

Attachment 2

State Standard Summaries

Questions 1-1 through 1-9

**2006 Survey of State Experiences with Petroleum and Hazardous Substance Releases at
LUST Sites, Heating Oil Tanks, and Out of Service Tanks**

1-1a&b. Does your state have action levels, cleanup levels, or drinking water standards for MtBE?

State	Yes	No	Don't Know	Groundwater Action Level(s) (ppb)	Groundwater Cleanup Level(s) (ppb)	Soil Action Level(s) (ppm)	Soil Cleanup Level(s) (ppm)	Primary (health based)	Secondary (taste & odor)	State (or other) Advisory	EPA Advisory (20-40 ppb)	Comments
AK		X										
AL	X			20	20	0.008	0.008					The cleanup levels are all risk-based determined on a site by site basis. The cleanup level entered is the initial screening level.
AR		X										
AZ	X			20		320	320					Arizona does not have an enforceable drinking water standard. The UST program has limited authority in the UST Corrective Action Rules that allows determination of a risk-based level of contaminants that do not have a drinking water standard.
CA	X							13	5			
CO	X			20	20				20			Petroleum storage tanks and cleanups from these tanks are regulated by the Dept. of Labor and Employment, Division of Oil and Public Safety (OPS). Hazardous waste cleanups are regulated by the Dept. of Public Health and Environment (CDPHE).
CT	X							70				Soil cleanup levels: > direct exposure criteria, Residential = 500 ppm,

IA		X											Sites must sample for MtBE during initial investigations/assessment. If MtBE is found above the detection level (15 ppb) continued sampling for MtBE is required.
ID			X										Guidance is due to be released in late 2007-early 2008. Cleanup levels are currently site-specific and risk based.
IL	X			70	70	0.32	0.32	70	20	20	20		Any detection of a contaminant requires a response. Detection limits must meet the residential cleanup objective. Cleanup levels listed are for residential closure. The commercial/industrial levels are 870 (gv) and 3.9 (s).
IN	X			40	40	0.18	0.18				20		When a release is confirmed or when gw is encountered at a UST system removal, KY requires MtBE analysis of water samples from drinking water sources (dom.-use wells, springs, cisterns) located within a certain distance from a UST system.
KS	X			20	20	2400	2400						Cleanup levels are site-specific and based on a tiered risk-based approach and depend on source length, GW classification,
KY	X			50									
LA	X			20		0.07							

KY		X									There are no cleanup levels for ethanol in KY UST regulations. However, the Division of Water requires analyses for many more compounds for public water systems; DOW may have some standards that are not addressed by the KY UST Branch.
LA		X									Value is not listed in RECAP but would be developed using RECAP algorithms.
MA	X		1000		100						GW1=1.0mg/l GW2=10mg/l S1=100mg/kg S2-1000mg/kg
MD		X									
ME		X									
MI	X		1.90		380		1.90				cleanup levels are based on land use. units are in pbm. See Op Memo No. 1 on web at www.michigan.gov/deqrd
MN		X									
MO	X		2260		3.39						Same as above.
MS		X									
MT		X									
NC	X										Although no specific standards have been established for this chemical, a violation occurs if the constituent is even detected. Therefore, action levels, cleanup levels and drinking water standards will become the detection limit.
ND		X									
NE		X									
NH		X									
NJ		X									1-3b. Compounds (non-carcinogens) that don't have specific or interim specific Ground Water Quality Standards default to 100 ppb.
NM		X									
NV		X									
NY	X						50				Action levels are any amount of

		Know	Action Level(s) (ppb)	Cleanup Level(s) (ppb)	Action Level(s) (ppm)	Cleanup Level(s) (ppm)	(health based)	(taste & odor)	(or other) Advisory	Advisory (20-40 ppb)
AK		X								
AL		X								
AR		X								
AZ		X								
CA		X								
CO		X								
CT	X						100			CT only has a drinking water standard expressed as a combined total concentration of TBA, MTBE, ETBE, TAME, DIPE.
DE	X		750		3.60					Action levels are draft numbers. Cleanup numbers are site-specific.
FL		X								There is no cleanup target level in Florida for TAME
GA		X								
HI		X								These may be in the new EALs, but my office has not approved their use. Currently in process of adopting.
IA		X								
ID		X								
IL		X								
IN		X								Same answer as for TBA
KS		X								
KY		X								There are no cleanup levels for TAME in KY UST regulations. However, the Division of Water requires analyses for many more compounds for public water systems; DOW may have some standards that are not addressed by the KY UST Branch.
LA		X								Value is not listed in RECAP but would be developed using RECAP algorithms.

AZ		X																		
CA		X																		
CO		X																		
CT	X								100											CT only has a drinking water standard expressed as a combined total concentration of TBA, MTBE, ETBE, TAME, DIPE.
DE		X																		
FL		X																		
GA		X																		
HI		X																		
IA		X																		
ID		X																		
IL		X																		
IN		X																		Same answer as for TBA
KS		X																		
KY		X																		There are no cleanup levels for EtBE in KY UST regulations. However, the Division of Water requires analyses for many more compounds for public water systems; DOW may have some standards that are not addressed by the KY UST Branch.
LA		X																		Value is not listed in RECAP but would be developed using RECAP algorithms.
MA	X																			Cleanup levels for GW & Soil due to be released 2/07

WY	X			190	190						
Totals:	10	40	0								

1-6a&b. Does your state have action levels, cleanup levels, or drinking water standards for diisopropyl ether (DIPE)?

State	Yes	No	Don't Know	Groundwater Action Level (ppb)	Groundwater Cleanup Level(s) (ppb)	Soil Action Level(s) (ppm)	Soil Cleanup Level(s) (ppm)	Primary (health based)	Secondary (taste & odor)	State (or other) Advisory	EPA Advisory (20-40 ppb)	Comments
AK		X										
AL		X										
AR		X										
AZ		X										
CA		X										
CC		X										
CT	X							100				CT only has a drinking water standard expressed as a combined total concentration of TBA, MTBE, ETBE, TAME, DIPE. If DIPE's concentration alone, or the sum of all oxygenates in the drinking water sample equals 100 ppb, additional action is recommend
DE		X										
FL		X										
GA		X										
HI		X										
IA		X										
ID		X										
IL		X										
IN		X										Same answer as for TBA

1- 7 a & b. Please indicate below whether your state enforces the federal MCL for ethylene dibromide (EDB) (0.05 ppb) or has separate action levels, cleanup levels, or drinking water standards.

State	Yes	No	Don't Know	Groundwater Action Level(s) (ppb)	Groundwater Cleanup Level(s) (ppb)	Soil Action Level(s) (ppm)	Soil Cleanup Level(s) (ppm)	Primary (health based)	Secondary (taste & odor)	State (or other) Advisory	EPA Advisory (20-40 ppb)	Comments
AK		X										We will be adopting the federal MCL in the near future.
AL	X							0.05				The state drinking water program has an MCL for EDB of 0.00005 mg/l. This value is used as our reporting limit and initial screening level. A site specific value could be developed through a risk assessment to determine actual cleanup values.
AR	X							0.05				MCL is used as a screening level for human health exposure. Clean-up level is usually not as stringent as MCL.
AZ	X							0.05				Yes
CA	X											
CO	X			0.05	0.05			0.05				Colorado standard = 0.05ppb
CT	X							0.05				The current detection limit is 0.02 ppb. Detections between 0.02 and 0.05 ppb should receive follow-up monitoring and can be referred to DPH for site-specific bottled water determination.
DE	X			0.05		0.01		0.05				Cleanup levels are site-specific. DW standard is enforceable for public wells.
FL		X			0.02		0.02					We have our own lower cleanup target level (of .02) than the federal MCL. We do not routinely analyze for EDB in soil
GA	X											
HI			X									The newly revised 2006 EALs do have action levels for EDB and I think they also have action levels for the previously mentioned contaminants like TAME. So

											<p>further assessment and/or remediation.</p> <p>Currently evaluating data from EPA EDB sampling survey.</p> <p>Action Level - Soil (ppm): 0.000002 Drinking Water Standards - Primary: 0.05 Cleanup levels based on assigned risk of site: High - (0.000002 ppm/0.0004 ppb) Intermediate - (0.000002 ppm/50 ppb) Low - (0</p>
MT	X		0.004	0.004			0.004				
NC	X		0.0004		0.000002		0.05				
ND	X						0.05				
NE	X										<p>EDB with the federal MCL is included as a numerical standard in our Ground Water Standards. However, it is not included as a chemical of concern for petroleum, is not included in our RBCA guidelines, and is not normally monitored at LUST sites.</p>
NH	X			0.05		0.10	0.05				
NJ	X			0.03			0.05				
NM	X		0.10	0.10			0.05				<p>1-7 EDB action levels in soil are risk based and therefore variable</p>
NV	X		0.05	0.05			0.05				<p>Federal MCL</p>
NY	X			0.0006			50.00				<p>The action level for groundwater and soil is any amount of contamination. The cleanup level for soil is site specific. The drinking water standard for EDB is regulated as an Unspecified Organic Contaminant (UOC).</p>
OH		X									
OK		X									
OR		X		0.00064		0.0074					<p>Cleanup levels are from the most conservative RBDM pathway</p>
PA	X										
RI	X		0.025	0.05		0.0005	0.05				<p>1-7 Standards are for GA groundwater areas Reporting limit of analysis: normally conducted is higher than standards</p>

State	Yes	No	Don't Know	Groundwater Action Level(s) (ppb)	Groundwater Cleanup Level(s) (ppb)	Soil Action Level(s) (ppm)	Soil Cleanup Level(s) (ppm)	Primary (health based)	Secondary (taste & odor)	State (or other) Advisory	EPA Advisory (20-40 ppb)	Comments
AK	X				5		0.01	5				This is the most restrictive of multiple soil cleanup levels (ingestion, inhalation, migration to groundwater) and reflects the migration to groundwater pathway.
AL	X			5	5			5				Site-specific LUST cleanup levels would be developed using a risk-based process.
AR	X							5				MCL is used as a human health screening level. Cleanup level is usually not as stringent as MCL.
AZ	X					2.50	2.50	5				Yes
CA			X									
CO	X			0.38	0.38			0.38				
CT	X				1			1				
DE	X			9.40		0.40		5				Cleanup levels are site-specific. DW standard is enforceable for public wells.
FL		X			3		0.01					Our state has a lower cleanup target level than the federal MCL
GA	X											
HI			X									
IA		X										
ID	X			5		0.008		5				
IL	X											
IN	X			5	5	0.024	0.024	5				IDEM also has default closure levels for commercial/industrial land use of 31 (gw) and 0.15 (s)
KS	X											
KY		X										There are no cleanup levels for this contaminant in KY UST regulations. However, the Division of Water requires analyses for many more compounds for public water systems; DOW may have

											some standards that are not addressed by the KY UST Branch.
LA	X										Federal MCL used for GW1 sites. GW-2 and GW3 sites would have standards developed in accordance with RECAP
MA	X		5	5	0.10	10	5				AL Soil = 0.1mg/kg CL S1 = 10 mg/kg CL S2 = 90.0mg.kg
MD	X										
ME		X	2	4				4			
MI	X		5	5	15000	15000	5				Units are pbb. See Op Memo No. 1 on web at www.michigan.gov/deqrrd
MN	X							4			
MO		X						5			
MS	X										
MT	X		4	4				4			Evaluating data from state samplings efforts at historic petroleum release sites.
NC	X		0.38		0.0018			5			Action Level - Groundwater (ppb): 0.38 Cleanup levels based on assigned risk of site: High - (0.00180 ppm/0.38 ppb) Intermediate - (0.00180 ppm/380 ppb) Low - (7 or 63 ppm/380 ppb) {(soil - ppm)(GW - ppb)}
ND	X							5			
NE	X										1,2 DCA with the federal MCL is included as a numerical standard in our Ground Water Standards. However, it is not included as a chemical of concern for petroleum, is not included in our RBCA guidelines, and is not normally monitored at LUST sites.
NH	X			5		0.08	5				
NJ		X		2		1	2				
NM	X		10	10				5			
NV	X		5	5				5			Federal MCL
NY	X			0.60		0.10	5				The action levels are any amount of contamination in the groundwater and/or

1-9. Please indicate below whether your state enforces the federal MCL for lead (15 ppb) or has separate action levels, cleanup levels, or drinking water standards.

State	Yes	No	Don't Know	Groundwater Action Level(s) (ppb)	Groundwater Cleanup Level(s) (ppb)	Soil Action Level(s) (ppm)	Soil Cleanup Level(s) (ppm)	Primary (health based)	Secondary (taste & odor)	State (or other) Advisory	EPA Advisory (20-40 ppb)	Comments
AK	X				15		400	15				
AL	X				15	4.43	4.43	15				Lead cleanup levels are risk-based. Each site may have a different cleanup level. The levels quoted are the initial screening levels.
AR		X										
AZ	X					400	400	50				Yes
CA			X									
CO	X			50	50			50				
CT	X				15			15				Soil cleanup levels: Residential direct exposure = 500 ppm, Industrial/commercial = 1000 ppm, GA pollutant mobility = 0.015 ppm, GB pollutant mobility = 0.15 ppm
DE	X			15	15	400	400	15				
FL		X			15							We have our own cleanup target level for lead, which happens to be the same as the federal MCL. The level for soil would be site-specific based on SPLP or TCLP
GA	X											
HI	X			5.60	5.60	400	400					Our 400 ppm level for soil is based on direct

											exposure concerns, and the relatively high levels of lead in our geologically young volcanic soils.
IA		X									
ID	X		15		50		15				
IL		X	7.50	7.50	0.0075	0.0075	7.50	100	7.50		
IN	X		15	15	81	81	15				The default closure levels for commercial/industrial are 42 (gw) and 230 (s)
KS	X										
KY	X			15							UST regulations use a cleanup level of 0.015 mg/L for lead in groundwater.
LA	X										Federal MCL's used for GW1 sites. GW2 and GW3 sites would have standards developed using RECAP
MA	X		20	15	300	300	15				AL GW1 =.02mg/l AL GW2 =.01mg/l AL Soil = 300mg/kg CL soil 300 ppm
MD	X										
ME	X										
MI			4		400		4				Criteria for lead are derived using a biologically based model & is linked to residential soil direct contact contact criterion. State action level max is 15ppb. Units are pbb. See Op Memo No. 1 on web at www.michigan.gov/deqrrd
MN	X				300						

MO	X		15		260		15			Same as above.
MS	X									
MT	X		0.10	15			15			
NC	X		15		270		15			Cleanup levels based on assigned risk of site. High - (270 ppm/15 ppb) Intermediate - (270 ppm/15000 ppb) Low - (400 ppm/15000 ppb) {(soil - ppm)(GW - ppb)}
ND	X						15			
NE	X									Lead with the federal MCL is included as a numerical standard in our Ground Water Standards. However, it is not included as a chemical of concern for petroleum, is not included in our RBCA guidelines, and is not normally monitored at LUST sites.
NH	X			15		400	15			
NJ	X		15	5						15 ppb is an action level (not a MCL) under the Safe Drinking Water Act and takes into account that some plumbing and water distribution systems have lead components. 5 ppb is the Ground Water Quality Standard.
NM	X		50	50			15			
NV	X		15	15			15			Your question includes two mutually exclusive responses.
NY	X			25			50			The action levels are above site background and

