

**APPENDIX K**

**DEVELOPMENT OF PCULS AND PROPOSED CLEANUP LEVELS**



**Table K-1  
Ecology Preliminary Soil Cleanup Levels  
American Linen Supply Co Dexter Ave Site**

Chemical (all concentrations are in mg/kg)	A Most Stringent Soil PCUL Sat, with SW SL #s 1,5-7,10	B Most Stringent Soil PCUL Sat, No SW SL #s 1,5,10	C Most Stringent Soil PCUL Vadose, with SW SL #s 1,2-4,10	D Most Stringent Soil PCUL Vadose, No SW SL #s 1,2,10	SL-1 Direct Contact SL-Det	SL-2 Protect Drinking Water Vadose Zone LeachFW	SL-3 Protect Surface Water via Ground Water Vadose Zone LeachFW	SL-4 Protect Sediment via Ground Water Vadose Zone LeachFW	SL-5 Protect Drinking Water Saturated Zone Leach	SL-6 Protect Surface Water via Ground Water Saturated Zone LeachFW	SL-7 Protect Sediment via Ground Water Saturated Zone LeachFW	Basis - Saturated, No SW						Basis - Vadose, No SW								
												Direct Contact	Drinking Water	Surface Water	Sediment	Bank Erosion	TEE	Nat. Background	Direct Contact	Drinking Water	Surface Water	Sediment	Bank Erosion	TEE	Nat. Background	
1,1-Dichloroethane	2.6E-03	2.6E-03	4.1E-02	4.1E-02	1.8E+02	4.1E-02	na	2.4E+03	2.6E-03	na	1.6E+02		X						X							
1,2-Dichloroethane (EDC)	1.6E-03	1.6E-03	2.3E-02	2.3E-02	1.1E+01	2.3E-02	4.3E-02	1.5E+02	1.6E-03	2.9E-03	1.0E+01		X						X							
1,1-Dichloroethylene	2.5E-03	2.5E-03	4.6E-02	4.6E-02	4.0E+03	4.6E-02	2.0E+00	2.3E+05	2.5E-03	1.1E-01	1.3E+04		X						X							
cis-1,2-Dichloroethylene	5.2E-03	5.2E-03	7.8E-02	7.8E-02	1.6E+02	7.8E-02	na	8.4E+03	5.2E-03	na	5.5E+02		X						X							
trans-1,2-Dichloroethylene	3.2E-02	3.2E-02	5.2E-01	5.2E-01	1.6E+03	5.2E-01	5.2E-01	8.7E+04	3.2E-02	3.2E-02	5.5E+03		X	X					X	X						
1,2-Dichloroethylene (mixed isomers)	2.3E-02	2.3E-02	3.7E-01	3.7E-01	7.2E+02	3.7E-01	na	3.9E+04	2.3E-02	na	2.5E+03		X						X							
1,2-Dichloropropane	2.4E-04	1.7E-03	3.6E-03	2.5E-02	2.7E+01	2.5E-02	3.6E-03	3.7E+02	1.7E-03	2.4E-04	2.5E+01		X						X							
1,3-Dichloropropane	5.7E-02	5.7E-02	8.8E-01	8.8E-01	1.6E+03	8.8E-01	na	7.6E+04	5.7E-02	na	5.0E+03		X						X							
2,2-Dichloropropane	na	na	na	na	na	na	na	na	na	na	na															
1,1-Dichloropropene	na	na	na	na	na	na	na	na	na	na	na															
cis-1,3-Dichloropropene	6.9E-05	1.4E-04	1.1E-03	2.3E-03	1.0E+01	2.3E-03	1.1E-03	1.6E+02	1.4E-04	6.9E-05	9.7E+00		X						X							
trans-1,3-Dichloropropene	6.9E-05	1.4E-04	1.1E-03	2.3E-03	1.0E+01	2.3E-03	1.1E-03	1.6E+02	1.4E-04	6.9E-05	9.7E+00		X						X							
Ethane	na	na	na	na	na	na	na	na	na	na	na															
Ethylbenzene	5.9E-03	3.4E-01	1.0E-01	5.9E+00	8.0E+03	5.9E+00	1.0E-01	3.4E+05	3.4E-01	5.9E-03	2.0E+04		X						X							
Ethylene oxide	4.1E-05	4.1E-05	5.7E-04	5.7E-04	3.2E+00	5.7E-04	na	4.8E+01	4.1E-05	na	3.4E+00		X						X							
Ethyl ether	4.7E-01	4.7E-01	6.8E+00	6.8E+00	1.6E+04	6.8E+00	na	8.7E+05	4.7E-01	na	6.1E+04		X						X							
Ethylene dibromide (EDB)	1.8E-05	1.8E-05	2.7E-04	2.7E-04	5.0E-01	2.7E-04	na	6.5E+00	1.8E-05	na	4.3E-01		X						X							
Formaldehyde	6.0E-04	6.0E-04	8.4E-03	8.4E-03	4.8E+01	8.4E-03	na	7.2E+02	6.0E-04	na	5.1E+01		X						X							
n-Hexane	1.8E+00	1.8E+00	7.2E+01	7.2E+01	4.8E+03	7.2E+01	na	3.4E+05	1.8E+00	na	8.4E+03		X						X							
2-Hexanone	1.2E-02	1.2E-02	1.7E-01	1.7E-01	4.0E+02	1.7E-01	na	2.1E+04	1.2E-02	na	1.5E+03		X						X							
Isopropylbenzene (cumene)	7.9E-01	7.9E-01	1.5E+01	1.5E+01	8.0E+03	1.5E+01	na	3.0E+05	7.9E-01	na	1.6E+04		X						X							
4-Isopropyltoluene	na	na	na	na	na	na	na	na	na	na	na															
Methane	na	na	na	na	na	na	na	na	na	na	na															
Methyl ethyl ketone (2-butanone)	1.4E+00	1.4E+00	2.0E+01	2.0E+01	4.8E+04	2.0E+01	na	2.6E+06	1.4E+00	na	1.9E+05		X						X							
Methyl iodide	na	na	na	na	na	na	na	na	na	na	na															
Methyl isobutyl ketone (4-methyl-2-pentanone)	1.9E-01	1.9E-01	2.7E+00	2.7E+00	6.4E+03	2.7E+00	na	3.4E+05	1.9E-01	na	2.4E+04		X						X							
Methyl tert-butyl ether	7.2E-03	7.2E-03	1.0E-01	1.0E-01	5.6E+02	1.0E-01	na	8.2E+03	7.2E-03	na	5.7E+02		X						X							
Methylene chloride	1.5E-03	1.5E-03	2.1E-02	2.1E-02	9.4E+01	2.1E-02	4.3E-02	7.5E+03	1.5E-03	3.0E-03	5.2E+02		X						X							
2-Pentanone	na	na	na	na	na	na	na	na	na	na	na															
n-Propylbenzene	8.8E-01	8.8E-01	1.6E+01	1.6E+01	8.0E+03	1.6E+01	na	2.9E+05	8.8E-01	na	1.6E+04		X						X							
Styrene	1.2E-01	1.2E-01	2.2E+00	2.2E+00	1.6E+04	2.2E+00	na	5.8E+05	1.2E-01	na	3.1E+04		X						X							
1,1,1,2-Tetrachloroethane	6.3E-04	6.3E-04	9.8E-03	9.8E-03	3.8E+01	9.8E-03	na	4.9E+02	6.3E-04	na	3.2E+01		X						X							
1,1,2,2-Tetrachloroethane	3.7E-05	8.0E-05	5.6E-04	1.2E-03	5.0E+00	1.2E-03	5.6E-04	6.4E+01	8.0E-05	3.7E-05	4.2E+00		X						X							
Tetrachloroethylene	1.3E-03	2.8E-03	2.4E-02	5.0E-02	4.8E+02	5.0E-02	2.4E-02	5.6E+03	2.8E-03	1.3E-03	3.1E+02		X						X							
Toluene	2.3E-02	2.7E-01	3.7E-01	4.5E+00	6.4E+03	4.5E+00	3.7E-01	2.9E+05	2.7E-01	2.3E-02	1.7E+04		X						X							
1,2,3-Trichlorobenzene	1.1E-02	1.1E-02	2.0E-01	2.0E-01	6.4E+01	2.0E-01	na	2.3E+03	1.1E-02	na	1.2E+02		X						X							
1,1,1-Trichloroethane	8.4E-02	8.4E-02	1.5E+00	1.5E+00	1.6E+05	1.5E+00	7.4E+01	7.8E+06	8.4E-02	4.2E+00	4.4E+05		X						X							



**Table K-2  
Ecology Preliminary Groundwater Cleanup Levels  
American Linen Supply Co Dexter Ave Site**

Chemical (all concentrations are in ug/L)	A Most Stringent PCUL Including SW & VI GW #s 1-5	B Most Stringent PCUL Including VI, No SW GW #s 1,4,5	C Most Stringent PCUL Including SW, No VI GW #s 1-3,5	D Most Stringent PCUL Including No SW, No VI GW #s 1,5	GW-1 Protect Drinking Water PW	GW-2 Protect Surface Water SW-FW	GW-3 Protect Sediment LeachFW	GW-4 Screening Level Protect Indoor Air PW	GW-5 Natural Background	Basis - with Surface Water					Basis - w/o Surf Water				
										Drinking Water	Surface Water	Sediment	Indoor Air	Nat. Background	Drinking Water	Sediment	Indoor Air	Nat. Background	
<b>SVOCs - PAHs</b>										<b>SVOCs - PAHs</b>									
Naphthalene	8.9E+00	8.9E+00	1.6E+02	1.6E+02	1.6E+02	1.4E+03	1.6E+06	8.9E+00	na				X					X	
<b>Other SVOCs</b>																			
1,2-Dichlorobenzene	6.0E+02	6.0E+02	6.0E+02	6.0E+02	6.0E+02	7.0E+02	1.9E+07	2.5E+03	na	X					X				
1,3-Dichlorobenzene	2.0E+00	na	2.0E+00	na	na	2.0E+00	na	na	na		X								
1,4-Dichlorobenzene	4.9E+00	4.9E+00	6.0E+01	7.5E+01	7.5E+01	6.0E+01	3.9E+04	4.9E+00	na				X					X	
1,2,4-Trichlorobenzene	3.6E-02	1.5E+01	3.6E-02	1.5E+01	1.5E+01	3.6E-02	3.0E+03	3.8E+01	na		X				X				
<b>Volatile Organic Compounds</b>																			
Acetone	7.2E+03	7.2E+03	7.2E+03	7.2E+03	7.2E+03	na	9.9E+08	1.5E+07	na	X					X				
Acrolein	1.0E+00	2.9E+00	1.0E+00	4.0E+00	4.0E+00	1.0E+00	5.5E+05	2.9E+00	na		X								X
Acrylonitrile	1.9E-02	8.1E-02	1.9E-02	8.1E-02	8.1E-02	1.9E-02	6.5E+03	1.2E+01	na		X				X				
Benzaldehyde	1.1E+01	1.1E+01	1.1E+01	1.1E+01	1.1E+01	na	8.7E+05	na	na	X					X				
Benzene	4.4E-01	2.4E+00	4.4E-01	5.0E+00	5.0E+00	4.4E-01	4.5E+04	2.4E+00	na		X								X
Bromobenzene	6.4E+01	6.4E+01	6.4E+01	6.4E+01	6.4E+01	na	3.0E+06	6.3E+02	na	X					X				
Bromochloromethane	na	na	na	na	na	na	na	na	na										
Bromoethane	na	na	na	na	na	na	na	na	na										
Bromoform	4.6E+00	5.5E+01	4.6E+00	5.5E+01	5.5E+01	4.6E+00	2.3E+05	2.2E+02	na		X				X				
Bromomethane	1.1E+01	1.1E+01	1.1E+01	1.1E+01	1.1E+01	1.0E+02	1.4E+06	1.3E+01	na	X					X				
2-Butoxyethanol	8.0E+02	8.0E+02	8.0E+02	8.0E+02	8.0E+02	na	1.1E+08	na	na	X					X				
n-Butylbenzene	4.0E+02	4.0E+02	4.0E+02	4.0E+02	4.0E+02	na	4.2E+06	na	na	X					X				
sec-Butylbenzene	8.0E+02	8.0E+02	8.0E+02	8.0E+02	8.0E+02	na	9.2E+06	na	na	X					X				
tert-Butylbenzene	8.0E+02	8.0E+02	8.0E+02	8.0E+02	8.0E+02	na	1.2E+07	na	na	X					X				
Carbon disulfide	4.0E+02	4.0E+02	8.0E+02	8.0E+02	8.0E+02	na	8.0E+07	4.0E+02	na				X						X
Carbon tetrachloride	2.0E-01	5.6E-01	2.0E-01	5.0E+00	5.0E+00	2.0E-01	2.4E+04	5.6E-01	na		X								X
Chlorobenzene	1.0E+02	1.0E+02	1.0E+02	1.0E+02	1.0E+02	1.0E+02	7.8E+06	2.9E+02	na	X	X				X				
Chloroethane	1.5E+04	1.5E+04	na	na	na	na	na	1.5E+04	na				X						X
2-Chloroethyl vinyl ether	na	na	na	na	na	na	na	na	na										
Chloroform	1.2E+00	1.2E+00	1.4E+01	1.4E+01	1.4E+01	6.0E+01	8.5E+04	1.2E+00	na				X						X
Chloromethane	1.5E+02	1.5E+02	na	na	na	na	na	1.5E+02	na				X						X
3-Chloro-1-propene	2.1E+00	2.1E+00	2.1E+00	2.1E+00	2.1E+00	na	1.4E+05	na	na	X					X				
2-Chlorotoluene	1.6E+02	1.6E+02	1.6E+02	1.6E+02	1.6E+02	na	5.3E+06	na	na	X					X				
4-Chlorotoluene	na	na	na	na	na	na	na	na	na										
Dibromochloromethane	6.0E-01	5.2E+00	6.0E-01	5.2E+00	5.2E+00	6.0E-01	3.0E+04	na	na		X				X				
1,2-Dibromo-3-chloropropane	1.6E-01	1.6E-01	2.0E-01	2.0E-01	2.0E-01	na	2.4E+03	1.6E-01	na				X						X
Dibromomethane	8.0E+01	8.0E+01	8.0E+01	8.0E+01	8.0E+01	na	7.3E+06	8.6E+01	na	X					X				
Dichlorobromomethane	7.3E-01	1.8E+00	7.3E-01	7.1E+00	7.1E+00	7.3E-01	4.2E+04	1.8E+00	na		X								X
trans-1,4-Dichloro-2-butene	na	na	na	na	na	na	na	na	na										
Dichlorodifluoromethane	4.2E+00	4.2E+00	1.6E+03	1.6E+03	1.6E+03	na	1.6E+08	4.2E+00	na				X						X
1,1-Dichloroethane	7.7E+00	7.7E+00	7.7E+00	7.7E+00	7.7E+00	na	4.6E+05	1.1E+01	na	X					X				
1,2-Dichloroethane (EDC)	4.2E+00	4.2E+00	4.8E+00	4.8E+00	4.8E+00	8.9E+00	3.2E+04	4.2E+00	na				X						X
1,1-Dichloroethylene	7.0E+00	7.0E+00	7.0E+00	7.0E+00	7.0E+00	3.0E+02	3.6E+07	1.3E+02	na	X					X				
cis-1,2-Dichloroethylene	1.6E+01	1.6E+01	1.6E+01	1.6E+01	1.6E+01	na	1.7E+06	na	na	X					X				

**Table K-2  
Ecology Preliminary Groundwater Cleanup Levels  
American Linen Supply Co Dexter Ave Site**

Chemical (all concentrations are in ug/L)	A Most Stringent PCUL Including SW & VI GW #s 1-5	B Most Stringent PCUL Including VI, No SW GW #s 1,4,5	C Most Stringent PCUL Including SW, No VI GW #s 1-3,5	D Most Stringent PCUL Including No SW, No VI GW #s 1,5	GW-1 Protect Drinking Water PW	GW-2 Protect Surface Water SW-FW	GW-3 Protect Sediment LeachFW	GW-4 Screening Level Protect Indoor Air PW	GW-5 Natural Background	Basis - with Surface Water					Basis - w/o Surf Water			
										Drinking Water	Surface Water	Sediment	Indoor Air	Nat. Background	Drinking Water	Sediment	Indoor Air	Nat. Background
trans-1,2-Dichloroethylene	7.7E+01	7.7E+01	1.0E+02	1.0E+02	1.0E+02	1.0E+02	1.7E+07	7.7E+01	na				X				X	
1,2-Dichloroethylene (mixed isomers)	7.2E+01	7.2E+01	7.2E+01	7.2E+01	7.2E+01	na	7.7E+06	na	na	X					X			
1,2-Dichloropropane	7.1E-01	5.0E+00	7.1E-01	5.0E+00	5.0E+00	7.1E-01	7.4E+04	1.0E+01	na		X				X			
1,3-Dichloropropane	1.6E+02	1.6E+02	1.6E+02	1.6E+02	1.6E+02	na	1.4E+07	na	na	X					X			
2,2-Dichloropropane	na	na	na	na	na	na	na	na	na									
1,1-Dichloropropene	na	na	na	na	na	na	na	na	na									
cis-1,3-Dichloropropene	2.2E-01	4.4E-01	2.2E-01	4.4E-01	4.4E-01	2.2E-01	3.1E+04	na	na			X			X			
trans-1,3-Dichloropropene	2.2E-01	4.4E-01	2.2E-01	4.4E-01	4.4E-01	2.2E-01	3.1E+04	na	na			X			X			
Ethane	na	na	na	na	na	na	na	na	na									
Ethylbenzene	1.2E+01	7.0E+02	1.2E+01	7.0E+02	7.0E+02	1.2E+01	4.1E+07	2.8E+03	na			X			X			
Ethylene oxide	5.4E-02	5.4E-02	1.4E-01	1.4E-01	1.4E-01	na	1.2E+04	5.4E-02	na				X				X	
Ethyl ether	1.6E+03	1.6E+03	1.6E+03	1.6E+03	1.6E+03	na	2.0E+08	na	na	X					X			
Ethylene dibromide (EDB)	5.0E-02	5.0E-02	5.0E-02	5.0E-02	5.0E-02	na	1.2E+03	3.0E-01	na	X					X			
Formaldehyde	2.1E+00	2.1E+00	2.1E+00	2.1E+00	2.1E+00	na	1.8E+05	na	na	X					X			
n-Hexane	4.1E+00	4.1E+00	4.8E+02	4.8E+02	4.8E+02	na	2.3E+06	4.1E+00	na				X				X	
2-Hexanone	4.0E+01	4.0E+01	4.0E+01	4.0E+01	4.0E+01	na	4.9E+06	7.3E+03	na	X					X			
Isopropylbenzene (cumene)	8.0E+02	8.0E+02	8.0E+02	8.0E+02	8.0E+02	na	1.6E+07	9.1E+02	na	X					X			
4-Isopropyltoluene	na	na	na	na	na	na	na	na	na									
Methane	na	na	na	na	na	na	na	na	na									
Methyl ethyl ketone (2-butanone)	4.8E+03	4.8E+03	4.8E+03	4.8E+03	4.8E+03	na	6.4E+08	1.7E+06	na	X					X			
Methyl iodide	na	na	na	na	na	na	na	na	na									
Methyl isobutyl ketone (4-methyl-2-pentanone)	6.4E+02	6.4E+02	6.4E+02	6.4E+02	6.4E+02	na	8.0E+07	4.7E+05	na	X					X			
Methyl tert-butyl ether	2.4E+01	2.4E+01	2.4E+01	2.4E+01	2.4E+01	na	1.9E+06	8.0E+02	na	X					X			
Methylene chloride	5.0E+00	5.0E+00	5.0E+00	5.0E+00	5.0E+00	1.0E+01	1.7E+06	1.2E+03	na	X					X			
2-Pentanone	na	na	na	na	na	na	na	na	na									
n-Propylbenzene	8.0E+02	8.0E+02	8.0E+02	8.0E+02	8.0E+02	na	1.4E+07	2.3E+03	na	X					X			
Styrene	1.0E+02	1.0E+02	1.0E+02	1.0E+02	1.0E+02	na	2.6E+07	8.1E+03	na	X					X			
1,1,1,2-Tetrachloroethane	1.7E+00	1.7E+00	1.7E+00	1.7E+00	1.7E+00	na	8.5E+04	7.1E+00	na	X					X			
1,1,2,2-Tetrachloroethane	1.0E-01	2.2E-01	1.0E-01	2.2E-01	2.2E-01	1.0E-01	1.1E+04	6.2E+00	na		X				X			
Tetrachloroethylene	2.4E+00	5.0E+00	2.4E+00	5.0E+00	5.0E+00	2.4E+00	5.6E+05	2.4E+01	na			X			X			
Toluene	5.3E+01	6.4E+02	5.3E+01	6.4E+02	6.4E+02	5.3E+01	4.1E+07	1.5E+04	na			X			X			
1,2,3-Trichlorobenzene	6.4E+00	6.4E+00	6.4E+00	6.4E+00	6.4E+00	na	7.1E+04	na	na	X					X			
1,1,1-Trichloroethane	2.0E+02	2.0E+02	2.0E+02	2.0E+02	2.0E+02	1.0E+04	1.0E+09	5.4E+03	na	X					X			
1,1,2-Trichloroethane	3.5E-01	3.0E+00	3.5E-01	3.0E+00	3.0E+00	3.5E-01	4.1E+04	4.6E+00	na			X			X			
Trichloroethylene	3.0E-01	1.4E+00	3.0E-01	4.0E+00	4.0E+00	3.0E-01	4.6E+04	1.4E+00	na			X					X	
Trichlorofluoroethane	na	na	na	na	na	na	na	na	na									
Trichlorofluoromethane	1.2E+02	1.2E+02	2.4E+03	2.4E+03	2.4E+03	na	2.4E+08	1.2E+02	na				X				X	
1,2,3-Trichloropropane	3.8E-04	3.8E-04	3.8E-04	3.8E-04	3.8E-04	na	6.4E+01	na	na	X					X			
Trichlorotrifluoroethane	1.7E+02	1.7E+02	2.4E+05	2.4E+05	2.4E+05	na	1.3E+10	1.7E+02	na				X				X	
1,2,3-Trimethylbenzene	8.0E+01	8.0E+01	8.0E+01	8.0E+01	8.0E+01	na	1.8E+06	4.1E+02	na	X					X			
1,2,4-Trimethylbenzene	8.0E+01	8.0E+01	8.0E+01	8.0E+01	8.0E+01	na	1.8E+06	2.4E+02	na	X					X			
1,3,5-Trimethylbenzene	8.0E+01	8.0E+01	8.0E+01	8.0E+01	8.0E+01	na	1.8E+06	1.7E+02	na	X					X			

**Table K-2  
Ecology Preliminary Groundwater Cleanup Levels  
American Linen Supply Co Dexter Ave Site**

Chemical (all concentrations are in ug/L)	A Most Stringent PCUL Including SW & VI GW #s 1-5	B Most Stringent PCUL Including VI, No SW GW #s 1,4,5	C Most Stringent PCUL Including SW, No VI GW #s 1-3,5	D Most Stringent PCUL Including No SW, No VI GW #s 1,5	GW-1 Protect Drinking Water PW	GW-2 Protect Surface Water SW-FW	GW-3 Protect Sediment LeachFW	GW-4 Screening Level Protect Indoor Air PW	GW-5 Natural Background	Basis - with Surface Water					Basis - w/o Surf Water			
										Drinking Water	Surface Water	Sediment	Indoor Air	Nat. Background	Drinking Water	Sediment	Indoor Air	Nat. Background
Vinyl acetate	7.7E+03	7.7E+03	8.0E+03	8.0E+03	8.0E+03	na	1.1E+09	7.7E+03	na				X				X	
Vinyl chloride	2.0E-02	2.9E-01	2.0E-02	2.9E-01	2.9E-01	2.0E-02	2.2E+03	3.4E-01	na		X				X			
Total xylenes	5.7E+01	3.2E+02	5.7E+01	1.6E+03	1.6E+03	5.7E+01	7.6E+07	3.2E+02	na		X						X	
<b>Petroleum Hydrocarbons</b>																		
Gasoline range hydrocarbons, fresh	8.0E+02	8.0E+02	8.0E+02	8.0E+02	8.0E+02	8.0E+02	na	na	na	X	X				X			
Gasoline range hydrocarbons, weathered	1.0E+03	1.0E+03	1.0E+03	1.0E+03	1.0E+03	1.0E+03	na	na	na	X	X				X			
Diesel range hydrocarbons, fresh	1.5E+02	5.0E+02	1.5E+02	5.0E+02	5.0E+02	1.5E+02	na	na	na		X				X			
Diesel range hydrocarbons, weathered	5.0E+02	5.0E+02	5.0E+02	5.0E+02	5.0E+02	5.0E+02	na	na	na	X	X				X			
Oil range hydrocarbons	5.0E+02	5.0E+02	5.0E+02	5.0E+02	5.0E+02	5.0E+02	na	na	na	X	X				X			
Total diesel & oil range hydrocarbons	5.0E+02	5.0E+02	5.0E+02	5.0E+02	5.0E+02	5.0E+02	na	na	na	X	X				X			

**Table K-3  
Ecology Soil Vapor and Air PCULs  
American Linen Supply Co Dexter Ave Site**

Chemical (All concentrations in ug/m <sup>3</sup> )	AR-1 Air PCUL Air-Det	SG-1 Sub-Slab Soil Gas Screening Level Protect Indoor Air
<b>SVOCs - PAHs</b>		
Naphthalene	7.4E-02	2.5E+00
<b>Other SVOCs</b>		
1,2-Dichlorobenzene	9.1E+01	3.0E+03
1,3-Dichlorobenzene	na	na
1,4-Dichlorobenzene	2.3E-01	7.6E+00
1,4-Dioxane	5.0E-01	na
1,2,4-Trichlorobenzene	9.1E-01	3.0E+01
<b>Volatile Organic Compounds</b>		
Acetone	1.4E+04	4.7E+05
Acrolein	9.1E-03	3.0E-01
Acrylonitrile	3.7E-02	1.2E+00
Benzaldehyde	na	na
Benzene	3.2E-01	1.1E+01
Bromobenzene	2.7E+01	9.1E+02
Bromochloromethane	1.8E+01	na
Bromoethane	na	na
Bromoform	2.3E+00	7.6E+01
Bromomethane	2.3E+00	7.6E+01
2-Butoxyethanol	7.3E+02	na
n-Butylbenzene	na	na
sec-Butylbenzene	na	na
tert-Butylbenzene	na	na
Carbon disulfide	3.2E+02	1.1E+04
Carbon tetrachloride	4.2E-01	1.4E+01
Chlorobenzene	2.3E+01	7.6E+02
Chloroethane	4.6E+03	1.5E+05
2-Chloroethyl vinyl ether	na	na
Chloroform	1.1E-01	3.6E+00
Chloromethane	4.1E+01	1.4E+03
3-Chloro-1-propene	4.2E-01	na
2-Chlorotoluene	na	na
4-Chlorotoluene	na	na
Dibromochloromethane	na	na
1,2-Dibromo-3-chloropropane	4.2E-04	1.4E-02
Dibromomethane	1.8E+00	6.1E+01
Dichlorobromomethane	6.7E-02	2.2E+00
trans-1,4-Dichloro-2-butene	6.0E-04	na
Dichlorodifluoromethane	4.6E+01	1.5E+03
1,1-Dichloroethane	1.6E+00	5.2E+01
1,2-Dichloroethane (EDC)	9.6E-02	3.2E+00
1,1-Dichloroethylene	9.1E+01	3.0E+03

**Table K-3  
Ecology Soil Vapor and Air PCULs  
American Linen Supply Co Dexter Ave Site**

<b>Chemical</b> (All concentrations in ug/m <sup>3</sup> )	<b>AR-1 Air PCUL Air-Det</b>	<b>SG-1 Sub-Slab Soil Gas Screening Level Protect Indoor Air</b>
cis-1,2-Dichloroethylene	na	na
trans-1,2-Dichloroethylene	1.8E+01	6.1E+02
1,2-Dichloroethylene (mixed isomers)	na	na
1,2-Dichloropropane	6.8E-01	2.3E+01
1,3-Dichloropropane	na	na
2,2-Dichloropropane	na	na
1,1-Dichloropropene	na	na
cis-1,3-Dichloropropene	na	na
trans-1,3-Dichloropropene	na	na
Ethane	na	na
Ethylbenzene	4.6E+02	1.5E+04
Ethylene oxide	2.2E-04	7.3E-03
Ethyl ether	na	na
Ethylene dibromide (EDB)	4.2E-03	1.4E-01
Formaldehyde	1.9E-01	na
n-Hexane	3.2E+02	1.1E+04
2-Hexanone	1.4E+01	4.6E+02
Isopropylbenzene (cumene)	1.8E+02	6.1E+03
4-Isopropyltoluene	na	na
Methane	na	na
Methyl ethyl ketone (2-butanone)	2.3E+03	7.6E+04
Methyl iodide	na	na
Methyl isobutyl ketone (4-methyl-2-pentanone)	1.4E+03	4.6E+04
Methyl tert-butyl ether	9.6E+00	3.2E+02
Methylene chloride	6.6E+01	2.2E+03
2-Pentanone	na	na
n-Propylbenzene	4.6E+02	1.5E+04
Styrene	4.6E+02	1.5E+04
1,1,1,2-Tetrachloroethane	3.4E-01	1.1E+01
1,1,2,2-Tetrachloroethane	4.3E-02	1.4E+00
Tetrachloroethylene	9.6E+00	3.2E+02
Toluene	2.3E+03	7.6E+04
1,2,3-Trichlorobenzene	na	na
1,1,1-Trichloroethane	2.3E+03	7.6E+04
1,1,2-Trichloroethane	9.1E-02	3.0E+00
Trichloroethylene	3.3E-01	1.1E+01
Trichlorofluoroethane	na	na
Trichlorofluoromethane	3.2E+02	1.1E+04
1,2,3-Trichloropropane	1.4E-01	na
Trichlorotrifluoroethane	2.3E+03	7.6E+04
1,2,3-Trimethylbenzene	2.7E+01	9.1E+02
1,2,4-Trimethylbenzene	2.7E+01	9.1E+02

**Table K-3  
Ecology Soil Vapor and Air PCULs  
American Linen Supply Co Dexter Ave Site**

Chemical (All concentrations in ug/m <sup>3</sup> )	AR-1 Air PCUL Air-Det	SG-1 Sub-Slab Soil Gas Screening Level Protect Indoor Air
1,3,5-Trimethylbenzene	2.7E+01	9.1E+02
Vinyl acetate	9.1E+01	3.0E+03
Vinyl chloride	2.8E-01	9.4E+00
Total xylenes	4.6E+01	1.5E+03
<b><i>Petroleum Hydrocarbons</i></b>		
Gasoline range hydrocarbons, fresh	1.4E+02	4.7E+03
Gasoline range hydrocarbons, weathered	1.4E+02	4.7E+03
Diesel range hydrocarbons, fresh	1.4E+02	na
Diesel range hydrocarbons, weathered	1.4E+02	na
Oil range hydrocarbons	na	na
Total diesel & oil range hydrocarbons	na	na

**Table K-4  
Proposed Soil Cleanup Levels  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North, Seattle, Washington**

Chemical Name	CAS #	Undiluted Analysis PQLs (mg/kg)		PQL Selected for PCUL Adjustment (mg/kg)	MTCA Method A Cleanup Levels (mg/kg)	MTCA Method B Cleanup Levels				Selected Proposed Cleanup Levels (mg/kg)				Individual Vadose Zone Concentration at		HQ at the Proposed Cleanup Level	Risk at the Proposed Cleanup Level	
						Direct Contact		Protective of Groundwater										
						Pre IA	IA and RI	Noncancer (mg/kg)	Cancer (mg/kg)	Vadose Zone (mg/kg)	Saturated Zone (mg/kg)	Vadose Zone	Cleanup Level Basis	Saturated Zone	Cleanup Level Basis	HQ = 1	Risk = 1 x 10 <sup>-5</sup>	
<b>Proposed COCs</b>																		
1,1-dichloroethene	75-35-4	0.05	0.001 - 0.00728	0.004	-	4,000	-	0.046	0.0025	0.046	Protection of GW	0.0040	Protection of GW↑PQL	4,000	not a carcinogen	1.2E-05	-	
cis-1,2-dichloroethene (cDCE)	156-59-2	0.0008 - 0.05	0.001 - 0.00308	-	-	160	-	0.078	0.0052	0.078	Protection of GW	0.0052	Protection of GW	160	not a carcinogen	4.9E-04	-	
tetrachloroethene (PCE)	127-18-4	0.0008 - 0.025	0.00104 - 0.00728	0.005	0.05	480	480	0.050	0.0028	0.050	Protection of GW	0.0050	Protection of GW↑PQL	480	4,800	1.0E-04	1.0E-10	
trans-1,2-dichloroethene (tDCE)	156-60-5	0.0007 - 0.05	0.001 - 0.00617	-	-	1,600	-	0.52	0.032	0.52	Protection of GW	0.032	Protection of GW	1,600	not a carcinogen	3.3E-04	-	
trichloroethene (TCE)	79-01-6	0.0008 - 0.03	0.001 - 0.00291	0.002	0.03	40	12	0.025	0.0015	0.025	Protection of GW	0.0020	Protection of GW↑PQL	40	120	6.3E-04	2.1E-09	
vinyl chloride (VC)	75-01-4	0.0007 - 0.05	0.0014 - 0.00728	0.004	-	240	0.67	0.0017	0.000089	0.0040	Protection of GW↑PQL	0.0040	Protection of GW↑PQL	240	6.7	1.7E-05	6.0E-09	
<b>Retained COPC</b>																		
benzene	71-43-2	0.0011 - 0.05	0.00105 - 0.00169	0.002	0.03	320	18	0.027	0.0017	0.0270	Protection of GW	0.002	Protection of GW↑PQL	320	180	8.4E-05	1.5E-09	
															Totals		1.7E-03	9.7E-09
<b>NOTES:</b>																		
a. CAS # = Chemical Abstracts Service Registry Number. b. Screening levels for the chlorinated VOCs either presented in or using the methods outlined in Ecology's cleanup level/screening level technical memoranda dated January 28, 2016, and December 12, 2017. c. Cleanup levels from February 2021 Ecology Cleanup Levels and Risk Calculation update: d. MTCA Method A = unrestricted land use (MTCA Table 740-1). e. Method B direct contact cleanup levels based on MTCA Equations 740-1 (noncancer) and 740-2 (cancer).									f. Method B cleanup levels protective of groundwater for residential uses based on MTCA Equation 747-1 (vadose zone at 13 degrees C). g. Cleanup level equal to the lowest available cleanup level, adjusted upward (denoted by ↑), if necessary, to the PQL. h. HQ = hazard quotient. i. PQL = practical quantitation limit. j. - = not available or not applicable. k. GW = groundwater; SW = surface water.									

**Table K-5  
Proposed Groundwater Cleanup Levels  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North, Seattle, Washington**

Chemical Name	CAS #	Undiluted Analysis PQLs		Groundwater Concentration (µg/L)																
		Pre IA	IA and RI		MTCA Cleanup Levels			MCL		Individual Concentration at		Preliminary Cleanup Level					Proposed Cleanup Level			
			Low	High	Method A	Method B		Fed	WA	HQ = 1	Risk = 1 x 10 <sup>-5</sup>	Level	Basis	Target Organs for Additive HQ Check		Total HQ at PCUL		Total Risk at the PCUL	Level	Basis
			0.1	0.5		Noncancer	Cancer							Oral Exposure	Inhalation Exposure	Immune				
<b>Proposed COCs</b>																				
1,1-dichloroethene (1,1-DCE)	75-35-4	1	0.1	0.5	–	400	–	7	7	400	not a carcinogen	7	MCL	Liver	Liver	0.0175	–	–	7	MCL
cis-1,2-dichloroethene (cDCE)	156-59-2	1	0.1	0.5	–	16	–	70	70	16	not a carcinogen	16	MCL ↓ HQ = 1	Kidney	–	–	–	–	16	MCL ↓ HQ = 1
tetrachloroethene (PCE)	127-18-4	1	0.1	0.5	5	48	21	5	5	48	210	5	MCL	Nervous, Ocular	Nervous, Ocular	–	–	2.4E-07	5	MCL
trans-1,2-dichloroethene (tDCE)	156-60-5	1	0.2	0.5	–	160	–	100	100	160	not a carcinogen	100	MCL	Immune	–	–	0.625	–	100	MCL
trichloroethene (TCE)	79-01-6	1	0.04	0.5	5	4	0.54	5	5	4	5.4	4	MCL ↓ HQ = 1	Developmental/Immune	Developmental/Immune	–	1	7.4E-06	4	MCL ↓ HQ = 1
vinyl chloride (VC)	75-01-4	0.2	0.1	0.5	0.2	24	0.029	2	2	24	0.29	0.29	Risk = 1x10 <sup>-5</sup>	Liver	Liver	0.012083333	–	1.0E-05	0.29	Risk = 1x10 <sup>-5</sup>
<b>Retained COPC</b>																				
benzene	71-43-2	1	0.04	0.5	5	32	0.8	5	5	32	8	5	MCL	Devel./Blood/Immune	Devel./Blood/Immune	0.15625	0.15625	6.3E-06	5	MCL
Totals at Proposed Cleanup Levels																0.185833333	1.78125	2.39E-05		
<p><b>NOTES:</b></p> <p>a. CAS # = Chemical Abstracts Service Registry Number.</p> <p>b. Screening levels for the chlorinated VOCs either presented in or using the methods outlined in Ecology's cleanup level/screening level technical memoranda dated January 28, 2016, and December 12, 2017.</p> <p>c. Cleanup levels from February 2021 Ecology Cleanup Levels and Risk Calculation update.</p> <p>d. MTCA Method A = unrestricted land use (MTCA Table 720-1).</p> <p>e. Method B groundwater cleanup levels for drinking water beneficial use based on MTCA Equations 720-1 (noncancer) and 720-2 (cancer).</p> <p>f. MCL = drinking water maximum contaminant level (Federal = 40 CFR 141; Washington State = 246-290 WAC).</p> <p>g. PQL = practical quantitation limit.</p> <p>h. HQ = hazard quotient.</p> <p>i. – = not available or not applicable.</p> <p>j. ↓HQ = cleanup level lowered to the HQ value shown.</p> <p>k. Note, proposed cleanup levels not adjusted for additive HQ or risk at this time; cleanup levels will be adjusted on an area-specific basis in the future to meet an additive HQ of 1 or less and a total risk of no greater than 1 x 10<sup>-5</sup>.</p>																				

**Table K-6**  
**Soil Vapor Screening Levels**  
**American Linen Supply Co Dexter Ave Site**  
**700 Dexter Avenue North, Seattle, Washington**

Chemical Name	CAS #	Historical Lab PQLs (µg/m³)	Current Lab PQLs (µg/m³)	Method B Groundwater Screening Level for Soil Vapor (µg/L)	Method B Sub-Slab Soil Vapor Screening Level (µg/m³)	Method B Indoor Air Cleanup Level (µg/m³)	Selected Screening Level (µg/m³)	Screening Level Basis
<b>Proposed COCs</b>								
1,1-dichloroethene	75-35-4	–	0.793 - 1.59	130	3,000	91	3,000	Sub-slab
cis-1,2-dichloroethene (cDCE)	156-59-2	0.079 - 0.12	0.793 - 1.59	–	–	–	–	–
tetrachloroethene (PCE)	127-18-4	0.14 - 0.21	1.36 - 2.72	24	320	9.6	320	Sub-slab
trans-1,2-dichloroethene (tDCE)	156-60-5	0.58 - 0.61	0.793 - 1.59	77	610	18	610	Sub-slab
trichloroethene (TCE)	79-01-6	0.11 - 0.17	1.07 - 2.14	1.4	11	0.33	11	Sub-slab
vinyl chloride	75-01-4	–	0.511 - 1.02	0.34	9.5	0.28	9.5	Sub-slab
<b>Retained COPC</b>								
benzene	71-43-2	1.28	0.639	2.4	11	0.32	11	Sub-slab
<p><u>NOTES:</u></p> <p>a. CAS # = Chemical Abstracts Service Registry Number.</p> <p>b. Screening levels for the chlorinated VOCs either presented in or using the methods outlined in Ecology's draft technical memorandum dated January 28, 2016, re: preliminary cleanup levels and screening levels for American Linen Supply.</p> <p>c. Indoor air cleanup levels, soil vapor and sub-slab soil vapor screening levels from February 2021 Ecology Cleanup Levels and Risk Calculation update:</p> <p>d. Method B cleanup levels based on MTCA Equations 740-1 (noncancer) and 740-2 (cancer).</p> <p>e. Sub-slab screening level chosen as the screening level, if available; otherwise, the indoor air cleanup level with a 10x vapor attenuation factor used.</p> <p>f. PQL = practical quantitation limits</p> <p>g. – = not available.</p>								