Virginia Land Reco Form A – Cover Shee				
Instrument Type: Number of Parcels: 1 [ ] City [X] County	1/2018 DRC Number of Pages: 35 NRICO	RECORDED IN COUNTY OF HENRICO, VA HEIDI S. BARSHINGER <u>CLERK OF CIRCUIT COURT</u> FILED Oct 02, 2018 AT 10:48 am	BK 5 7 8	
<ul> <li>[ ] Grantor:</li> <li>[ ] Grantee:</li> <li>Consideration:</li> <li>Existing Debt:</li> <li>Actual Value/Assumed:</li> <li>PRIOR INSTRUMENT UNDER §</li> <li>Original Principal:</li> </ul>	\$0.00	BOOK 05785 START PAGE 2086 END PAGE 2122 INSTRUMENT # 201800030919	5 PG 2 0 8 6	
Fair Market Value Increa			erved For Deed Stamp Only)	
Original Book Number: Prior Recording At: [ ] City	Original Page Numb	er: Original Instrument Nu	nber:	
[] Grantor: 1 🔀 Grantee: CSX	TRANSPORTATION INC	Percentage In This Jurisdiction:	100%	
[] Grantee: GRANTEE ADDRESS Name: CSX TRANSPORT Address: 500 WATER ST City: JACKSONVILLE	te ere at Alexan manifile. I be de mineral pe	State: FL Zip Code:	32202	
Book Number:	Page Number:	Instrument Number:		
Parcel Identification Number Short Property Description		Tax Map Number: 01720A0000 0011		
Current Property Address City: RICHMOND	2401 CHARLES CITY ROAD	the second data for the second s	23231	
	MANKO GOLD KATCHER AN	State: VA Zip Code:	D KATCHER AND FOX L	
Recording Returned To: N	IICHAEL M. MELOY		2	
	UE - SUITE 901 MANKO GOI			
City: BALA CYNWYD		State: PA Zip Code:	19004	
FORM CC-1570 Rev: 7/15 §§ 17.1-223, 17.1-227.1, 17	Page 1	of 1	Cover Sheet A	

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When recorded, return to: Michael M. Meloy Manko, Gold, Katcher & Fox, LLP Suite 901 401 City Avenue Bala Cynwyd, PA 19004

Tax Map or Grid Parcel Identification No.: 814-709-0923 Property Address: 2401 Charles City Road, Richmond, Virginia 23231 Remediation Program Site Identification No.: EPA Identification No. VAD003121977

Grantor, Grantee and Holder: CSX Transportation, Inc.

#### ENVIRONMENTAL COVENANT

This Environmental Covenant is made and entered into as of the <u>b</u> day of <u>Anjust</u>, 2018, by CSX Transportation, Inc. ("CSXT"), which has a mailing address of 500 Water Street, Jacksonville, Florida 32202. CSXT is the owner of the Property identified in Paragraph 1, below, and is the Grantor as that term is used in this Environmental Covenant. CSXT is also the Grantee and Holder of the Environmental Covenant. The Virginia Department of Environmental Quality (hereinafter referred to as the "Agency" or "VADEQ"), which has an address of 1111 East Main Street, Suite 1400, Richmond, Virginia 23219, also joins in this Environmental Covenant. This Environmental Covenant is executed pursuant to the Virginia Uniform Environmental Covenants Act ("UECA"), § 10.1-1238 et seq. of the Code of Virginia. This Environmental Covenant subjects the Property identified in Paragraph 1, below, to the activity and use limitations in this document.

#### 1. Property Affected.

The property affected by this Environmental Covenant (hereinafter referred to as the "Property") is located in the eastern part of Henrico County, Virginia approximately 2.5 miles east of the City of Richmond, Virginia with a street address of 2401 Charles City Road, Richmond, Virginia 23231, and is further described as follows: The Property is approximately 800 feet wide and 2,750 feet long. A figure showing the boundaries of the Property is attached hereto as **Exhibit A**. A legal description (metes and bounds) of the Property is attached hereto as **Exhibit B**. The latitude and longitude of the center of the Property is 37.5042830°, -77.3582968° (WGS, 1984).

#### 2. Description of Contamination and Remedy.

(a) The administrative record relating to the investigation and remediation of the Property is available at the offices of Region III of the United States Environmental Protection Agency ("EPA") currently located at 1650 Arch Street, Philadelphia, Pennsylvania 19103. The administrative record is also available at the offices of VADEQ at 1111 East Main Street, Suite 1400, Richmond, Virginia 23219.

(b) The Property was historically used as a wood treating facility by Koppers Company, Inc. from 1948 to 1983 to produce creosote-treated railroad cross ties. Thereafter,

Beazer East, Inc. ("Beazer") acquired the Property through a series of corporate transactions and ultimately transferred the Property to CSXT on 21 March 1997. The historical wood treating operations caused various environmental impacts to soils and groundwater at the Property.

Environmental conditions at the Property have been evaluated and corrective measures for the Property have been implemented pursuant to the corrective action program under the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. §§ 6901 – 6992k. This work has taken place in accordance with the terms of an Administrative Order on Consent (the "Consent Order") that Beazer and EPA entered into on 24 April 1991 pursuant to Section 3008(h) of RCRA, 42 U.S.C. § 6928(h). The obligations under the Consent Order were transferred from Beazer to CSXT effective 22 April 1998 in connection with transfer of the Property from Beazer to CSXT in 1997.

In compliance with the terms of the Consent Order, CSXT completed a Corrective Measures Study ("CMS") at the Property. The work associated with the CMS for the Property proceeded in multiple phases and culminated in the submission of a final CMS Report to EPA and VADEQ on 19 June 2009. The final version of the CMS Report was approved by EPA on 13 July 2009. Thereafter, EPA issued a Statement of Basis on 29 July 2009 summarizing the proposed corrective measures for the Property selected by EPA. A copy of the Statement of Basis is included in the administrative record for the Property described above. After seeking public comments regarding the Statement of Basis, EPA issued the Final Decision and Response to Comments ("FDRTC") document selecting the final remedy for the Property pursuant to the RCRA corrective action program on 21 December 2009. A copy of the FDRTC document is attached hereto as **Exhibit C**.

In addition to implementing the requirements of the Consent Order, CSXT has conducted post-closure care of a closed hazardous waste surface impoundment at the Property pursuant to a hazardous waste management permit initially issued by VADEQ with an effective date of 5 May 2000. On 30 October 2009, CSXT submitted a permit application to renew the hazardous waste management permit for post-closure activities relating to the closed hazardous waste surface impoundment at the Property. With concurrence from EPA and as authorized pursuant to 40 C.F.R. §§ 264.90(f) and 264.110(c), incorporated by reference in Virginia's hazardous waste management regulations at 9 Va. Admin. Code § 20-60-264, the site-wide corrective measures described in the FDRTC document were incorporated into the hazardous waste management permit (referred to hereinafter as the "Corrective Action Permit") issued by VADEQ on 17 August 2010. The Corrective Action Permit became effective on 16 September 2010.

The corrective measures selected by EPA for the Property focused on addressing releases of wood treating-related chemicals – mainly polynuclear aromatic hydrocarbons ("PAHs") and acid extractable phenolic compounds ("phenols") – at the Property. The corrective measures included actions to address conditions at seven areas of concern ("AOCs") identified at the Property. Key elements of the corrective measures selected by EPA included (1) removal of structures and equipment remaining at the Property, (2) construction of a slurry wall to contain significantly impacted areas near the north end of the Property, (3) excavation of soils from other targeted portions of the Property, (4) consolidation of excavated materials inside the

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slurry wall containment area, (5) construction of an engineered cap over the consolidated materials within the slurry wall containment area, (6) recovery of free product at locations inside the slurry wall containment area, (7) treatment of groundwater outside the slurry wall containment area using *in situ* chemical oxidation ("ISCO") and natural attenuation processes, (8) dewatering, backfilling and capping of the former water supply pond at the Property, (9) implementing certain activity and use limitations, and (10) conducting long-term monitoring and operation and maintenance ("O&M") activities.

Construction of the corrective measures at the Property took place between 2014 and 2016 in accordance with various design documents reviewed and approved by EPA and VADEQ. On 29 September 2016, EPA issued a letter to CSXT approving the revised Corrective Measures Implementation Construction Completion Report for the Property.

#### 3. Activity and Use Limitations.

(a) The Property is subject to the activity and use limitations set forth below, which shall run with the land and become binding on CSXT as Grantor and any successors, assigns, tenants, agents, employees and other persons under its control, until such time as this Environmental Covenant may terminate as provided by law. The activity and use limitations are summarized in Section 6.4 of the Statement of Basis issued by EPA for the Property and are described in Section 5.4 of the Corrective Measures Implementation Plan for the Property dated August 2010 as approved by EPA in a letter dated 27 August 2010. The then current owner of the Property, and its tenants, agents, employees and other persons under its control, shall comply with the following:

- (i) The Property shall only be used for non-residential purposes and shall not be used for residential purposes (including improvements, structures or dwellings used for living accommodations such as single family homes, multiple family dwellings, detached housing, condominiums, apartment buildings, dormitories, senior citizen housing and other residential-style facilities; schools; day care centers; child care centers; hospitals; and inpatient health care facilities).
- (ii) Groundwater from beneath the Property shall not be used for any purpose; provided, however, that the collection of groundwater samples and the installation and use of groundwater monitoring, recovery, injection or extraction wells or similar devices used for or related to the performance of groundwater assessment or remediation shall not be prohibited.
- (iii) Subsurface soils at the Property shall not be excavated except in conformance with an appropriate soil management plan.
- (iv) No activities that would interfere with or adversely impact the slurry wall that has been installed at the Property may be undertaken.

(v) The cap over the slurry wall containment area shall be periodically inspected and maintained.

(b) Geographic coordinate lists defining the boundary of each area, depicted as polygon, to which the activity and use limitations set forth above apply are as follows:

(i) The activity and use limitations contained in Paragraphs 3(a)(i), 3(a)(ii) and 3(a)(iii), above (relating to the Property as a whole), apply to the area described in Exhibit D. A table containing the geographic coordinates for the area described in Exhibit D is set forth below:

Point #	Northing	Easting	Latitude (Dd)	Longitude (Dd)
2000	3710259.60	11814502.24	37.5072644	-77.3568339
2001	3709803.01	11814493.73	37.5060108	-77.3568823
2002	3708032.57	11814494.17	37.5011488	-77.3569547
2003	3707519.93	11814857.03	37.4997289	-77.3557254
2004	3707484.64	11814923.21	37.4996298	-77.3554987
2005	3707346.89	11815558.45	37.4992303	-77.3533149
2006	3707325.88	11815553.89	37.4991728	-77.3533315
2007	3707586.38	11814352.61	37.4999282	-77.3574613
2008	3707664.69	11814154.28	37.5001498	-77.3581416
2009	3707701.72	11813983.51	37.5002572	-77.3587287
2010	3708334.93	11813694.07	37.5020057	-77.3597000
2011	3710670.15	11813693.48	37.5084187	-77.3596048
2012	3710259.60	11814502.24	37.5072644	-77.3568339

#### **Property Boundary Point Table**

#### **Property Boundary Curve Table**

Curve #	Delta	Radius	Length	Tangent	Chord	<b>Chord Bearing</b>
C1	70°33'51"	543.69'	669.59'	384.70'	628.07'	S35°17'31"E
C2	15°53'49"	770.99'	213.92'	107.65'	213.23'	S68°27'12"E
C3	48°59'49"	839.49'	717.90'	382.55'	696.22'	S24°33'57"E

(ii) The activity and use limitations contained in Paragraph 3(a)(iv), above (relating to the location where the slurry wall is present at the Property), apply to the area described in Exhibit E. A table containing the geographic coordinates for the area described in Exhibit E is set forth below:

Point #	Northing	Easting	Latitude (Dd)	Longitude (Dd)
16280	3710125.68	11814402.00	37.5069000	-77.3571851
16285	3710105.13	11814401.32	37.5068436	-77.3571883
16292	3710085.66	11814401.87	37.5067901	-77.3571872
16300	3710059.64	11814400.96	37.5067186	-77.3571914
16309	3710046.15	11814400.66	37.5066816	-77.3571930

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Point #	Northing	Easting	Latitude (Dd)	Longitude (Dd)
16315	3710025.87	11814401.14	37.5066259	-77.3571922
16322	3710009.39	11814400.82	37.5065807	-77.3571940
16329	3709987.14	11814400.41	37.5065196	-77.3571963
16338	3709967.58	11814400.20	37.5064659	-77:3571979
16343	3709948.21	11814400.09	37.5064127	-77.3571991
16350	3709929.10	11814400.23	37.5063602	-77.3571994
16355	3709911.68	11814399.99	37.5063123	-77.3572009
16362	3709894.17	11814399.58	37.5062643	-77.3572031
25065	3710105.54	11813841.53	37.5068633	-77.3591180
25066	3710127.96	11813842.10	37.5069248	-77.3591151
25067	3710150.29	11813842.18	37.5069862	-77.3591139
25068	3710173.39	11813842.31	37.5070496	-77.3591125
25069	3710194.08	11813842.23	37.5071064	-77.3591119
25070	3710215.59	11813842.54	37.5071655	-77.3591099
25071	3710237.25	11813842.60	37.5072249	-77.3591088
25072	3710261.06	11813842.79	37.5072903	-77.3591071
25073	3710280.58	11813842.80	37.5073439	-77.3591063
25074	3710301.04	11813842.98	37.5074001	-77.3591048
25075	3710311.03	11813843.11	37.5074275	-77.3591040
25076	3710341.37	11813892.00	37.5075092	-77.3589342
25077	3710341.33	11813912.30	37.5075084	-77.3588642
25078	3710340.68	11813933.36	37.5075060	-77.3587916
25079	3710340.07	11813954.50	37.5075036	-77.3587188
25080	3710339.66	11813976.53	37.5075017	-77.3586428
25081	3710339.14	11813997.81	37.5074996	-77.3585695
25082	3710339.31	11814020.83	37.5074993	-77.3584901
25083	3710339.09	11814044.37	37.5074979	-77.3584090
25084	3710339.02	11814067.07	37.5074970	-77.3583308
25085	3710339.12	11814089.11	37.5074965	-77.3582548
25086	3710339.14	11814109.99	37.5074959	-77.3581828
25087	3710339.51	11814132.69	37.5074961	-77.3581045
25088	3710338.70	11814153.69	37.5074932	-77.3580322
25089	3710338.41	11814176.00	37.5074917	-77.3579553
25090	3710338.14	11814198.24	37.5074902	-77.3578786
25091	3710337.99	11814216.58	37.5074892	-77.3578154
25092	3710338.52	11814239.36	37.5074899	-77.3577369
25093	3710339.31	11814253.59	37.5074916	-77.3576878
25094	3710337.01	11814260.55	37.5074850	-77.3576639
25095	3710329.30	11814269.53	37.5074636	-77.3576332

Coordinates for Area Described in Exhibit E (Continued)

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Point #	Northing	Easting	Latitude (Dd)	Longitude (Dd)
25096	3710310.05	11814285.36	37.5074102	-77.3575795
25097	3710294.63	11814296.53	37.5073675	-77.3575416
25099	3710261.40	11814320.53	37.5072754	-77.3574602
25100	3710244.75	11814332.24	37.5072293	-77.3574206
25101	3710228.43	11814345.22	37.5071840	-77.3573765
25102	3710211.53	11814357.62	37.5071372	-77.3573345
25103	3710196.34	11814367.62	37.5070952	-77.3573007
25104	3710182.70	11814378.82	37.5070573	-77.3572626
25105	3710165.90	11814390.89	37.5070108	-77.3572217
25107	3710149.47	11814400.67	37.5069653	-77.3571887
25126	3709870.84	11814400.77	37.5062002	-77.3571999
25127	3709849.88	11814399.88	37.5061426	-77.3572039
25128	3709826.42	11814398.92	37.5060782	-77.3572082
25129	3709805.30	11814398.66	37.5060202	-77.3572099
25130	3709781.97	11814398.56	37.5059562	-77.3572113
25131	3709763.87	11814399.64	37.5059065	-77.3572083
25132	3709750.93	11814392.01	37.5058711	-77.3572352
25133	3709740.84	11814381.06	37.5058438	-77.3572733
25134	3709734.92	11814369.03	37.5058279	-77.3573150
25135	3709735.00	11814349.05	37.5058288	-77.3573839
25136	3709734.82	11814328.19	37.5058290	-77.3574558
25137	3709735.13	11814306.83	37.5058306	-77.3575294
25138	3709735.19	11814285.35	37.5058315	-77.3576035
25139	3709735.21	11814261.28	37.5058323	-77.3576864
25140	3709734.42	11814239.57	37.5058309	-77.3577613
25141	3709734.90	11814219.76	37.5058329	-77.3578296
25142	3709735.58	11814199.27	37.5058354	-77.3579002
25143	3709735.82	11814177.45	37.5058368	-77.3579754
25144	3709735.98	11814158.03	37.5058379	-77.3580423
25145	3709736.10	11814136.46	37.5058389	-77.3581167
25146	3709736.13	11814113.46	37.5058398	-77.3581960
25147	3709735.46	11814091.86	37.5058386	-77.3582705
25148	3709736.11	11814068.58	37.5058412	-77.3583507
25149	3709735.50	11814047.45	37.5058402	-77.3584236
25150	3709735.12	11814026.01	37.5058399	-77.3584975
25151	3709735.43	11814006.45	37.5058414	-77.3585649
25156	3710081.87	11813841.75	37.5067983	-77.3591182
25157	3710061.45	11813841.70	37.5067422	-77.3591192
25158	3710040.59	11813841.59	37.5066849	-77.3591205

Coordinates for Area Described in Exhibit E (Continued)

Point #	Northing	Easting	Latitude (Dd)	Longitude (Dd)
25159	3710020.67	11813841.50	37,5066302	-77.3591216
25160	3710005.51	11813841.35	37.5065886	-77.3591228
25161	3709980.28	11813841.07	37.5065193	-77.3591248
25162	3709960.91	11813840.78	37.5064661	-77.3591266
25163	3709939.79	11813840.39	37.5064081	-77.3591288
25164	3709920.10	11813840.56	37.5063541	-77.3591291
25165	3709896.32	11813840.76	37.5062887	-77.3591293
25166	3709874.16	11813840.54	37.5062279	-77.3591310
25167	3709846.05	11813839.07	37.5061508	-77.3591373
25168	3709824.92	11813840.01	37.5060927	-77.3591349
25169	3709805.32	11813839.84	37.5060389	-77.3591363
25170	3709784.97	11813841.53	37.5059829	-77.3591313
25171	3709765.84	11813846.19	37.5059302	-77.3591161
25172	3709744.79	11813863.03	37.5058719	-77.3590589
25173	3709737.55	11813881.00	37.5058514	-77.3589972
25174	3709735.65	11813901.56	37.5058455	-77.3589265
25175	3709736.15	11813921.02	37.5058462	-77.3588594
25176	3709735.46	11813939.74	37.5058437	-77.3587949
25177	3709735.76	11813987.34	37.5058430	-77.3586308
25178	3710341.15	11813871.96	37.5075093	-77.3590033
25179	3710331.50	11813854.93	37.5074834	-77.3590624
25180	3710315.68	11813842.88	37.5074403	-77.3591046
25181	3709735.35	11813964.17	37.5058426	-77.3587106

Coordinates for Area Described in Exhibit E (Continued)

(iii) The activity and use limitations contained in Paragraph 3(a)(v), above (relating to the location where the cap is present over the slurry wall containment area at the Property), apply to the area described in Exhibit
 F. A table containing the geographic coordinates for the area described in Exhibit
 Exhibit F is set forth below:

Point #	Northing	Easting	Latitude (Dd)	Longitude (Dd)
40800	3710330.55	11813840.61	37.5074812	-77.3591118
40801	3710342.32	11813852.79	37.5075131	-77.3590693
40802	3710347.82	11813871.90	37.5075276	-77.3590032
40803	3710347.26	11813921.85	37.5075244	-77.3588310
40804	3710347.39	11813971.98	37.5075231	-77.3586582
40805	3710347.18	11814021.91	37.5075209	-77.3584861
40806	3710346.89	11814071.85	37.5075184	-77.3583140
40807	3710346.55	11814121.83	37.5075158	-77.3581417
40808	3710346.32	11814171.90	37.5075135	-77.3579691

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Point #	Northing	Easting	Latitude (Dd)	Longitude (Dd)
40809	3710346.09	11814221.94	37.5075112	-77.3577966
40810	3710346.05	11814269.66	37.5075096	-77.3576321
40811	3710331.88	11814279.93	37.5074703	-77.3575973
40812	3710281.96	11814315.98	37.5073320	-77.3574751
40813	3710231.93	11814351.96	37.5071934	-77.3573532
40814	3710181.90	11814387.86	37.5070548	-77.3572315
40816	3710132.10	11814409.55	37.5069173	-77.3571588
40817	3710082.07	11814409.06	37.5067800	-77.3571626
40818	3710031.86	11814408.76	37.5066421	-77.3571657
40819	3709982.12	11814408.44	37.5065055	-77.3571689
40820	3709932.00	11814407.63	37.5063679	-77.3571737
40821	3709881.97	11814407.33	37.5062305	-77.3571769
40822	3709831.74	11814407.08	37.5060926	-77.3571798
40823	3709781.92	11814406.79	37.5059558	-77.3571829
40824	3709757.45	11814406.41	37.5058886	-77.3571852
40825	3709734.44	11814398.70	37.5058256	-77.3572128
40826	3709724.55	11814386.34	37.5057989	-77.3572558
40827	3709721.41	11814376.80	37.5057906	-77.3572888
40828	3709722.71	11814321.85	37.5057960	-77.3574782
40829	3709722.69	11814271.75	37.5057976	-77.3576509
40830	3709723.78	11814221.94	37.5058022	-77.3578226
40831	3709724.87	11814171.96	37.5058069	-77.3579948
40832	3709726.04	11814121.82	37.5058118	-77.3581676
40833	3709726.86	11814071.99	37.5058157	-77.3583393
40834	3709728.19	11814022.11	37.5058210	-77.3585112
40835	3709728.49	11813972.02	37.5058235	-77.3586839
40836	3709728.93	11813921.81	37.5058264	-77.3588569
40837	3709729.00	11813880.95	37.5058279	-77.3589978
40838	3709730.08	11813871.84	37.5058312	-77.3590291
40839	3709735.80	11813856.11	37.5058474	-77.3590831
40840	3709749.01	11813841.57	37.5058842	-77.3591327
40841	3709760.31	11813835.45	37.5059154	-77.3591533
40842	3709778.70	11813831.91	37.5059660	-77.3591648
40843	3709831.92	11813832.26	37.5061122	-77.3591613
40844	3709881.95	11813832.56	37.5062495	-77.3591582
40845	3709931.86	11813832.69	37.5063866	-77.3591557
40846	3709982.74	11813833.05	37.5065263	-77.3591523
40847	3710031.75	11813833.34	37.5066609	-77.3591493
40848	3710081.96	11813833.71	37.5067988	-77.3591459

Coordinates for Area Described in Exhibit F (Continued)

Point #	Northing	Easting	Latitude (Dd)	Longitude (Dd)
40849	3710131.82	11813833.87	37.5069357	-77.3591433
40850	3710181.86	11813834.27	37.5070731	-77.3591398
40851	3710232.02	11813834.41	37.5072109	-77.3591373
40852	3710282.07	11813834.71	37.5073483	-77.3591341
40853	3710310.55	11813834.75	37.5074265	-77.3591328

#### Coordinates for Area Described in Exhibit F (Continued)

#### 4. Notice of Limitations in Future Conveyances.

Unless and until this Environmental Covenant terminates, each instrument hereafter conveying any interest in the Property subject to this Environmental Covenant shall contain a notice of the activity and use limitations set forth in this Environmental Covenant and shall provide the recorded location of this Environmental Covenant.

#### 5. <u>Compliance and Use Reporting</u>.

(a) By the end of every fifth January following the Agency's approval of this Environmental Covenant and within thirty (30) days after receipt of a written request from the Agency, the then current owner of the Property shall submit to the Agency and to CSXT as the Holder of this Environmental Covenant written documentation stating whether or not the activity and use limitations in Paragraph 3 of this Environmental Covenant are being observed. This documentation shall be signed by a qualified and certified professional engineer who has inspected and investigated compliance with this Environmental Covenant.

(b) In addition, within one (1) month after any of the following events, the then current owner of the Property shall submit to the Agency and to CSXT as the Holder of this Environmental Covenant written documentation describing the following:

- (i) noncompliance with the activity and use limitations in Paragraph 3 of this Environmental Covenant;
- (ii) transfer of the Property;
- (iii) changes in use of the Property that would violate the activity and use limitations in Paragraph 3 of this Environmental Covenant; or
- (iv) the filing of a permit application for any building or site work if the building or proposed site work will affect the contamination on the Property subject to this Environmental Covenant.

#### 6. Access by the Holder and the Agency.

In addition to any rights already possessed by the Holder and the Agency, this Environmental Covenant grants to CSXT as the Holder and the Agency a right of reasonable access to the Property in connection with the implementation, inspection or enforcement of this Environmental Covenant.

#### 7. Subordination.

Based on a title review conducted by and on behalf of the Grantor regarding title to the Property, no encumbrances on the Property have been identified that would need to be subordinated prior to execution of this Environmental Covenant by the Agency and the Holder.

#### 8. Recording and Proof and Notification.

(a) Within ninety (90) days after the date of the Agency's approval of this Environmental Covenant, the Grantor shall record, or cause to be recorded, this Environmental Covenant with the Clerk of the Circuit Court for Henrico County. The Grantor shall likewise record, or cause to be recorded, any amendment, assignment, or termination of this Environmental Covenant with the Clerk of the Circuit Court for Henrico Count within ninety (90) days after its execution. Any environmental covenant or amendment, assignment, or termination of an environmental covenant recorded outside these periods shall be invalid and of no force and effect.

(b) The Grantor shall send a file-stamped copy of this Environmental Covenant, and of any amendment, assignment, or termination, to the Holder and the Agency within sixty (60) days after recording. Within that time period, the Grantor also shall send a file-stamped copy of this Environmental Covenant to the County Manager for Henrico County, any persons who are in possession of the Property who are not the Grantor, any other parties to whom notice is required pursuant to UECA.

#### 9. Termination or Amendment.

This Environmental Covenant is perpetual and runs with the land unless terminated or amended (including assignment) in accordance with UECA.

#### 10. Enforcement of Environmental Covenant.

This Environmental Covenant shall be enforced in accordance with § 10.1-1247 of the Code of Virginia.

#### 11. Severability.

The paragraphs of this Environmental Covenant shall be severable and should any part hereof be declared invalid or unenforceable, the remainder shall continue in full force and effect.

#### [SIGNATURES ON NEXT PAGE]

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BK 5785PG 2097 IN WITNESS WHEREOF, CSX TRANSPORTATION, INC., as Grantor (Owner), Grantee and Holder, pursuant to due corporate authority, has caused its name to be signed hereto by its officers hereunto duly authorized and its corporate seal, duly attested, to be hereunto affixed in the following form:

Signed, sealed and delivered in the presence of:

CSX Transportation, Inc. Owner, Grantor, Grantee and Holder

By:

Name: Shantel N. Davis Title: Vice President – Real Estate and Facilities Date:

(SEAL) Attest Secretary

STEVEN ARMBRUST Print Name: - ASST. CORPORATE SECRETARY

STATE OF FLORIDA

COUNTY OF DUVAL

On this<sup>23<sup>16</sup></sup> day of February, 2018, before me, the undersigned notary public of the State of Florida and the County of Duval, personally appeared Shantel N. Davis, as Vice President -Real Estate and Facilities of CSX Transportation, Inc., provided to me through satisfactory evidence of identification, which was personal knowledge, who acknowledged herself to be the person whose name is subscribed to this Environmental Covenant, and acknowledged to me that she freely executed the same for the purposes therein contained, and who, being by me first duly sworn, did make oath, acknowledge and say that: she is Vice President - Real Estate and Facilities of CSX Transportation, Inc., the corporation described in and which executed said instrument; she is fully informed of the contents of the instrument; she knows the seal of said corporation; the seal affixed to said instrument is such seal; it was so affixed by authority of the Board of Directors of said corporation; she signed her name thereto for said corporation pursuant to Board authority; and instrument is the free act and deed of said corporation; and the conveyance herein is not part of a transaction, sale, lease, exchange or other transfer or conveyance of all or substantially all of the property and/or assets of the Grantor.

) SS:

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

REGINA A. TAYLOR-MURPHY (SEAL) Notary Public - State of Florida Notary Public My Comm. Expires Mar 15, 2019 Commission # FF 178182 Print Name: Kegina A Bonded through National Notary Assn. My Commission Expires:

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#### AGENCY:

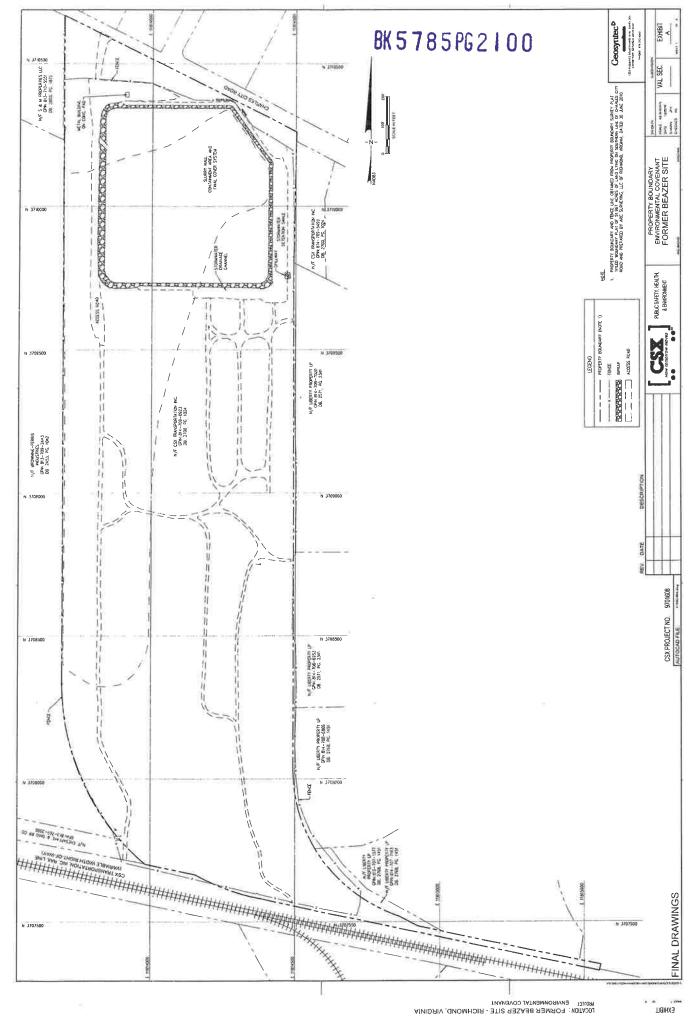
APPROVED by the Virginia Department of Environmental Quality as required by § 10.1-1238 et seq. of the Code of Virginia.

Date: 8/1/18

By (signature): 22 Name (printed) Justin Williams

Title: Director of Land Protection and Revitalization, Virginia Department of Environmental Quality

### EXHIBIT A





**EXHIBIT B** 

#### Exhibit B – Legal Property Description (Metes and Bounds)

Property Address: 2401 Charles City Road, Richmond, Henrico County, Virginia 23231 Grid Parcel Identification No.: 814-709-0923

The following Metes and Bounds describes the legal property boundary for the parcel of property located at 2401 Charles City Road, Richmond, Henrico County, Virginia 23231 and was obtained from the property boundary survey plat titled "Boundary Plat of 51.967 Acres of Land Lying on Southern Line of Charles City Road," dated 30 June 2010, and prepared by ARC Surveying, LLC of Richmond, Virginia.

Beginning at a point on the southern right-of-way line of Charles City Road and 909.35 feet from Eastport Boulevard west line extended;

thence South 01°04'08" West along a common line with property of CSX Transportation Inc., a distance of 456.66 feet to a C&ORR monument;

thence South 00°00'52" East along a common line with property of Liberty Property LP., a distance of 1770.44 feet to an iron rod;

thence along a curve having a radius of 543.69 feet and a central angle of 70°33'51", a tangent of 384.70 feet. and being subtended by a chord which bears South 35°17'31" East 628.07 feet, a distance of 669.59 feet to a C&ORR monument;

thence South 61°55'52" East, a distance of 75.00 feet to a C&ORR monument;

thence South 77°45'52" East, a distance of 650.00 feet to a C&ORR monument;

thence South 12°14'08" West a distance of 21.50 feet to a C&ORR monument on the northern right-ofway line of CSX Railroad Right-of-Way;

thence North 77°45'52" West, a distance of 1229.20 feet to an iron rod;

thence along a curve concave to the north having a radius of 770.99 feet and a central angle of 15°53'49", a tangent of 107.65 feet. and being subtended by a chord which bears North 68°27'12" West 213.23 feet, a distance of 213.92 feet to an iron rod;

thence North 77°45'52" West, a distance of 174.74 feet to an iron rod;

thence along a curve concave to the northeast having a radius of 839.49 feet and a central angle of 48°59'49", a tangent of 382.55 feet, and being subtended by a chord which bears North 24°33'57" West 696.22 feet, a distance of 717.90 feet;

thence North 00°00'52" West along common line with properties of Schneider Disposal Service and S+M Properties LLC, a distance of 2335.22 feet to a C&ORR monument;

thence South 63°05'11" East along the southern line of Charles City Road, a distance of 907.00 feet to the Point of Beginning.

Containing 51.967 acres, more or less.

EXHIBIT C

Exhibit C



### FINAL DECISION and RESPONSE TO COMMENTS

### CSX TRANSPORTATION, INCORPORATED FACILITY RICHMOND, VIRGINIA

December, 2009

#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

#### FINAL DECISION AND RESPONSE TO COMMENTS

#### Purpose

The United States Environmental Protection Agency ("EPA") is issuing this Final Decision and Response to Comments ("Final Decision") under the authority of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act ("RCRA") of 1976, and the Hazardous and Solid Waste Amendments ("HSWA") of 1984, 42 U.S.C. Sections 6901 to 6939(e), to the CSX Transportation Inc. ("CSXT") Facility for a facility located at 2401 Charles City Road in Henrico County, Richmond, Virginia (hereinafter the "Facility" or the "Site").

On July 29, 2009, EPA issued a Statement of Basis ("SB") which described the information gathered during the environmental investigation at the Facility, and the Proposed Remedy for the Facility. The SB is hereby incorporated into this Final Decision by reference and made a part hereof as Attachment A.

#### Final Decision

The selected remedy consists of source removal and source control through excavation, consolidation and capping of soils and sediments with concentrations of contaminants above remedial goals in a containment area (i.e. slurry wall). The primary source area of groundwater contamination will be controlled via construction of the slurry wall and free product removal. Targeted in-situ treatment and monitored natural attenuation will be used to address areas outside of the slurry wall containment area to restore groundwater to drinking water standards. In addition, institutional controls will be implemented to prevent current and potential future exposure to contamination.

The selected remedy includes the following components to address conditions at the Site and potential risks posed by those conditions:

- Demolition of buildings in areas where active remediation is required to facilitate construction of the corrective measures;
- Installation of a slurry wall to contain the source area and control groundwater migration away from the source area. The source area consists of the former treatment area: (Area of Concern ("AOC") 1 - Closed Surface Impoundment; AOC 2A - Creosote Unloading Area and Treatment Area; northern part of AOC 2B - Drip Tracks; AOC 2C - Former Tanks; AOC 3 - Container Storage Areas; northern part of AOC 4 - Temporary Drum Storage Areas; and AOC 6 - Water Supply Pond);
- Excavation of targeted surface soils, subsurface soils and sediments outside the slurry wall containment area with contaminant of concern ("COC") concentrations above Remedial Goals ("RGs"). Consolidation of the excavated material inside the slurry wall

containment area beneath an engineered cap to preclude future potential exposure to the excavated material by receptors.

- Restoration of excavated areas including backfilling with clean soil and establishing vegetative cover, and restoration of the Eastern Drainage Ditch ("EDD") area;
- Recovery of free product using recovery wells installed in the treatment area (AOC 2A) and northern portion of the drip track area (AOC 2B);
- A combination of targeted in situ chemical oxidation and oxidative bioremediation will be used, along with natural intrinsic attenuation processes, to treat groundwater outside of the slurry wall containment area. Monitored natural attenuation/groundwater monitoring will be conducted to evaluate the effectiveness and progress of treatment and natural attenuation processes;
- Dewatering, backfilling and capping of the former water supply pond (AOC 6);
- Implementation of institutional and engineering controls to prohibit activities that may interfere with the engineered remedy and restrict or prevent activities that may result in unacceptable risk to human health and the environment, and;
- Long-term monitoring and operation and maintenance ("O&M") including: monitoring the performance of the containment system, inspection/maintenance of cap and other site areas, free product recovery operations, monitored natural attenuation of groundwater, and monitoring and maintenance of institutional controls.

The following institutional controls will be used to ensure the short- and long-term reliability of the remedy. Institutional controls to be utilized at the Sife will:

- (1) prohibit the use of the Site for residential purposes (including, but not limited to, single family homes, multiple family dwellings, schools, day care centers, child care centers, apartment buildings, dormitories, other residential-style facilities, hospitals, and in-patient health care facilities);
- (2) prohibit the use of groundwater from beneath the Site;
- (3) restrict subsurface soil excavation at the Site except in conformance with an appropriate soil management plan;
- (4) restrict activities that would interfere with or adversely impact the integrity of the remedy or the slurry wall; and
- (5) require that the cap over the containment area be periodically inspected and maintained.

The institutional controls described above will be implemented at the Site through the following mechanisms:

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- A declaration of restrictive covenant or similar instrument consistent with applicable requirements under the laws of the Commonwealth of Virginia will be recorded with the real property records for the Site such that prospective purchasers of the Site will have constructive notice of land use restrictions. The declaration of restrictive covenants will contain the land use controls described above and will be recorded with the land records in the office of the clerk of the circuit court for the jurisdiction in which the Site is located within ninety (90) days of executing the declaration. The current owner and future owners of the Site will be obligated to comply with the recorded restrictive covenant since the covenant will run with the land.
- The existing post-closure permit for the closed surface impoundment (AOC 1) will be modified to include this final decision, and will be used as the controlling authority for implementation of the remedy through the VADEQ in consultation with EPA. The postclosure permit will also be modified, as appropriate, to include land use restrictions as described above.
- While on-Site groundwater is not currently used as a drinking water source and there are no plans for such future use, to provide additional protection, the selected remedy includes institutional controls to prohibit the development of on-Site wells for drinking water or other domestic uses at the Facility. A notification to prohibit well drilling under Virginia's Private Well Regulations, 12VAC 5-630-380 will be provided by CSXT to the local health district (Henrico Health Department) in writing describing the nature and extent, including a map, survey description, and geographic coordinates of the Facility-related contaminated groundwater located on the Facility property and offsite. The notice will be updated every two (2) years to reflect the latest contaminated groundwater plume boundary. A copy of the notification will be provided to EPA and VADEQ.
- CSXT will be required to submit biennial review reports on the effectiveness of the institutional controls in meeting the human health and environmental protection objectives. This review may include, but not be limited to, review of CSXT's compliance with the covenant requirements, groundwater and land uses within 0.5 mile of the Facility, and zoning maps or planning documents that may affect future land use in the impacted area. Additionally, CSXT will be required to submit five (5)-year review reports on the progress of the remedial measures and of meeting the cleanup standards or RGs. The Henrico Health Department and Virginia Department of Environmental Quality will be provided with CSXT's biennial review reports and five (5)-year review reports.

EPA and VADEQ will review the progress of the remedy activities to confirm that RGs have been met. If EPA and/or VADEQ determine that CSXT is not achieving RGs, EPA and/or VADEQ may require CSXT to perform additional studies and/or to modify the existing corrective measures. If new contamination is discovered or if the selected remedy cannot adequately mitigate risk to human health or the environment, additional corrective measures will be developed and implemented. In the event that EPA and/or VADEQ requires the performance of additional studies and/or the modification of the corrective measures selected in this final decision, an opportunity for public comment will be provided prior to the initiation of changes to the existing corrective measures, as necessary or appropriate.

#### Response to Comments

On July 29, 2009, this matter was publicly noticed in the Richmond Times-Dispatch, Richmond, Virginia newspaper. The thirty (30) - day comment period ended on August 31, 2009. No requests for a public meeting were received by EPA; however, comments on the proposed remedy were received from one resident of Charlottesville, VA. EPA has evaluated and provided responses to the most significant of these comments in the following section of this document. EPA's decision is unchanged from that proposed in the SB.

General comment 1: The public notice process used by EPA for the CSXT site was incorrect.

EPA response: EPA used an acceptable approach in fulfilling its public notice and public participation requirements for the CSXT Site. This approach was consistent with standard Agency practice and relevant guidance.

<u>General comment 2</u>: The administrative record procedure used by EPA for the CSXT SB was inconvenient with regard to access to EPA guidance documents.

EPA response: EPA used an acceptable approach in making the CSXT Administrative Record ("AR") available for public review. While several EPA guidance documents were listed in the AR Index for CSXT, paper copies of these documents were not reproduced as part of the CSXT AR. The Agency maintains and makes these documents freely available at all times using our Region III program specific internet site. In an effort to avoid unnecessary duplication and paper waste, EPA has promoted the use of the Regional web site for public access to program guidance documents for several years.

<u>General comment 3</u>: The proposed remedy uses containment instead of remediation and is not consistent with the NCP, EPA's OSWER Directives, and EPA guidance associated with Superfund and RCRA site cleanup.

EPA response: As described in Section 6 of the SB, the remedy proposed and selected by EPA for the CSXT Site includes source removal and source control components as well as in-situ treatment, monitored natural attenuation and institutional controls. This remedial strategy was thoroughly evaluated in the Corrective Measures Study Report and is consistent with the objectives and requirements of applicable EPA guidance for the RCRA Corrective Action program.

<u>Specific comment 4</u>: Section 2 of the SB does not include sufficient detail about the regulatory status, hazardous wastes managed at the site or existence of post-closure permit to enable reader to complete a meaningful review.

EPA response: Sections 2.1 and 3.2 of the SB include sufficient information to describe the RCRA regulatory status of the CSXT Facility and the post-closure permit issued by VADEQ for AOC 1. As stated in the Introduction, Section 1 of the SB, the information summarized in the SB can be found in greater detail in the work plans and reports submitted to EPA and VADEQ. The majority of these documents were included in the AR for the SB.

<u>Specific comment 5:</u> The SB fails to describe the specific hazardous wastes managed at the facility and does not properly consider the RCRA Land Disposal Restrictions ("LDRs") and other related requirements as part of the proposed remedy.

EPA response: The SB provides a summary of the investigation activities completed at the Site, the nature of the conditions found at the Site and the elements of the proposed remedy. Additional details including the identification of the listed hazardous wastes that have been managed at the Site as well as the nature and extent of soil, sediment, surface water and ground water contamination resulting from the previous operations is provided in the reports and documents used by EPA to support this decision. These reports also include an analysis of regulations and requirements that may be considered applicable to the CSXT Site.

As summarized in Section 6.2 of the SB and as discussed in greater detail in the CMS Report, EPA's policy entitled, "Use of the Area of Contamination (AOC) Concept During RCRA Cleanups (March 13, 1995) ("AOC Policy") has been used as a key component of the clean-up strategy developed for the CSXT Site. The AOC Policy allows for consolidation and other in situ waste management techniques to be used within an area of generally dispersed contamination without triggering RCRA permitting, LDRs or minimum technology requirements. EPA has recognized that application of the AOC Policy can be particularly useful in the context of remediating wood treating sites where contamination is present in generally dispersed areas and it is not technically feasible to distinguish between releases from individual AOCs. This policy has particular application to the CSXT Site in that the Site exhibits large contiguous areas of generally dispersed contamination that are linked through historical operational activities and the migration of contaminants from operational areas. Based on the findings of the RFI and the comingled nature of the contaminants found at the Site, EPA determined that taking a holistic approach to facility-wide corrective action would be both protective and efficient. This approach is consistent with EPA's RCRA Cleanup Reforms Guidance, the AOC Policy, and other related requirements.

<u>Specific comment 6</u>: Five of the seven AOCs identified in Section 3.2 of the SB are actually SWMUs with specific regulatory requirements which have not been appropriately addressed by the proposed corrective measures.

EPA response: SWMU designations apply to a broader universe of units than just hazardous waste management units that are subject to specific regulatory/permitting requirenments. Only the former hazardous waste impoundment at the Site qualified as a hazardous waste management unit. The RCRA corrective action process is designed to address Site-wide environmental issues. Section 3.2 of the SB provides a summary of the information contained in the 1996 RFI Report for the CSXT Site. The findings of the RFI were used to evaluate risks to human health and the environment posed by the contamination found at the Site on a facility-wide basis. The development of a facility-wide corrective action strategy for the Site included consideration of the one AOC that is addressed by a post closure permit with VADEQ, as discussed in more detail in the CMS Report.

<u>Specific comment 7:</u> Section 3.2 of the SB indicates that "free product" was encountered in shallow groundwater. What substance does this free product consist of? What product was produced at this facility?

EPA response: As described in the CMS Report, limited free product accumulation has been observed at 2 of the 70 monitoring wells installed at the Site. This free phase product is primarily residual creosote in a non-aqueous phase liquid form that remains in the clay soils at the Site as a result of the previous operations. The previous site owner, Koppers Company, produced creosote-treated railroad ties at the Site between 1949 and 1983.

<u>Specific comment 8:</u> The SB failed to consider ARARs related to groundwater cleanup and failed to require cleanup of site groundwater to MCLs.

EPA response: The impacted groundwater at the Site was properly evaluated and addressed by EPA in the SB consistent with applicable guidance and policy for the RCRA program. This evaluation included the consideration of the current and reasonably anticipated future use of the site, including groundwater use in the vicinity of the Site. As stated in the CMS Report, EPA and VDEQ share a specifically stated goal of restoring Site groundwater to its maximum beneficial use, i.e., drinking water. Section 3.1.9 of the CMS Report includes a specific objective for the CSXT Site that is consistent with EPA's and VADEQ's groundwater cleanup policies. Table 2 of the SB includes contaminant-specific Remedial Goals ("RGs") for Site groundwater which are either MCLs or RGs for contaminants without established MCLs. Groundwater RGs assume domestic use (i.e., drinking water). The selected remedy will ensure that RGs will be attained for groundwater outside the slurry wall, and that ICs are established to prohibit the development of on-Site wells for drinking water or other domestic uses. The specific time frame needed to meet the groundwater cleanup goals at the Site will be determined as part of the groundwater monitoring program to be conducted during implementation of the remedy.

The ARAR concept is directly applicable to final remedy decisions made in the CERCLA program but not the RCRA Corrective Action program. The RCRA program includes a similar evaluation and one of the balancing factors (effectiveness) is included in the remedy selection criteria. Compliance with applicable standards for the management of wastes is one of the effectiveness criteria that are evaluated for each Corrective Measures Alternative ("CMA") developed for the Site. Section 6.1.4 of the CMS Report includes a specific discussion regarding this matter.

<u>Specific comment 9</u>: The SB failed to discuss the presence of a deeper groundwater aquifer or to discuss measures to be taken to assure protection of the deeper aquifer.

EPA response: The SB provides a summary of information that can be found in greater detail in the reports included in the AR for the CSXT Site. Section 4 of the SB provides adequate information to summarize the Site geology, hydrogeology and surface water hydrology based on the findings of the Site investigation work. Additional details regarding the Site geology and stratigraphy (down to 265 ft. below ground surface.), the hydraulic features for these specific geologic units and the nature and extent of groundwater contamination resulting from the former operations are provided in the CMS Report. As stated in the CMS Report, the RFI work evaluated groundwater within two geologic formations and three distinct units or hydrogeologic zones. The results of this work demonstrated that the vertical extent of groundwater impacts is limited in depth to the upper two units because of the presence of an approximately 80 foot thick confining unit that exists below the surface aquifer so that further measures do not appear to be necessary at this time to protect the deeper aquifer. Although the upper portion of this confining

unit was evaluated during the RFI, no Site-related impacts were detected. Based on this and the results of long-term groundwater monitoring activities conducted at the Site, EPA and CSXT determined that the investigation was complete and the nature and extent of groundwater contamination was sufficiently delineated.

<u>Specific comment 10</u>: EPA failed to clearly establish remedial endpoints for soils and groundwater and EPA failed to establish projected timelines for the alternative technologies evaluated as part of the CMS Report or SB.

EPA response: Section 5 of the SB describes the Action Level Risk Assessment ("ALRA") approach used to identify the areas of the Site that may pose a risk and that require remediation based on the current and reasonably anticipated future receptors identified for the Site. This section also describes the process used to calculate numerical remedial goals ("RGs") and to identify remedial boundaries for soil and groundwater at the Site. These contaminant-specific and media-specific RGs are remediation endpoints or media cleanup targets for soils and groundwater. As noted in Section 5.2 of the SB, a remedial goal for a particular medium is the lowest (therefore the most conservative) contaminant concentration calculated for any receptor. Tables 1 and 2 in the SB clearly identify the RGs for the Site. Figures 3 through 5 of the SB illustrate the areas of the Site, and where remedial action is required. During implementation of the remedy, CSXT will be required to demonstrate that the remedial measures have resulted in the attainment of these RGs.

The evaluation of alternative technologies and their expected timelines was discussed in Section 4 of the CMS Report. This section presents the identification and screening of multiple corrective measures technologies based on their potential applicability to Site conditions, COCs, CMOs and RGs. Each technology was screened based on its expected effectiveness, implementability and cost. The consideration of estimated timelines associated with each of these technologies was included as part of the implementability and cost evaluation which is summarized in Table 4-1 of the CMS Report. Section 6 of the CMS Report includes a more refined evaluation of estimated timelines for implementation after the individual technologies were screened and combined into Corrective Measures Alternatives ("CMAs"). The estimated timeline for implementation is one of the technical factors considered as part of the evaluation of each CMA. This evaluation was adequately presented and all required factors were properly discussed in the final CMS Report for the Site.

<u>Specific comment 11</u>: Contaminants of concern ("COCs") in site soils, the transfer of COCs from soils to groundwater, and the evaluation of potential risks resulting from residential and industrial exposures were not properly considered by EPA in reviewing the effectiveness of proposed remedies for the CSXT Site.

EPA response: EPA and CSXT used an acceptable approach and considered all relevant and appropriate factors when evaluating potential remedies to address the nature and extent of contamination present at the Site, the migration pathways and human health and ecological risks associated with this contamination, and the current and reasonably anticipated use of the Site. It is not necessary to use indirect or modeled results to evaluate groundwater contamination and remedial alternatives when a substantial empirical groundwater database for the Site exists. The

Site risk assessment evaluated both residential and industrial receptors, as well as additional receptors including adolescent trespassers and construction workers.

<u>Specific comment 12</u>: Soils present at the Site above risk-based levels for protection of human health should be either removed or remediated to site-specific endpoints and all contaminated media should be handled in accordance with the RCRA LDR requirements.

EPA response: As proposed in the SB, and as stated herein, the selected remedy requires the remediation of soils that are contaminated above appropriate risk-based levels based on exposure scenarios that are considered realistic for the Site (worker exposure). The primary contaminants in Site soils are not mobile in the environment, and based on the results of long-term groundwater monitoring conducted at the Site, we have not observed a significant migration of soil contaminants to groundwater or significant changes in the extent or magnitude of groundwater contamination. In addition, the existence of a substantial groundwater database obviates the need for use of indirect or modeled results to evaluate groundwater.

As discussed in the SB and in EPA's response to specific comment 5 above, EPA and CSXT determined that the AOC Policy was appropriate for use as a key component of the clean-up strategy developed for the CSXT Site. The AOC Policy allows for consolidation and other *in situ* waste management techniques to be used within an area of generally dispersed contamination, like that which exists at the CSXT Site, without triggering RCRA permitting, LDRs or minimum technology requirements. The multi-component remedy described in the SB is consistent with EPA's AOC Policy.

Specific comment 13: The risk assessment summarized in the CMS is incomplete and not a baseline risk assessment including potential residential uses and fate and transport modeling of COCs from soil to groundwater in accordance with the NCP, RCRA Guidance, and EPA OSWER Directives under CERCLA and RCRA.

EPA response: EPA strives to make RCRA and CERCLA cleanups consistent but this Site is being remediated under RCRA. The risk assessment completed for the CSXT Site evaluated appropriate receptors and pathways based on the current and reasonably anticipated use of the Site, without considering institutional or engineering controls. For soils, realistic exposure scenarios included commercial workers, construction workers, and adolescent trespassers. For groundwater, child and adult residents, lifetime residents, and commercial workers were evaluated. As described in the SB, residential use of groundwater was evaluated, even though this was not considered to be realistic for future use of the Site. Based on the information collected to characterize the Site conditions and identify land uses(s) in the vicinity of the Site, as well as CSXT's plans for reuse of the property, EPA determined that residential use of soil was not a realistic future scenario requiring a detailed evaluation. In addition, EPA did not consider it to be necessary or appropriate to conduct fate and transport modeling to address the soil to groundwater pathway since sufficient empirical data were available to evaluate the extent of groundwater contamination resulting from the previous operations.

The SB and CMS Report provide a summary of the information EPA relied upon to evaluate risks and remedial measures required to return the Site to beneficial use. This approach is consistent with the objectives and requirements of applicable EPA guidance for the RCRA Corrective Action Program.

<u>Specific comment 14</u>: The groundwater at the Site should be remediated to MCLs and/or riskbased concentrations, throughout the plume, unless determined to be technically and economically impracticable. EPA has a procedure for such a determination which should be followed. The CMS and SB need to more clearly specify which areas of the Site fail the baseline risk assessment for soils (residential use and transfer to groundwater) and the groundwater remediation goals (drinking water use). The timeline to comply with the remediation goals for drinking water use of groundwater throughout the plume in all zones up to the point of compliance of the permitted "RU" needs to be identified.

EPA response: See EPA's response to specific comments 8 and 10, above.

Table 2 of the SB includes contaminant-specific Remedial Goals ("RGs") for Site groundwater which are either MCLs or RGs for contaminants without established MCLs. RGs for contaminants without MCLs also assume domestic use (i.e., drinking water) of groundwater. The selected remedy will ensure that MCLs or RGs will be attained for groundwater outside the slurry wall, and that ICs are established to prohibit the development of onsite wells for drinking water or other domestic uses. The specific time frame needed to meet the groundwater cleanup goals at the Site will be determined as part of the groundwater monitoring program to be conducted during implementation of the remedy.

Any determination of technical or economical impracticability of groundwater cleanup for the Site may be considered by EPA and VADEQ after the remedy is implemented and performance monitoring is conducted to evaluate the estimated time frame for attainment of the remedial goals.

Figures 3 through 5 of the SB clearly illustrate the areas of the Site where contaminants of concern ("COCs") are present above the RGs established for the Site, and where remedial action is required.

<u>Specific comment 15</u>: The SB and CMS Report do not specify the time frame of remediation that will be needed using the proposed methods to meet the remedial risk-based end points for soils or groundwater. The CMS or SB does not sufficiently address the appropriateness of the use of MNA or the time lines for cleanup associated with the clean-up alternatives.

EPA response: See EPA's response to specific comment 10 above, with regard to the evaluation of estimated timelines associated with each of the technologies and corrective measures alternatives (CMAs) presented in the CMS Report.

The appropriateness of using MNA as one part of the groundwater remedy for the Site is discussed in the CMS Report and other reports identified in the AR for the CSXT Site. This information is summarized in Section 6.3.2.4 of the SB. As described in the SB, a groundwater monitoring plan will be developed as part of the documentation required for remedy implementation. This plan will provide more details about the work that will be required to evaluate the rate at which MNA may be occurring in the dissolved phase plume outside the containment area. This plan will also identify alternative measures to be considered and implemented should it be determined that the remedial goals (RGs) for groundwater will not be met via the use of MNA within a reasonable time frame.

Specific comment 16: The SB does not specify the volume or mass of contaminated soils or media that is contaminated at the site or the volume or mass of contaminated soils or media that is proposed to be consolidated or "placed" and disposed in a proposed land-based unit on-site. The EPA proposes to leave a significant amount of contaminated soils and groundwater remaining at the site untreated in a unit that does not meet land-based RCRA landfill criteria or EPA's LDR requirements.

EPA response: The SB provides a summary of information that can be found in greater detail in the CMS and other reports included in the AR for the CSXT Site. Section 3.4 of the CMS Report provides a detailed discussion of the area and volume of media (soil, sediment, groundwater) that will be addressed as part of remedy implementation. This information was based on the findings of the RFI sampling work, and will be further refined during the preparation of design documents for remedy implementation.

See EPA's response to general comment 3 above, with regard to the remedial strategy developed for the CSXT Site. See EPA's response to specific comment 5 above, with regard to the use of EPA's AOC Policy as a key component of the clean-up strategy for the CSXT Site.

<u>Specific comment 17</u>: The AOCs and SWMUs at the site are clearly non-contiguous, therefore EPA's proposed use of AOC management is inappropriate.

EPA response: See EPA's response to specific comment 5 above, with regard to the use of the AOC Policy as a key component of the clean-up strategy for the CSXT Site.

EPA and CSXT determined that the AOC Policy was appropriate for use as a key component of the clean-up strategy developed for the CSXT Site. The AOC Policy allows for consolidation and other *in situ* waste management techniques to be used within an area of generally dispersed contamination, like that which exists at the CSXT Site, without triggering RCRA permitting, LDRs or minimum technology requirements. The multi-component remedy described in the SB is consistent with EPA's AOC Policy as well as the objectives and requirements of applicable guidance and policy for the RCRA Corrective Action Program.

<u>Specific comment 18</u>: EPA's proposed remedy is better defined as a Corrective Action Management Unit ("CAMU") and consequently, the materials must be subject to treatment standards identical to EPA's LDR standards prior to permanent disposal in a CAMU. The SB needs to be withdrawn and the CMS revised to reflect all ARARs.

EPA response: Section 3.1.2.2 of the CMS Report includes a summary and discussion of the CAMU regulations. While we considered the use of a CAMU at the Site, EPA chose to use the AOC Policy as a key component of the remedial strategy. This strategy will facilitate the timely yet protective implementation of a remedy that is consistent with the Site-specific corrective measures objectives, future land use plans, and CSXT's desire to return the Site to beneficial use.

<u>Specific comment 19</u>: EPA's proposed remedy is not in accordance with EPA's Presumptive Remedies Guidance for Wood Treating Sites.

EPA response: Section 3.1.1 of the CMS Report includes a summary and discussion of this EPA guidance document. EPA, VADEQ and CSXT considered this guidance document along with many other guidance documents when preparing a strategy for remediating the conditions at the

CSXT Site. However, EPA ultimately made a site-specific remedy decision that best met the corrective measures objectives established for the CSXT Site and that could return the Site to beneficial use in a reasonable time frame.

Specific comment 20: EPA's remedy is biased toward containment and MNA rather than treatment and destruction of highly toxic wastes, and has not been clearly justified by the CMS. The facility did not use the proper criteria to evaluate remedial alternatives in the CMS Report, and the ranking of each alternative appears to be arbitrary.

EPA response: See EPA's response to general comment 3, above.

The remedy proposed and selected by EPA for the CSXT Site includes source removal and source control components as well as in-situ treatment, monitored natural attenuation and institutional controls. This remedial strategy was thoroughly evaluated in the Corrective Measures Study Report in accordance with the appropriate remedy selection criteria, and is consistent with the objectives and requirements of applicable EPA guidance for the RCRA Corrective Action program.

#### Declaration

Based on the Administrative Record compiled for the corrective action at the CSXT Facility, I have determined that the remedy selected is protective of human health and the environment.

Date: 12 21 09

Abraham Ferdas, Director Land and Chemicals Division U.S. Environmental Protection Agency, Region III

EXHIBIT D

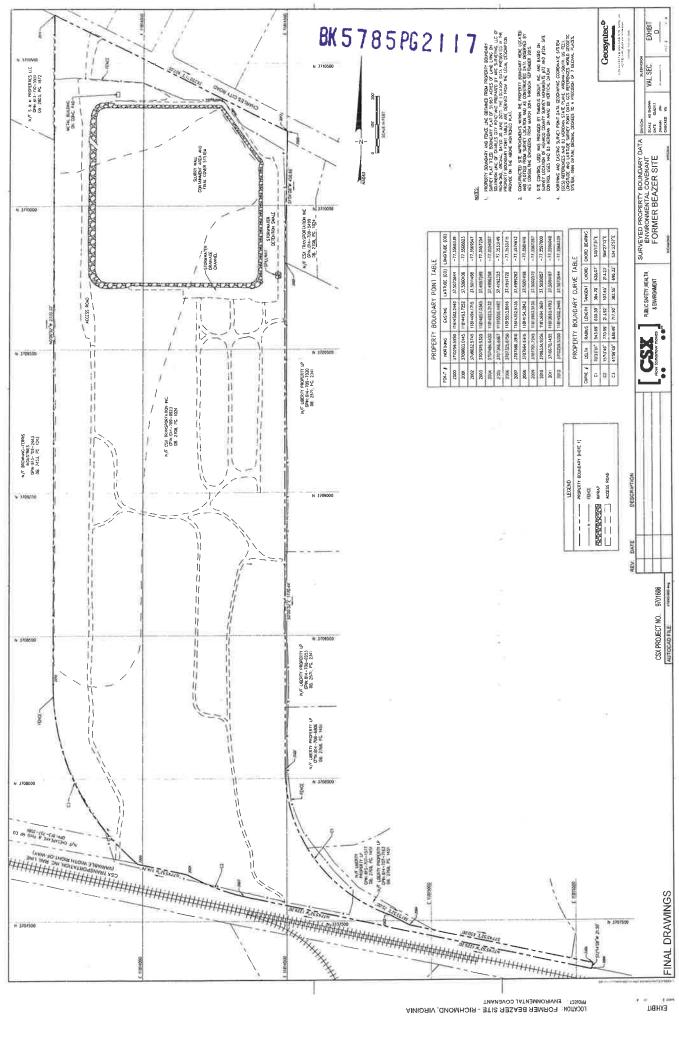
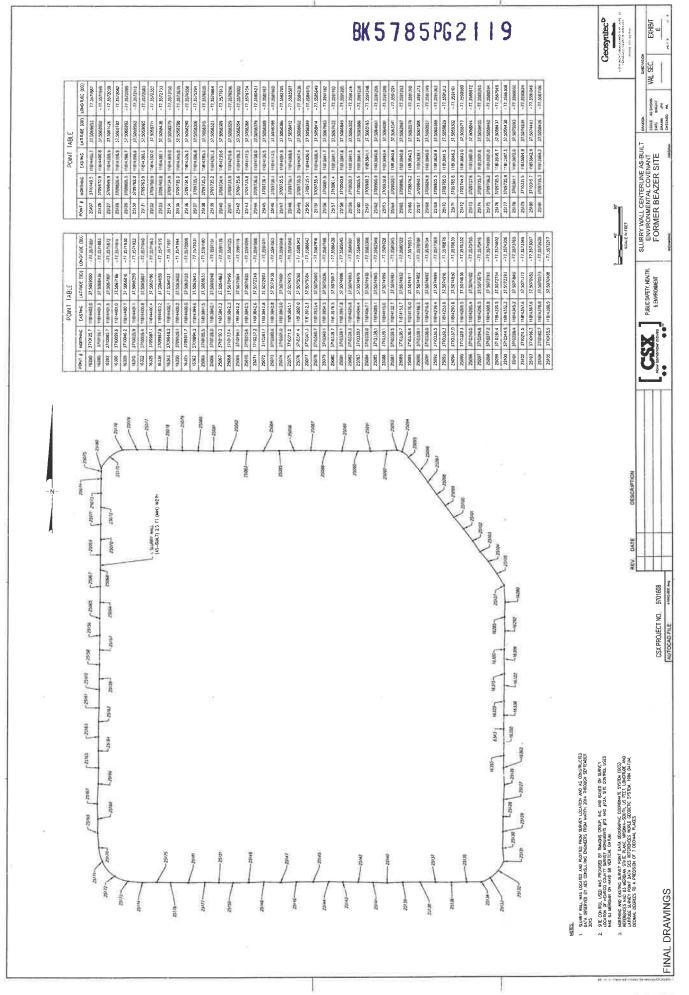


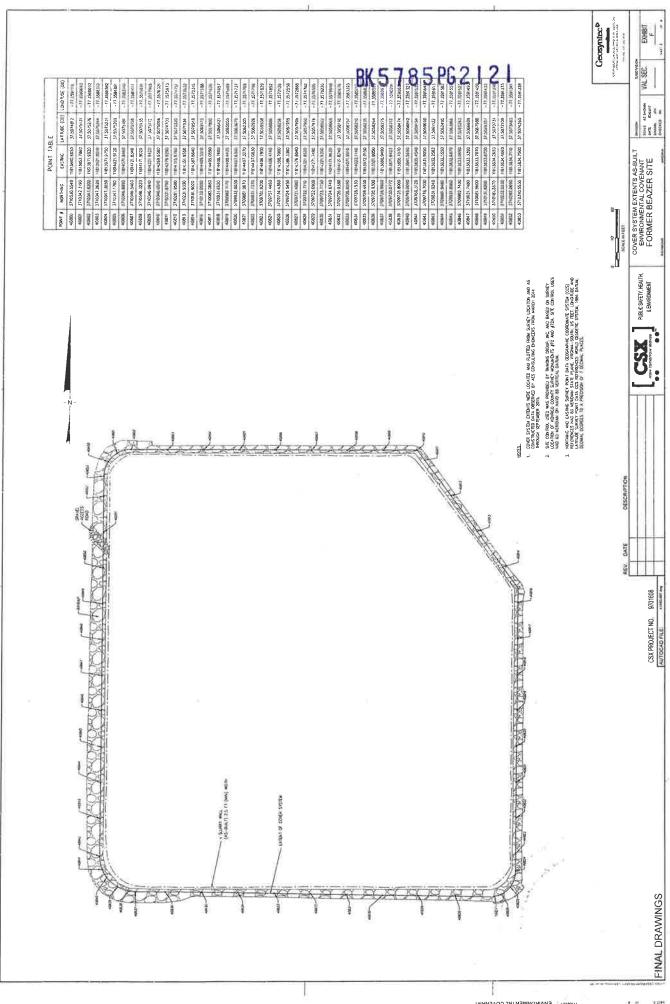
EXHIBIT E

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TIBIHX3

**EXHIBIT F** 





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### **CLERK'S CERTIFICATE**

DO NOT REMOVE FROM DOCUMENT

INSTRUMENT # 201800030919 RECORDED IN THE CLERK'S OFFICE OF HENRICO COUNTY ON OCTOBER 2, 2018 AT 10:48AM

> HEIDI S. BARSHINGER, CLERK RECORDED BY: TJJ