

Petroleum Tank Cleanup Section (PTCS)

PTCS Resource Tools

Guidance Documents Updated in 2017-2018

Montana Laws & Rules

MCA Title 75. Environmental Protection Chapter 11. Underground Storage Tanks

&

ARM 17.56.6

Release Response and Corrective Action for Tanks
Containing Petroleum or Hazardous Substances



Guidance Documents – updated 2017-2018

Remedial Investigation (RI) Guidance – October 2017

Release Closure Plan (RCP) – March 2018

Remedial Alternatives Analysis (RAA) Guidance – April 2018



Remedial Investigation (RI) Guidance – October 2017

- > Extensive Update:
 - RI goal single Work Plan and single Report
 - Work Plan & Report Requirements
- > Added:
 - Examples of maps, well/boring logs, and tables
 - Release Closure Plan (RCP)



Release Closure Plan (RCP) – March 2018

- ➤ Originally in RAA
 - RCP replaced the RA Matrix Evaluation in the RAA Guidance



Release Closure Plan (RCP) – March 2018

- ➤ Originally in RAA
 - RCP replaced the RA Matrix Evaluation in the RAA Guidance
- > RCP includes:
 - RI & Site Summary (Part 1)
 - Conceptual Site Model (Part 2)
 - Evaluation of Cleanup Alternatives (Parts 3 & 4)

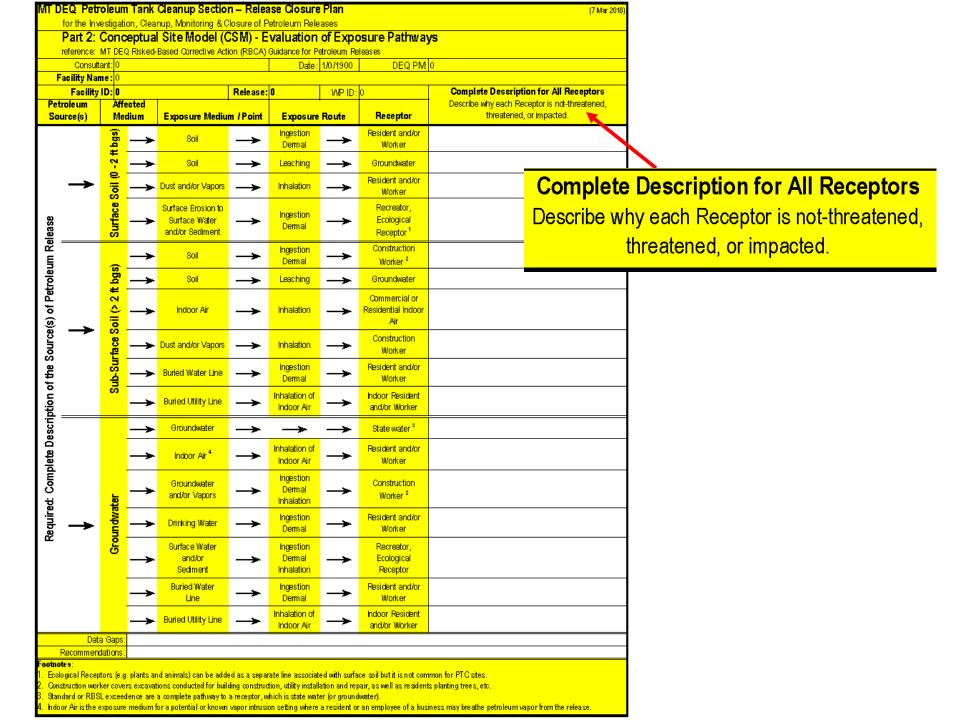


Release Closure Plan (RCP) – March 2018

- ➤ Originally in RAA
 - RCP replaced the RA Matrix Evaluation in the RAA Guidance
- > RCP includes:
 - RI & Site Summary (Part 1)
 - Conceptual Site Model (Part 2)
 - Evaluation of Cleanup Alternatives (Parts 3 & 4)
- > Creates a remediation plan from the beginning with closure in mind
 - RCP updated & included in all successive Reports



MT	DEQ Petroleum Tank Cleanup Section for the Investigation, Cleanup, Monitoring & Close	Release Closure Plan ure of Petroleum Releases				(7 Mar 2018)		
	Part 1: Site Summary & Remedial Investigation (RI) Results							
reference: MT DEQ Remedial Investigation (RI) Guidance for Petroleum Releases								
	Consultant:			Date:	DEQ PM:			
	Facility Name / Address:							
	Facility ID:		elease:	WP ID:				
	Release Cause, Source(s) & Petroleum Types:							
<u>.</u>	other releases onsite and nearby:							
nat	Site Use(s) Former, Current & Planned:							
<u>.</u>	Surface Conditions & Access:							
Ξ	former Petroleum Tank Systems:							
Site Information	current Petroleum Tank Systems:							
	Other:							
	Stratigraphic sequence - layers & thicknesses:							
Subsurface	Stratigraphic Continuity - Lateral Variation(s):							
Ë	Groundwater Depth & Flow Direction(s):							
lsq	Aquifer(s) unconfined, confined, perched:							
S	Receptor Depth/Location (basements, utilities):							
	Other:							
a	Petroleum Types, Age & NAPL Mobility:							
B	Surface Soil Impacts (0 to 2 ft bgs):							
l <u>ë</u>	Vadose-Zone Soil Impacts:							
Magnitude	Smear-Zone Soil Impacts:							
	Groundwater Impacts:							
Extent &	Surface Water Impacts:							
蓝	Petroleum Vapor Impacts:							
	Other:							
S	RI and Monitoring Reports & Dates:							
oorts	Pilot Tests & Results:							
Rep	Results from Cleanup(s):							
	Other:							
	What currently prevents Release Closure?							
	additional information required for PMZ Closure:							
	Information & Data Gaps: Recommendations and comments:							
	Recomments:	•						



MT I	DEQ Petroleum Tank Cleanup Se or the Investigation, Cleanup, Monitoring &	ction Rele	ase Closure Pl	an				(7 Mar 201	
- 10	Part 3: Evaluation of Cleanu			DEQ Remedial Alter	natives Analysis (R.	AA) Guidance for Pe	troleum Releases		
	Consultant:		Totalanas. IVI		1/0/1900	DEQ PM:			
	Facility Name / Address:			2 2.131					
	Facility ID:	0	Release:	0	WP ID:	0			
Adr	ninistrative Rules of Montana 17.56.605(3) requires	Enter appropriate site-specific Cleanup Methods that are based on RI results & CSM							
screening and selection of cleanup methods to develop a matrix evaluation of cleanup alternatives. A cleanup plan requires information on all alternatives and an explanation why any alternative was selected. Estimated Costs		No Action*	e.g. Excavation	e.g. Excavation & ORC	e.g. SVE & AS	fill-in as needed or leave blank	fill-in as needed or leave blank	fill-in as neede or leave blank	
ľ	Protective of Human Health & Environment (e. g. residences, utilities, water supply, future use)								
	Method-specific regulatory requirements (e. g. disposal of impacted soil & water, access agreements)								
Fria	Method-specific feasibility requirements (e. g. pilot tests, treatability studies) Contaminant-specific requirements (e.								
Evaluation Criteria	Contaminant-specific requirements (e. g. method achieves soil & GW_RBSLs & DEQ-7 standards)								
Evaluati	Location-specific requirements (e.g. potential historical, cultural, or ecological significance, or site near wetlands, floodplains, surface water, endangered species / migratory bird habitat)								
	Reliability Short Term								
L	Reliability Long Term								
L	Implementation Issues & Limitations								
H	Safety Issues								
Ľ	Effects on Public Health and Environment (includes Receptors)								
	Other site-specific criteria & issues:								
Advantages of Cleanup Method:									
Disadvantages of Cleanup Method:									
Est. Years to Complete Cleanup Method:									
	Cleanup Recommendations:		<u> </u>	l					
	Information & Data Gaps: Recommendations and comments:								
* Note:	Recommendations and comments: Cleanup technologies may be removed or added as ap	propriate for each R	Release: however, the 'No	Action attemative must	be evaluated for compa	arison at eveny Release			

MT DEQ Petroleum Tank Cleanup Section Release Closure Plan for the Investigation, Cleanup, Monitoring & Closure of Petroleum Releases (7 Mar 2018)								
Part 4: Compliance Monitoring reference: MT DEQ Remedial Alternatives Analysis (RAA) Guidance for Petroleum Releases								
	Consultant:				Date: 1/0/1900		DEQ PM: 0	
	Facility Name / Address:	0						
	Facility ID:	0	Release:	0	WP ID: 0			
Compliance & Operation Monitoring Methods to Evaluate Effectiveness of each Cleanup Alternative Listed in Part 3								
Administrative Rules of Montana 17.56.605(6) requires the cleanup plan to include a plan and schedule for compliance monitoring to evaluate the effectiveness of cleanup activities.		No Action*	e.g. Excavation	e.g. Excavation & ORC	e.g. SVE & AS	fill-in as needed or leave blank	fill-in as needed or leave blank	fill-in as needed or leave blank
	Confirmation Sampling							
	Borings/ Monitoring Wells (MWs)							
	GW Monitoring (freq., wells, years)							
dnu	System O/M (frequency & years)							
Evaluation of Cleanup	Petroleum Vapor Monitoring (freq., locations, years)							
n of	Receptor Monitoring							
atio	Waste Management							
alua	Other site-specific monitoring:							
Ev	Method(s) to Evaluate Interim Results and Optimize Cleanup:							
	Est. Years to Complete all Monitoring:							
	Estimated costs for O/M & monitoring:							
	Estimated Total Years to Closure:							
<u>re</u>	Natural Attenuation Trends:		•			•	-	•
Closure	What currently prevents Closure?							
	Is this a PMZ Closure Candidate?							
	Other:							
Information & Data Gaps:				-			-	
Recommendations and comments:								
* Note: Cleanup technologies may be removed or added as appropriate for each Release; however, the 'No Action' alternative must be evaluated for comparison at every Release.								

Remedial Alternatives Analysis (RAA) – April 2018

- > RAA can be a separate report or part of the RI report
- > RAA Process
 - RCP
 - RI Report including RAA
 - RAA Report (stand alone)



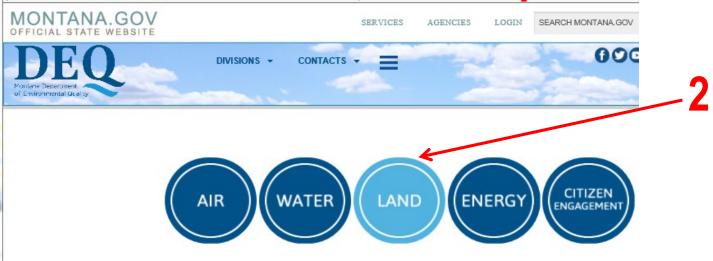
RAA Document Review Timeline

2018

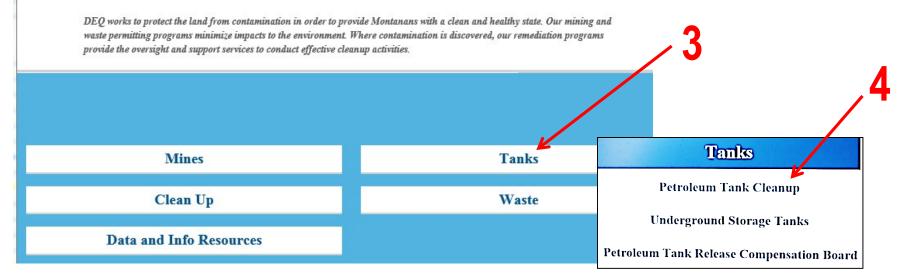
- RAA link sent to Consultants: April
- Presentation at Consultants Meeting: April
- Consultants Review: October
- Review and finalize RAA Guidance: December



http://deq.mt.gov ← 1



Land



MONTANA.GOV http://deq.mt.gov/Land/lust SERVICES **DIVISIONS** -CONTACTS -Petroleum Tank Cleanup Section Waste Management & Remediation Division Resources Abandoned Mine Lands Section Overview Federal Superfund & Construction Information NEW UPDATES Approved Work Plans Related Links Contacts Resources Contaminated Site Webinars and Trainings Clean-Up Forms Waste & Underground Petroleum Tank Release Compensation Board Forms and Worksheets Tank Management Enforcement Spill Report DEQ UST Montana Certificate of Financial Responsibility Form Financial Data Request Form for Individuals Financial Data Request Form for Businesses **RAA & RI** Work Plan and Report Templates Release Closure Plan (PDF not Fillable) **RCP** Release Closure Plan (Excel) Guidance Electronic Subbmittals: File Transfer Service for Corrective Action Plans (CAP)and Reports **RAA & RI** Technical Guidance Documents

> Petroleum Brownfields Guidance RBCA Guidance Documents

Guidance Documents – updated 2017-2018

- Remedial Investigation (RI) Guidance October 2017
- Release Closure Plan (RCP) March 2018
- Remedial Alternatives Analysis (RAA) Guidance April 2018

Questions or Comments



The End

