #∙ 5070	Lot	<i>#</i> · 9.01			
Block #: 5070 Lot #: 11	Bloc	k #: 5070	Lot	#: <u>11.01</u>			
Block #: Lot #:	Bloc	k #:	Lot	#:			
Block #: Lot #:	Bloc	k #:	Lot	#:			
	<u> </u>						
	Not Applicable	Included in This Submission	Previously Submitted	Date of Submission	Date of Revised Submission		
Immediate Environmental Concern Report	X			Cubinicelen	Custiliseisii		
Immediate Response Action Plans	X						
Preliminary Assessment Report	X						
Receptor Evaluation		X					
Site Investigation Report				- / / /			
Remedial Investigation/Remedial Action Work Plan				6/1/2009			
Peasibility Study Report							
Permit Application							
SECTION C. SITE USE Current Site Use (check all that apply) Industrial Agricultural Residential Park or recreational use Commercial Vacant School or child care Other							
SECTION D. PUBLIC FUNDS							
Did the remediation utilize public funds?				🗌 Ye	es 🛛 No		
If "Yes," check applicable: UST Grant US HDSRF Grant HI Spill Fund Sc	ST Loan DSRF Loan chools Develo	B La pment Author	rownfield Reir andfill Reimbu ity	mbursement Pr ursement Progra	ogram am		

SECTION	E. GEN	NER	AL												
1. Does ∑ A □ E	the RAR Area(s) c Entire Si ⁻	R add of Co te (B	dress: oncern Based (Only on a co	(If submition of the submition of the submitted and the submitted	ted fo	or speci submitte	ific AOC ed Prelir	C(s), atta ninary A	ach Section H2 Assessment/Sit	2 of t te In	he PA/: vestigat	SI form) tion))	
Does for cor	the repo mpletion	ort co of t	ontain he ren	a perm nedial a	iit(s) reque	st th	at requ	ires Site	e Reme	diation Prograr	n ap	proval		🗌 Yes	🗵 No
lf "Yes	s," pleas	e lis	t the ty	/pe an	d the section	on/pa	age(s) c	of the re	port tha	at contain the p	erm	t reque	st(s).		
2. As of site pr	2. As of May 7, 2010, is the remediation initiated for new construction or a change in the use of the site proposed for the purposes of residential use, use as a licensed child care center or use as a school?										🗵 No				
lf "Yes	If "Yes," was an unrestricted use or a presumptive remedy implemented?											🗌 Yes	🗌 No		
lf "No,	If "No," was an alternative remedy approved by the Department? Date of the approval:														
3. At any	3. At any time, was there any radiological contamination detected at the AOC/site?											🔀 No			
4. At any	/ time, d	id th	e site	contair	Ordnance	e and	d Explo	sives/U	nexplod	led Ordnance (OE/	UXO)?		🗌 Yes	🛛 No
5. Did th	e remed	lial a	ction i	nvolve	containme	ent o	f free p	roduct?						Yes	🔀 No
6. Have [] <i>A</i>	. Have any of the following compounds/elements ever been detected in sediment above the ecological screening levels?														
7. Did ar	7. Did any media at the site contain dioxin contamination?											🛛 No			
8. Have	8. Have past deficiencies been addressed in this submittal?											🗌 Yes	🛛 No		
9. Does	this sub	mitta	al docu	iment o	deviate fro	m th	e propo	sed ren	nedial a	ction workplan	?			🗙 Yes	🗌 No
10. Did th	e remed	lial a	ction r	ender	the proper	ty ur	nusable	for futu	ire rede	velopment or f	or				
recreational use (N.J.A.C. 7:26C-6.4(b) and guidance that can be found at											X No				
11 Is remediation complete in all affected media?															
12. Are contaminants from the site discharging to surface water $\nabla V_{}$															
If "Yes	s," identi	fy th	e cont	amina	nt(s) and c	once	entratio	n(s) in tl	he mon	itoring well(s) r	near	est to th	e surfa	ce wate	r body:
		-					. <u> </u>								
SECTION	F. SITI	ECC	ONDIT	IONS											
Check ead standards/	ch media /criteria:	a-typ	e and Soil i	provid n ppm	e the high GW	est c = G	oncentr round	ration of Water i	f contan n ppb	nination curren Sed = Se	tly p dim	resent a ent in p	above a pm	ny appl	icable
	S	oil	GW	Sed			Soil	GW	Sed			Soil	GW	Sed	
	pp	m	ppb	ppm			ppm	ppb	ppm			ppm	ppb	ppm	
*VOCs					<100					100–1,000		X	X		>1,000
*SVOCs					<100					100–1,000					>1,000
*PAHs	Σ		X		<10					10–100					>100
*Metals					<100					100–1,000					>1,000
PCBs					<10					10–100					>100
*Pesticide	*Pesticides									>10					
Chromium	n [<100					100–1,000					>1,000
Mercury					<100					100–1,000					>1,000
Arsenic					<10					10–100					>100
EPH] [<1,700					1,700–5,100		X			>5,100

1.	For any contaminant group (*) checked above, identify the compo applicable remediation standard: TPH (EPH) benzo(a) pyrene	ound/element with the highest concentration over its
2.	Were the laboratory reporting minimum detection limits below ap criteria required for the site?	plicable remediation standards/
3.	Are any of the following conditions currently present (check all the Groundwater: Contaminated ground water in the overburden aquifer Contaminated ground water in a confined aquifer Contaminated ground water in the bedrock aquifer Contaminated ground water in multiple aquifer units Multiple distinct ground water plumes Contaminated ground water migrating off-site Co-mingled onsite ground water plumes Co-mingled ground water plumes Co-mingled ground water plumes from both on-site and off-site sources Contaminated ground water discharging to surface water Residual or free product Radionuclides	at apply): Soil: On-site discharge(s) impacting soil off-site Chromate Production Waste Munitions and explosives of concern Contaminated soil in the saturated zone Historic pesticide impacts to soil Residual or free product Radionuclides Historic Fill Soil contamination due to naturally occurring background conditions
SE Alf If p Re De If t rer	CTION G. ALTERNATIVE STANDARD / DEVIATIONS ernative remediation standard proposing an alternative remediation standard pursuant to N.J.A.C. mediation Standard Application Form as an addendum. viation from regulations he Licensed Site Remediation Professional has varied from the Te nediation varied and the page(s) in the attached document where the N.J.A.C. 7:26E- Page Page N.J.A.C. 7:26E- Page Page	7:26D-7.4, check here and attach the Alternative Soil chnical Rules, provide the citation(s) from which the the rationale for the deviation is provided.
SE	CTION H. APPLICABLE REMEDIATION STANDARDS	
Inc	 licate the Remediation Standards used for all compounds (check at a point of the local standards of the local standards for the local standa	all that apply). ening Levels
SE	CTION I. SOIL/SEDIMENT REUSE	
1. 2. 3. 4.	Was material other than certified clean soil imported from an off Did the remedial action involve on-site reuse of the contaminated Did the remedial action involve exporting contaminated media off- Did the remedial action involve soil blending for applied pesticides to any reuse?	f-site source? Yes No media (soil or other materials)? Yes No site for reuse or recycling? Yes No for agricultural purposes prior

SECTION J. REMEDIAL ACTION REPORT INFORMATION					
SOILS	X No				
2. Here a compliance averaging been dilized to determine compliance with the Impact to Cround Water					
Pathway?					
If "Yes," check all that apply:					
Immobile Compounds Date evoluation for motols and somi valatiles					
\Box Data evaluation for volatile organics derived from discharges of petroleum mixtures					
3. Is a restricted use required?	🗌 No				
4. If "Yes," indicate the type of restriction being implemented. Industrial use					
 If applicable, has consent from all involved property owners been obtained (i.e., for institutional or engineering controls)? 	🗌 No				
If an engineering control was required, indicate the receptor(s) each engineering control is intended to protect (check all that apply):					
Human Ecological Offsite Impacts No Engineering Control					
GROUND WATER	_				
1. Is an unrestricted use being proposed for ground water?	🗵 No				
2. Is a revised CEA required?	🗙 No				
3. Do any contaminant levels in ground water currently exceed the vapor intrusion ground water trigger? \Box Yes	🛛 No				
ECOLOGICAL					
 Was post-remedial sampling performed to determine whether contaminant levels currently meet ecological screening levels or ecological remediation goals?	🛛 No				
2. Did the remedial action require filling of State open waters or wetlands?	🛛 No				
INDOOR AIR					
1. Is an engineering control required in order to mitigate a vapor hazard in a structure?	🛛 No				
2. If "Yes," check each type of engineering control that was implemented:					
Subsurface Depressurization System					
Sealed Vapor Barrier					
Soil Vapor Extraction System					
SECTION K. MISCELLANEOUS					
1. Will any injured natural resources be restored concurrent with the remedial action? \Box Yes	🛛 No				
If "Yes," is the Office of Natural Resources Restoration involved?	🗌 No				
2. Was the proposed remedial action a presumptive remedy?	🛛 No				

Representative First Name: Gregory			Representative La	st Name: Simps	son
Phone Number: (401) 457-2635	Ext:			Fax: (401) 4	57-6028
Mailing Address: 40 Westminster St.					
City/Town: Providence		State:	RI	Zip Code:	02903
				and the second se	
Email Address: gsimpson@textron.com				2.0.010.0	

irst Name: Bria	an		Last Name: V	Vorden	
hone Number:	(609) 631-2926	Ext:		Fax:	(609) 689-2838
Aailing Address:	200 American Metro Blvd.,				
City/Town: Han	hilton	State:	NJ		_ Zip Code: 08619
Email Address:	brian.worden@amec.com	1			
This statement sh Section 30 b.2.	all be signed by the LSRP who is su	Ibmitting	this notification	in accordanc	e with SRRA Section 16 d. and
certify that I am New Jersey. As ti	a Licensed Site Remediation Profes he Licensed Site Remediation Profes	sional au ssional c	Ithorized pursua f record for this	nt to N.J.S.A. remediation,	58:10C to conduct business ir l:
[SELECT O	NE OR BOTH OF THE FOLLOWING	G AS AF	PLICABLE]:		
directly o	versaw and supervised all of the refe	erenced	remediation, and	d\or	
🗵 personal	ly reviewed and accepted all of the r	eference	d remediation p	resented here	ein.
believe that the	information contained herein, and in	cluding a	all attached docu	iments, is true	e, accurate and complete.
t is my independ submission to the	ent professional judgment and opinio Department, conforms to, and is co	on that th nsistent	ne remediation c with, the remed	onducted at t iation require	his site, as reflected in this ments in N.J.S.A. 58:10C-14.
My conduct and on the knowledge are a conducted and a conducted an	lecisions in this matter were made u ad skill ordinarily exercised by license N.J.S.A. 58:10C-16, in the State of N	pon the ed site re lew Jers	exercise of reas emediation profe eey at the time I	onable care a ssionals prac performed the	and diligence, and by applying sticing in good standing, in ese professional services.
am aware pursu representation or significant civil, a by imprisonment	ant to N.J.S.A. 58:10C-17 that for pu certification in any document or info dministrative and criminal penalties, for conviction of a crime of the third	urposely, rmation including degree.	, knowingly or re submitted to the g license revoca	cklessly subr board or Dep tion or suspei	mitting false statement, partment, etc., that there are nsion, fines and being punishe / /
SRP Signature:	Br. Alad	_		Date: <u>8/</u>	8/11
SRP Name/Title	Brian Worden/Principal Scientist			No Changes	Since Last Submittal
	AMEC ERI Inc				\sim

Bureau of Case Assignment & Initial Notice New Jersey Department of Environmental Protection Site Remediation Program 401 East State Street, PO Box 434 Trenton, NJ 08625

H2	H2. Areas of Concern (For PA or PA/SI Report, list each AOC; for SI Report, list only AOCs documented in this submittal.)							
	Area of Concern	Currently Exists? ⊠ if "Yes"	Formerly Existed? ⊠ if "Yes"	Investi SI Conducted ⊠ if "Yes"	gation RI Proposed ⊠ if "Yes"			
1	Above ground storage tank and associated piping							
2	Area of stressed vegetation							
3	Area which receives flood or storm water from potentially contaminated areas							
4	Chemical storage cabinet and closet							
5	Compressor vent discharge							
6	Discharge area pursuant to N.J.A.C. 7:1E							
7	Discolored or spill area							
8	Drainage swale and culvert							
9	Drywell and sump							
10	Dumpster							
11	Electrical transformer and capacitor							
12	Floor drain collection system							
13	Former agricultural applied pesticide area							
14	Hazardous material storage or handling area							
15	Historic fill or any other fill material	\mathbf{X}						
16	Hydraulic lift							
17	Incinerator							
18	Landfill or landfarm							
19	Loading and unloading area							
20	Non-contact cooling water discharge							
21	Open area away from production area							
22	Piping, above ground and below ground pumping station, sump and pit							
23	Process area sink and piping which receive process waste							
24	Rail car							
25	Roof leader when process operations vent to the roof							
26	Septic system, leachfield or seepage pit							
27	Silo							
28	Sprayfield							
29	Storage pad including drum and/or waste storage							
30	Storm sewer and spill containment collection system							
31	Storm water detention pond and fire pond							
32	Surface impoundment and lagoon							
33	Surface water body							
34	Underground piping including industrial process sewer							
35	Underground storage tank and associated piping		X					
36	Waste pile as defined by N.J.A.C. 7:26							
37	Waste water treatment							
38	Other:							



August 8, 2011

Bureau of Case Assignment & Initial Notice New Jersey Department of Environmental Protection Site Remediation Program 401EastStateStreet, POBox434 Trenton, NJ 08625

 RE: Remedial Action Report Form and LSRP Supporting Documentation Remedial Action Report dated August 2011 Building #13 Area of Concern Textron, Inc. 400 Doremus Ave. Newark, NJ 07105 SRI ID# 015922, ISRA #E85403/E89281

Dear Sir or Madame:

AMEC Environment and Infrastructure (AMEC) is submitting this letter to provide supporting documentation for the enclosed Remedial Action Report (RAR) Form which accompanies the RAR dated August, 2011. The RAR documents remedial actions conducted at the Building #13 Area of Concern (AOC). The following information is provided to clarify and/or substantiate the selection or answers contained on certain sections of the RAR Form:

Section E. Number 9

Several deviations were made to the engineering and institutional controls described in the Remedial Action Work Plan (RAWP) submitted to the New Jersey Department of Environmental Protection (NJDEP) on April 10, 2009, subsequently amended in a submittal dated June 1, 2009 and approved by NJDEP by letter dated June 16, 2009. These deviations are discussed in Section 4.4 of the RAR and summarized below:

Correspondence: AMEC E&I 1787 Sentry Parkway West Suite 120 Blue Bell, PA 19422 Tel +1 (215) 619 0292 Fax +1 (215) 619 0297 1. The original cover system proposed by Textron included a non-permeable geomembrane in place of the permeable geotextile. Based on drainage issues that may have resulted from the use of the non-permeable membrane, Textron proposed the use of the permeable geotextile to NJDEP. NJDEP approved the use of the geotextile in a phone correspondence conducted on April 21, 2009. This approved change is discussed in the RAWP amendment dated June 1, 2009. The material selected for use in the cover system is a non-woven polypropylene geotextile intended to act as a barrier between the DGA materials and the underlying soils while still allowing for surface water drainage to the subsurface. This change is deemed equally protective of human health and the environment.

2. The approved RAWP specifies that the protective barrier skirting will be constructed using chain-link fencing. During the design process, galvanized corrugated steel panels were substituted for the chain link fencing based on ease of installation, durability, and appearance. For these reasons, solid panels mounted directly to the building structure were deemed to be a superior material choice/construction method compared to chain-link fencing. This change is deemed equally protective of human health and the environment.

3. Off-site engineering and institutional controls were not required because the additional delineation performed as reported in the Site Remedial Investigation Report No. 4 submitted to NJDEP dated October 29, 2010 determined that the soil impacts at this AOC were within the Reichhold property boundaries.

Section E. Number 11/Section F Number 3

"Is remediation complete in all affected media" checked yes and "Contaminated ground water in the overburden aquifer" checked. As noted in the Supplemental Remedial Investigation Report No. 4 dated October 29, 2010 and in Section 3.3 of this RAR, groundwater impacts within this AOC are limited to historic fill related SVOCs at one location. The groundwater remedy for the historic fill related contaminants is an institutional control in the form of a Classification Exception Area (CEA) and Well Restriction Area (WRA). The CEA was previously approved by the NJDEP and groundwater monitoring is on-going; the most recent biennial CEA Report was issued to the NJDEP December 2009.

PAP-00145507

Section G. Deviation from Regulations

7:26E-6.7(b)7

The deviation from the Technical Rule applies to the deed notice citation. The owners consent to the deed notice for historic fill related contaminants as well as placement of the engineering controls documented in the RAR was executed in January 2010. A copy of this agreement was included in Appendix B of the attached RAR and is also referenced in text Section 4.3.3. (NJDEP previously approved the historic fill institutional/engineering control in 2009). A final Deed Notice will be included in the NJDEP Remedial Action Permit for Soils after it is recorded. This may be submitted as a stand alone permit document for the Building #13 AOC or combined with other AOCs that are undergoing remediation.

7:26E-6.7(g)

The deviation from the Technical Rule applies to the updated receptor evaluation. As noted on the RAR Form, the receptor evaluation was previously updated and submitted with the Supplemental Remedial Investigation Report No. 4 dated October 29, 2010; there have been no changes since this submittal.

There were no other deviations from the RAWP or Tech Rule.

Sincerely, AMEC E&I, Inc.

Richard C. Karr Senior Principal Geologist

Brian Worden, LSRP w/p2+mission Principal Scientist

Supporting Document 18

September 2012 RE Form (EE)



September 27, 2012

Bureau of Case Assignment & Initial Notice Site Remediation Program New Jersey Department of Environmental Protection 401-05H PO Box 420 Trenton, NJ 08625-0420

RE: Updated Receptor Evaluation Form and LSRP Supporting Documentation Ecological Evaluation Report Dated September 2012 Textron, Inc. (aka. Former Spencer-Kellogg Facility) 400 Doremus Ave. Newark, NJ 07105 SRI ID# 015922, ISRA #E85403/E89281

Dear Sir or Madame:

AMEC Environment and Infrastructure (AMEC) is submitting this letter to provide supporting documentation for the enclosed updated Receptor Evaluation (RE) Form and accompanying Ecological Evaluation (EE) Report dated September, 2012.

On October 29, 2010, Textron Inc. submitted its Supplemental RI Report No. 4 through its LSRP, Brian Worden. Appendix D of that document was comprised of a Receptor Evaluation conducted pursuant to N.J.A.C. 7:26E following the remedial investigation requirements in effect at that time. The attached technical document entitled, *Ecological Evaluation, Former Spencer Kellogg Facility, 400 Doremus Ave., Newark, Essex County, New Jersey* is being submitted solely as a supplement to the October 29, 2010 submittal and constitutes completion of an EE in compliance with the current Technical Requirements for Site Remediation (TRSR N.J.A.C. 7:26E) that was adopted May 7, 2012 as well as the Ecological Evaluation Technical Guidance, NJDEP August 2011 (Version 1.1 8/30/2011). The EE was prepared because there were changes in the process of evaluating potential ecological impacts since the previous RE was performed, as promulgated in May 2012. The EE is being submitted as part of an updated RE, although there were no material changes in the receptor status. Concurrently, the information

Correspondence: AMEC E&I 1787 Sentry Parkway West Suite 120 Blue Bell, PA 19422 Tel +1 (215) 619 0292 Fax +1 (215) 619 0297 NJDEP Bureau of Case Assignment & Initial Notice September 27, 2012 Page 2

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was used to support answers on the NJDEP Remedial Priority Scoring (RPS) Form that was submitted to the NJDEP on September 26, 2012.

The following information is provided to clarify and/or substantiate the selection or answers contained on certain sections of the RE Form:

<u>Section E. Number 6:</u> The vapor intrusion pathway is a concern at or adjacent to the site (if "No," attach justification).

No was checked; justification follows.

The prior Vapor Intrusion (VI) study conducted at the site in July 2009 concluded the pathway was incomplete. The VI Information and sample results were presented in Section 5 of the *Supplemental Remedial Investigation Report No. 4*. The answer is consistent with the 2010 RE Form (the question however is worded differently in the two forms).

Section E. Number 10: Indoor air results were above the NJDEP's Rapid Action Levels.

Yes was checked for Indoor Air Results > NJDEP's Rapid Action Levels (RALs) and No was checked for Implementation of an IEC engineered system response.

The prior VI study conducted at the site in July 2009 concluded the indoor air results were due to background levels of COCs that are used in the normal coatings formulation processes at this operating industrial facility and consequently, NJDEP has previously acknowledged that OSHA Limits for Air Contaminants (LAC) apply to both sub-slab and interior air quality within the buildings tested. In this situation, because OSHA indoor air standards apply, NJDEP is not responsible for enforcement of OSHA standards, thus, this is not an Immediate Environmental Concern (IEC). There were no changes in the building receptor status. The answer is consistent with the 2010 RE Form (the question however is worded differently in the
NJDEP Bureau of Case Assignment & Initial Notice September 27, 2012 Page 3

two forms). The VI Information and sample results were presented in Section 5 of the *Supplemental Remedial Investigation Report No. 4*.

Please contact Richard C. Karr at 610-877-6154 or the LSRP at the number listed on the RE Form if you should require further information or have any questions.

Sincerely, **AMEC Environment & Infrastructure, Inc.**

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Richard C. Karr, P.G. Senior Project Geologist

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Brian Worden, LSRP Principal Scientist

New Jersey Department of Environment Site Remediation Program	nental Protection			
RECEPTOR EVALUATION (RE) FOR	M			
Ŷ	Date Stamp (For Department use only)			
SECTION A. SITE NAME AND LOCATION				
Site Name:Textron, Inc.				
List all AKAs: Former Spencer-Kellogg Facility, Reichhold C	Chemical, Reichhold, inc.			
Street Address: 400 Doremus Ave.				
Municipality: Newark	_ (Township, Borough or City)			
County: Essex	Zip Code: 07105			
Program Interest (PI) Number(s): SRI ID# 015922	Case Tracking Number(s): ISRA #E85403, #E89281			
Indicate the type of submission: ☐ Initial RE Submission ⊠ Updated RE Submission Indicate the reason for submission of an updated RE form				
 Submission of an Immediate Environmental Concern (IEC) source control report; Submission of a Remedial Investigation Report; Submission of a Remedial Action Report; Check if included in updated RE The known concentration or extent of contamination in any medium has increased; A new AOC has been identified; A new receptor is identified; A new exposure pathway has been identified. 				
 SECTION B. ON SITE AND SURROUNDING PROPERTY USE 1. Identify any sensitive populations/uses that are currently on-site or surrounding property usage within 200 feet of the site boundary (check all that apply): 				
None of the following Residences or residential property Public or Private Schools grades K-12 Child care centers Public parks, playgrounds or other recreation areas Other sensitive population use(s) Explain				
If any of the above applies, attach a list of addresses, fac location relative to the site.	ility names, type of use, and a map depicting each			
2. Current site uses (check all that apply): X Industrial Residential School or child care Government Vacant Other:	Commercial Agricultural Park or recreational use			
3. Planned future site uses and off-site use within 200 ft of s X Industrial Residential School or child care Government Vacant Other:	ite boundary (check all that apply): Commercial Agricultural Park or recreational use			
Provide a map depicting the location of the proposed c	hanges in land use.			

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SE	CTION C. DESCRIPTION OF CONTAMINATION
1.	 Identify if any of the following exist at the site (check all that apply): X Free product [N.J.A.C. 7:26E-1.8] identified is X LNAPL* or DNAPL**. Date identified: 01/01/1998 Q Residual product [N.J.A.C. 7:26E-1.8] Q Other high concentration source materials not identified above (e.g., buried drums, containers, unsecured friable asbestos)
	Explain:
	<u>* LNAPL – measured thickness of .01 feet or more</u> **DNAPL – See US EPA DNAPL Overview
2.	Soil Migration Pathway
	Has soil contamination been delineated to the applicable Direct Contact Soil Remediation Standard?
- - -	Are all soils either below the applicable Direct Contact Criteria or under an institutional control (i.e. deed notice)?
3.	If this evaluation is submitted with a technical document that includes contaminant summary information, proceed to Section D. Otherwise attach a brief summary of all currently available data and information to be included in the site investigation or remedial investigation report.
SE	CTION D. GROUND WATER USE
1.	Has the requirement for ground water sampling been triggered? X Yes No Unknown If "No," proceed to Section F. If "Unknown," explain:
2.	Is Ground water contaminated above the Ground Water Remediation Standards [N.J.A.C.7:9C]?
	Or 🔲 Awaiting laboratory data with the expected due date:
	If "Yes," provide the date that the laboratory data was available and confirmed contamination above the Ground Water Remediation Standards. Date: <u>12/31/1992</u>
	If "Unknown," explain:
	If "No," or awaiting laboratory data proceed to Section F.
3.	Has ground water contamination been delineated to the applicable Remediation Standard?
4.	Has a well search been completed?X Yes 🗌 No
	Date of most recent or updated well search: <u>10/01/2010</u>
	Identify if any of the following conditions exist based on the well search [N.J.A.C.7:26E-1.14(a)] (check all that apply): Potable wells located within 500 feet from the downgradient edge of the currently known extent of contamination. Potable well located 250 feet upgradient or 500 feet side gradient of the currently known extent of contamination. Ground water contamination is located within a Tier 1 wellhead protection area (WHPA).
5.	Is a completed Well Search Spreadsheet or historical well search table attached and has an electronic copy of the spreadsheet been submitted to <u>srpgis_wrs@dep.state.nj.us</u>
	If "No," explain: Submitted with Initial Receptor Evaluation signed by LSRP on 10/20/2010
6.	Are any private potable or irrigation wells located within ½ mile of the currently known extent of contamination?
	If "Yes," was a door to door survey completed?
	If survey was not completed explain:
7.	Has sampling been conducted of 🗌 potable well(s) and /or 🗌 non-potable use well(s)?
	If "No," provide justification then proceed to Section E.
	None identified

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8	Has contamination been identified in potable well(s) above Ground Water Remediation Standards that is not suspected to be from the site? (If "Yes," provide justification)			
9	Has contamination been identified in potable well(s) that is above the Ground Water Remediation Standards or Federal Drinking Water Standards?			
	Provide date laboratory data was received:			
	Or 🔲 awaiting laboratory data with the expected due date:			
	If "Yes" for potable well contamination not attributable to background , follow the IEC Guidance Document at <u>http://www.nj.gov/dep/srp/guidance/index.html#iec</u> for required actions and answer the following:			
	Has an engineered system response action been completed on all receptors?			
	Date completed: NJDEP Case Manager:			
10.	Were Non-potable use well(s) sampled and results were above Class II Ground Water			
	Remediation Standards?			
	Provide date laboratory data was received:			
	Or light awaiting laboratory data with the expected due date:			
11.	Has the ground water use evaluation been completed?			
SE	SECTION E. VAPOR INTRUSION (VI)			
1.	Contaminants present in ground water exceed the Vapor Intrusion Ground Water Screening Levels that trigger a VI evaluation. (see NJDEP Vapor Intrusion Technical Guidance) 🛛 Yes 🗌 No 📄 Unknown			
	Or 🔲 Awaiting laboratory data and the expected due date:			
	Provide the date that the laboratory data was available and confirmed contamination above the Vapor Intrusion Trigger Levels. Date: <u>12/31/1992</u>			
2.	Other existing conditions that trigger a VI evaluation. (see NJDEP Vapor Intrusion Technical Guidance)			
	Wet basement or sump containing free product or ground water containing volatile organics			
	Methane generating conditions causing oxygen deficient or explosion concern Other human or safety concern from the VI pathway (i.e. elemental mercury, unsaturated contamination, elevated soil gas or indoor vapor (explain):			
	Constituents detected above indoor air screening levels are associated with production activities at the facility, are background levels at the facility, and are below OSHA exposure limits.			
lf y Se	ou answered "No," or awaiting laboratory data to Question 1., <u>and</u> did not check any boxes in Question 2, proceed to ction F, "Ecological Receptors", otherwise complete the rest of this section.			
3.	Has ground water contamination been delineated to the applicable Ground Water Vapor Screening Level?X Yes 🗌 No			
4.	Was a site specific screening level, modeling or other alternative approach employed for the VI pathway?			
5.	Identify and locate on a scaled map any buildings/sensitive populations that exist within the following distances from ground water contamination with concentrations above the Vapor Intrusion Ground Water Screening Levels or specific threats (check all that apply):			
	 30 feet of petroleum free product or dissolved petroleum hydrocarbon contamination in ground water 100 feet of any non-petroleum free product or any non-petroleum dissolved volatile organic ground water contamination 			
	☐ No buildings exist within the specified distances			
6.	The vapor intrusion pathway is a concern at or adjacent to the site (if "No," attach justification)			

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1.	Has soil gas sampling of the building(s) been conducted? If "No," or "N/A," proceed to #10	□ N/A
8.	Has indoor air sampling been conducted at the identified building(s)?	🗋 No
9	Has indoor air contamination been identified but not suspected to be from the site? (if "Yes," attach justification)	🔀 No
10.	Indoor air results were above the NJDEP's Rapid Action Levels	K 🗌 No
	Provide the date that the laboratory data was available and confirmed contamination above the Rapid Action Levels. Date: <u>07/02/2009</u>	
	Or 📋 Awaiting laboratory data with the expected due date:	
	If "Yes" to #8 above, follow the IEC Guidance Document at http://www.nj.gov/dep/srp/guidance/index.html#iec for required actions.	
	The IEC engineering system response for control was implemented for all identified structures	⊠ No [*]
	Date: NJDEP Case Manager:	
11.	Indoor air sampling was conducted and results were above the NJDEP's Indoor Air Screening Levels but at or below the Rapid Action Levels	🔀 No
	Provide the date that the laboratory data was available. Date:	
	Or 🔲 Awaiting laboratory data with the expected due date:	
	If "Yes" to #10 above, answer the following:	
	Has the Vapor Concern (VC) Response Action Form notifying the NJDEP of the exceedances been submitted?	□ No
	Has a plan to mitigate and monitor the exposure been submitted?	🗌 No
	Has the Mitigation Response Action Report been submitted?Difference and the second	🗌 No
12.	Has the vapor intrusion investigation been completed?	🗌 No
	If "No", is the vapor intrusion investigation stepping out as part of the site investigation or remedial investigation. (If "No." attach justification)	
SE		
1.	nas an Ecological Evaluation (EE) has been conducted? [N.J.A.C. 7:26E-1.16]	
2	Date conducted. $\underline{00,00,2012}$	
2.	Has a remedial investigation of ecological recentors been conducted?	
0.	Date conducted:	
4.	Provide the name(s) of any surface water body on or within 200 feet of the site:	
	Newark Bay, Plum Creek, unnamed detention basin	
5.	Is free product or residual product located within 100 feet from an ecological receptor?	No No
6.	Available data indicate an impact on: Ecological receptor(s) Surface water Sediment	
	If this evaluation is submitted with a technical document that includes contaminant summary information, pro- Section G. Otherwise attach a description of the type of contamination and provide a schedule and a descrip all actions to be taken to mitigate exposure	ceed to tion of

* See Accompanying Supporting Document

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SECTION G. PERSON RESPONSIBLE FOR CONDUCTI	NG THE REMEDIATION INFORMATION AND CERTIFICATION	
Full Legal Name of the Person Responsible for Conducting	the Remediation: Textron, Inc.	
Representative First Name: Gregory	Representative Last Name: Simpson	
Title: Remediation Mgr.		
Phone Number: (401) 457-2635 Ext:	Fax: (401) 457-6028	
Mailing Address: 40 Westminster Street		
City/Town: Providence	State: RI Zip Code: 02903	
Email Address: gsimpson@textron.com		
This certification shall be signed by the person responsible in accordance with Administrative Requirements for the Re	e for conducting the remediation who is submitting this notification mediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).	
I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.		
Signature:	Date: 924 2012	
Name/Title: Gregory Simpson/Remediation Manager	No Changes Since Last Submittal 🔀	
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First Name: Brian L Phone Number: (609) 631-2926 Ext: Mailing Address: American Metro Center, 200 American Metro Blv City/Town: Hamilton State: NJ Email Address: brian.worden@AMEC.com State: NJ This statement shall be signed by the LSRP who is submitting this not Section 30 b.2. I certify that I am a Licensed Site Remediation Professional authorize New Jersey. As the Licensed Site Remediation Professional of record [SELECT ONE OR BOTH OF THE FOLLOWING AS APPLICA directly oversaw and supervised all of the referenced remedi personally reviewed and accepted all of the referenced remedi personally reviewed and accepted all of the referenced remedi personally reviewed and accepted all of the referenced remedi personally reviewed and accepted all of the referenced remedi personally reviewed and accepted all of the referenced remedi personally reviewed and accepted all of the referenced remedi personally reviewed and accepted all of the referenced remedi personally reviewed and accepted all of the referenced remedi tis my independent professional judgment and opinion that the remesubmission to the Department, conforms to, and is consistent with, th My conduct and decisions in this matter were made upon the exercise knowledge and skill ordinarily exercised by licensed site remediation I am awar	ast Name: <u>Worden</u> Fax:				
Phone Number: (609) 631-2926 Ext: Mailing Address: American Metro Center, 200 American Metro Blv City/Town: Hamilton State: N. Email Address: brian.worden@AMEC.com State: N. This statement shall be signed by the LSRP who is submitting this not Section 30 b.2. I certify that I am a Licensed Site Remediation Professional authorize New Jersey. As the Licensed Site Remediation Professional of record [SELECT ONE OR BOTH OF THE FOLLOWING AS APPLICA directly oversaw and supervised all of the referenced remedi personally reviewed and accepted all of the referenced remedi personally reviewed and accepted all of the referenced remedi personally reviewed and accepted all of the referenced remedi personally reviewed and accepted all of the referenced remedi personally reviewed and accepted all of the referenced remedi personally reviewed and accepted by licensed site remediation tis my independent professional judgment and opinion that the remesubmission to the Department, conforms to, and is consistent with, th My conduct and decisions in this matter were made upon the exercise knowledge and skill ordinarily exercised by licensed site remediation with N.J.S.A. 58:10C-16, in the State of New Jersey at the time I perf I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowin representation or certification in any document or information submitt significant civil, administrative and criminal penalties, including license	Fax:				
Mailing Address: American Metro Center, 200 American Metro Blv City/Town: Hamilton State: N. Email Address: brian.worden@AMEC.com Email State: N. This statement shall be signed by the LSRP who is submitting this not Section 30 b.2. I certify that I am a Licensed Site Remediation Professional authorized New Jersey. As the Licensed Site Remediation Professional of record [SELECT ONE OR BOTH OF THE FOLLOWING AS APPLICA I directly oversaw and supervised all of the referenced remedi I personally reviewed and accepted all of the referenced remedi I personally reviewed and accepted all of the referenced remedi I is my independent professional judgment and opinion that the remession to the Department, conforms to, and is consistent with, th My conduct and decisions in this matter were made upon the exercised knowledge and skill ordinarily exercised by licensed site remediation with N.J.S.A. 58:10C-16, in the State of New Jersey at the time I perf I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowing representation or certification in any document or information submitting significant civil, administrative and criminal penalties, including license imprisonment for conviction of a crime of the third degree.	ιd				
City/Town: Hamilton State: N. Email Address: brian.worden@AMEC.com This statement shall be signed by the LSRP who is submitting this no Section 30 b.2. I certify that I am a Licensed Site Remediation Professional authorize New Jersey. As the Licensed Site Remediation Professional of record [SELECT ONE OR BOTH OF THE FOLLOWING AS APPLICA directly oversaw and supervised all of the referenced remedi personally reviewed and accepted all of the referenced remed l believe that the information contained herein, and including all attact It is my independent professional judgment and opinion that the reme submission to the Department, conforms to, and is consistent with, th My conduct and decisions in this matter were made upon the exercise knowledge and skill ordinarily exercised by licensed site remediation with N.J.S.A. 58:10C-16, in the State of New Jersey at the time I perf I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowin representation or certification in any document or information submitt significant civil, administrative and criminal penalties, including license imprisonment for conviction of a crime of the third degree.	/u.				
Email Address:brian.worden@AMEC.com This statement shall be signed by the LSRP who is submitting this not Section 30 b.2. I certify that I am a Licensed Site Remediation Professional authorized New Jersey. As the Licensed Site Remediation Professional of record [SELECT ONE OR BOTH OF THE FOLLOWING AS APPLICA] directly oversaw and supervised all of the referenced remedi] personally reviewed and accepted all of the referenced remedi] personally reviewed and accepted all of the referenced remedi I believe that the information contained herein, and including all attac It is my independent professional judgment and opinion that the reme submission to the Department, conforms to, and is consistent with, th My conduct and decisions in this matter were made upon the exercised knowledge and skill ordinarily exercised by licensed site remediation with N.J.S.A. 58:10C-16, in the State of New Jersey at the time I perf I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowing representation or certification in any document or information submitts significant civil, administrative and criminal penalties, including licens imprisonment for conviction of a crime of the third degree.	J Zip Code: 08619				
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I certify that I am a Licensed Site Remediation Professional authorize New Jersey. As the Licensed Site Remediation Professional of record [SELECT ONE OR BOTH OF THE FOLLOWING AS APPLICA] directly oversaw and supervised all of the referenced remedi] personally reviewed and accepted all of the referenced remedi] personally reviewed and accepted all of the referenced remedi] believe that the information contained herein, and including all attac It is my independent professional judgment and opinion that the reme submission to the Department, conforms to, and is consistent with, th My conduct and decisions in this matter were made upon the exercise knowledge and skill ordinarily exercised by licensed site remediation with N.J.S.A. 58:10C-16, in the State of New Jersey at the time I perf I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowin representation or certification in any document or information submitt significant civil, administrative and criminal penalties, including licens imprisonment for conviction of a crime of the third degree.	This statement shall be signed by the LSRP who is submitting this notification in accordance with SRRA Section 16 d. and Section 30 b.2.				
[SELECT ONE OR BOTH OF THE FOLLOWING AS APPLICA directly oversaw and supervised all of the referenced remedi personally reviewed and accepted all of the referenced reme believe that the information contained herein, and including all attac It is my independent professional judgment and opinion that the reme submission to the Department, conforms to, and is consistent with, th My conduct and decisions in this matter were made upon the exercise knowledge and skill ordinarily exercised by licensed site remediation with N.J.S.A. 58:10C-16, in the State of New Jersey at the time I perf I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowin representation or certification in any document or information submitts significant civil, administrative and criminal penalties, including licens imprisonment for conviction of a crime of the third degree.	I certify that I am a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C to conduct business in New Jersey. As the Licensed Site Remediation Professional of record for this remediation, I:				
☐ directly oversaw and supervised all of the referenced remedi ⊠ personally reviewed and accepted all of the referenced reme I believe that the information contained herein, and including all attac It is my independent professional judgment and opinion that the reme submission to the Department, conforms to, and is consistent with, th My conduct and decisions in this matter were made upon the exercise knowledge and skill ordinarily exercised by licensed site remediation with N.J.S.A. 58:10C-16, in the State of New Jersey at the time I perf I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowing representation or certification in any document or information submitts significant civil, administrative and criminal penalties, including licens imprisonment for conviction of a crime of the third degree.	ABLE]:				
I believe that the information contained herein, and including all attac It is my independent professional judgment and opinion that the reme submission to the Department, conforms to, and is consistent with, th My conduct and decisions in this matter were made upon the exercise knowledge and skill ordinarily exercised by licensed site remediation with N.J.S.A. 58:10C-16, in the State of New Jersey at the time I perf I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowin representation or certification in any document or information submitt significant civil, administrative and criminal penalties, including licens imprisonment for conviction of a crime of the third degree.	☐ directly oversaw and supervised all of the referenced remediation, and\or ⊠ personally reviewed and accepted all of the referenced remediation presented herein.				
It is my independent professional judgment and opinion that the reme submission to the Department, conforms to, and is consistent with, th My conduct and decisions in this matter were made upon the exercise knowledge and skill ordinarily exercised by licensed site remediation with N.J.S.A. 58:10C-16, in the State of New Jersey at the time I perf I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowin representation or certification in any document or information submitt significant civil, administrative and criminal penalties, including licens imprisonment for conviction of a crime of the third degree.	I believe that the information contained herein, and including all attached documents, is true, accurate and complete.				
My conduct and decisions in this matter were made upon the exercis knowledge and skill ordinarily exercised by licensed site remediation with N.J.S.A. 58:10C-16, in the State of New Jersey at the time I perf I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowin representation or certification in any document or information submitt significant civil, administrative and criminal penalties, including licens imprisonment for conviction of a crime of the third degree.	It is my independent professional judgment and opinion that the remediation conducted at this site, as reflected in this submission to the Department, conforms to, and is consistent with, the remediation requirements in N.J.S.A. 58:10C-14.				
I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowin representation or certification in any document or information submitt significant civil, administrative and criminal penalties, including licens imprisonment for conviction of a crime of the third degree.	My conduct and decisions in this matter were made upon the exercise of reasonable care and diligence, and by applying the knowledge and skill ordinarily exercised by licensed site remediation professionals practicing in good standing, in accordance with N.J.S.A. 58:10C-16, in the State of New Jersey at the time I performed these professional services.				
	I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowingly or recklessly submitting false statement, representation or certification in any document or information submitted to the board or Department, etc., that there are significant civil, administrative and criminal penalties, including license revocation or suspension, fines and being punished by imprisonment for conviction of a crime of the third degree.				
LSRP Signature: 1. M. r.	Date: 9/24/1-				
LSRP Name/Title: Brian Worden/PRincipal Scientist	No Changes Since Last Submittal 🗌				
Company Name: AMEC Environment & Infrastructure, Inc.					
Completed forms should be sent to the municipal clerk, designate h	pealth department, and:				

NJ Department of Environmental Protection 401-05H PO Box 420 Trenton, NJ 08625-0420

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