

EBC Site Remediation and Redevelopment Program: The 2018 MCP Amendments



Welcome

Jonathan Kitchen

*Chair, EBC Site Remediation &
Redevelopment Committee*

Principal, Civil & Environmental Consultants, Inc.



Environmental Business Council of New England
Energy Environment Economy

Program Purpose and What You Will Learn

Michelle N. O'Brien

Program Chair and Moderator

Partner, Pierce Atwood LLP



Environmental Business Council of New England
Energy Environment Economy

The Proposed MCP Amendments

Paul Locke

Assistant Commissioner

Bureau of Waste Site Cleanup, MassDEP



Environmental Business Council of New England

Energy Environment Economy

310 CMR 40.0000: MASSACHUSETTS CONTINGENCY PLAN

Section

SUBPART A: GENERAL PROVISIONS

- 40.0001: Authority
- 40.0002: Purpose
- 40.0003: Applicability
- 40.0005: Effective Dates
- 40.0006: Terminology, Definitions, and Acronyms
- 40.0007: Rules of Construction
- 40.0008: Computation of Time Periods and Deadlines
- 40.0009: Certification of Submittals
- 40.0010: Effect of Orders and Appeals
- 40.0011: Confidentiality of Information
- 40.0013: Presumption of Irreparable Harm
- 40.0014: Document Retention
- 40.0015: Content of Waste Site Cleanup Activity Opinions
- (40.0016: Laboratory Certification: Reserved)
- 40.0017: Environmental Sample Collection and Analyses
- 40.0018: Health and Safety Procedures
- 40.0019: Violations of Environmental Restrictions
- 40.0020: Violations of a Permanent or Temporary Solution
- 40.0021: Unlawful Interference with Response Actions
- 40.0022: Accurate and Timely Submittal of Documents
- 40.0023: Accurate and Complete Record-keeping
- 40.0024: Timely Action and Anticipatory Noncompliance
- 40.0025: Extensions of Deadlines and Time Periods for *Force Majeure*
- 40.0027: Remedial Monitoring Report
- 40.0028: Well Maintenance and Security
- 40.0030: Management Procedures for Remediation Waste
- 40.0031: General Provisions for the Management of Remediation Waste
- 40.0032: Contaminated Media and Contaminated Debris
- 40.0033: ~~Uncontainerized~~ Waste
- 40.0034: Bill of Lading Process
- 40.0035: Bill of Lading Form
- 40.0036: Management Requirements for Storing Remediation Waste
- 40.0040: Management Procedures for Remedial Wastewater and Remedial Additives
- 40.0041: General Provisions for the management of Remedial Wastewater and/or Remedial Additives
- 40.0042: Remedial Wastewater Discharges to Surface Water
- 40.0043: Remedial Wastewater Discharges to Publicly Owned Treatment Works (POTW)
- 40.0044: Remedial Wastewater Discharges to Non-publicly Owned Treatment Works
- 40.0045: Remedial Wastewater Discharges to the Ground Surface or Subsurface and/or Groundwater
- 40.0046: Application of Remedial Additives
- 40.0047: Reporting Requirements for Discharges of Remedial Wastewater and Remedial Additives
- 40.0049: Remedial Air Emissions
- 40.0050: Appeals of Orders and Permits
- 40.0051: Appeals Relative to Administrative Penalties
- 40.0060: Special Project Designation Permits
- 40.0061: Purpose and Eligibility
- 40.0062: Procedures for Applying Special Project Designation
- 40.0063: Approval of Applications for Special Project Designation Permits, and Special Project Designation Permit Modifications, Transfers or Extensions
- 40.0064: Special Project Designation Conditions
- Modification of Special Project Designation Permit
- Transfer of Special Project Designation Permit
- Extension of Special Project Designation Permit
- Termination of Special Project Designation Permit
- Suspension and Revocation of Special Project Designation Permit
- Approval Process for Special Project Designation Permits

The 2018~~8~~9 MCP Amendments

Paul W. Locke

MassDEP Bureau of Waste Site Cleanup

One Winter Street

Boston, MA 02108

617/556-1160

Paul.Locke@Mass.Gov

www.Mass.Gov/dep

MassDEP



CAVEATS

- Details may change before actual proposed draft is published
 - Including content, NTR #'s and page citations
- This is a SUMMARY and does not cover ALL the proposed changes
 - What I think is minor or straightforward and/or boring (and don't mention) may be very important to YOU
 - Be sure to read it all yourself
 - Twice



Schedule

- Approve Draft for Public
- Inter-Agency Notice Period
- Publication in the Massachusetts Register...
12/14? 12/28?
- 2 ½ - 3 month Public Comment Period...
through Ides of March?
- 3-4 Public Hearings mid-January -> February?
- BWSC Advisory Committee Meeting 1/24/19
- LSPA Membership Meeting 2/12/19



Topics & *Interesting*** Topics

- PFAS Standards/Notification Requirements **
- Risk Assessment
 - Gardening Exposures
 - Exposure Point Concentrations **
 - Hierarchy of Toxicity
 - Imminent Hazards **
 - Other Method 1 Standards
- Program Coordination
 - NAULs at Federal Sites
 - UST Sites
 - Radioactive Waste **
 - GW-1 Areas (Drinking Water)
- Climate Change
- Remedial Additives
- Tier Classification
- Temporary Solution Status Reports
- AEPMMs
- AULs for LNAPL
- GPS Coordinates
- Improved Communication (Notice)
- Liquified Gasses
- Waste Deposits



PFAS

Add Method 1 standards and RCs for perfluoroalkyl substances—PFAS—emerging contaminants of concern for exposure in drinking water

- NTR #65, Many Tables in 310 CMR 40.0900 & 40.1600
- NTR includes very specific PFAS-related questions about toxicity, cumulative impact, analytical limitations, etc...
- Public comment received on MCP proposal will inform possible revision of MassDEP ORSG and possible development of a Massachusetts Maximum Contaminant Level (MMCL)



Gardening

Provide more detail on when Best Management Practices for Gardening are required and how to implement qualitative assessment of pathway

- NTR #62, 310 CMR 40.0942(1)(e), page 232
- Clarify Method 1 can be used and presumed to be protective of gardening-related exposures
- Under Method 3, exposures must be quantified UNLESS
 - BMPs are implemented (current use) or recommended (future use)
 - Permanent Solution with Conditions documents/discusses the pathway and BMPs



Exposure Point Concentrations

Incorporate up-to-date methodologies and strategies for determining EPCs and appropriately account for contaminant distribution and variability

- NTR #61, 310 CMR 40.0926, page 218
- Maximum Value vs Arithmetic Mean (75/10 rule) vs Upper Confidence Limit on the mean (90th/95th percentiles)
- Separate discussions for groundwater, soil, indoor air, sediment, surface water, Hot Spot & Upper Concentration Limit calculations
- Retain a simple approach for simple sites



Hierarchy of Toxicity

Specify requirements for identifying toxicity values for Method 3 risk characterization, including requiring the use of values developed by MassDEP and listed in regulation

- NTR #67, 310 CMR 40.0993(7) & (8), page 267
- List toxicity values include perchlorate, MtBE, PCE...
- List of potential sources for toxicity information listed with preference given for consideration



Imminent Hazards

Update surficial soil concentrations indicative of a potential Imminent Hazard and amend the IH risk management criteria to remove ambiguity in identifying IH conditions

- NTR #34 #63, 310 CMR 40.0321 & 40.0955, page 125 & 236
- New numbers reflect new toxicity info & 2014 methodology (As, Cd, Hg & PCBs affected)
- ELCR/HI “is greater than” changed to “is equal to or greater than” the risk limit
- Eliminate uncertainty & “rounding bias”...
E.g., Is a Hazard Index = 1.47 an Imminent Hazard for TCE?



Method 1 Standards Update

Update MCP Method 1 numerical cleanup standards, Method 2 Direct Contact Standards, Method 3 UCLs and corresponding Reportable Concentration (RCs)

- NTR #65, Many Tables in 310 CMR 40.0900 & 40.1600
- Reflect more recent scientific and technical information on chemical exposure and toxicity
- Documentation available, *“Summary of Proposed MCP Method 1 Standards Revisions (2018)”*
- Excel spreadsheet available to review calculations
- Also add a few new hazardous materials...



Cross-Program Coordination: NAULs at Federal Sites

Clarify requirements for Notices of Activity & Use Limitations at a CERCLA Site

- NTR #16 & 22, 310 CMR 40.0020(5) & 40.0111, pages 58 & 92
- Unassessed changes inconsistent with AUL requires notice to DEP and EPA and response actions to restore the remedy
- Detail applicability of MCP provisions to NAULs at CERCLA sites
- Map CERCLA status with corresponding MCP status as a Permanent Solution or Remedy Operation Status



Cross-Program Coordination: Underground Storage Tanks (UST)

MCP notification provisions for tank tightness testing to be consistent with the UST Program regulations

- NTR #28 & #29, 310 CMR 40.0313(2) & 40.0314, p. 118-120
- Change from 527 CMR 9.00 to 310 CMR 80
- Explicitly reference tightness test at 310 CMR 80.32



Cross-Program Coordination: Radioactive Material

“Adequately regulated” provisions for disposal sites with radioactive materials intended to minimize duplicative oversight by MassDEP and MassDPH Radiation Control Program

- NTR #13, #23 & 73, 310 CMR 40.0006, 40.0115 & 40.1012(2)(e), pages 38, 99 & 285
- Licensed facilities with only radioactive waste => MassDPH RCP
- Licensed facilities with mixed waste...
rad => MassDPH RCP and other OHM => MCP RTN
- Unlicensed facilities => MCP RTN, with rad waste addressed under MCP, but consistent with RCP procedures; AUL required



Cross-Program Coordination: Drinking Water (GW-1)

Amend criteria for determining drinking water areas (GW-1 areas) to align with areas protected by the drinking water regulations

- NTR #7 & #12, 310 CMR 40.0006, pages 23 & 33
- Exclude (not GW-1) Zone A of Class A surface water for “emergency supplies” approved by DEP
- Include (again, not GW-1) permitted landfills and wastewater residual monofills to NPDWSA land use list



Update Petroleum Contamination in Certain GW-1 Areas

Clarify that the presence of non-petroleum hydrocarbon contaminants does not necessarily preclude the use of this provision.

- NTR #60, 310 CMR 40.0924(6)(c), page 215
- For the purposes of THIS provision, defined “petroleum hydrocarbons”... excludes additives
- Eliminate the “contamination is limited to oil” language
- Non-petroleum contaminants may exist at site, must meet usual requirements



Climate Change

Emphasize that anticipated climate change impacts are relevant to response actions and MCP outcomes.

- NTR #5, #25 & #71, 310 CMR 40.0006, 40.0191(1) & 40.1005(1), pages 20, 114 & 284
- MCP requirements to consider “foreseeable future” site conditions includes obligation to consider climate change
- Add use of accurate & up-to-date “models” to RAPS
- Add consideration of relevant EOEEA policies & guidelines



Remedial Additives

Further refine 2014 changes related to notice/ approval process for use of additives

- NTR #21, 310 CMR 40.0046(3), page 75
- Need for prior approval narrowed to treatment of volatile OHM at locations near school, daycare/child care residence
- Shorten presumptive approval time from 30 to 21 days
- Specify how request for approval is requested (IRAP, RAM Plan or RIP) and identified (clearly)



Tier Classification & Extensions (1)

Clarify how Tier *Re*-Classification occurs and with what documentation

- NTR #46, 310 CMR 40.0520-40.0530, page 173-175
- Reclassification (Tier I <-> Tier II) does not need a new Phase 1 – just relevant information (Phase Reports, Status Reports, Completion Statements...)
- Reclassification requires public involvement



Tier Classification & Extensions (2)

Clarify the need to maintain Tier Classification until a Permanent Solution is achieved

- NTR #47-52, 310 CMR 40.0501-40.0560, page 170-180
- Eliminate 45-day “prior” submittal requirement – extensions effective for 2 years
- Tier Classification must be maintained until a Permanent Solution/ROS is achieved
- Temporary Solutions must maintain their Tier Classification
- Post-Temporary Solution Status Reports automatically maintain Tier Classification



Temporary Solution Status & Remedial Monitoring Reports

Clarify and standardize requirements for post-Temporary Solution Status Reports

- NTR #58, 310 CMR 40.0898, page 208
- Require 6-month status reports for Temporary Solutions with Active O&M regardless of TS category
- Require annual status reports for a Temporary Solution without Active O&M
 - Except for alternative schedules presumptively approved by DEP



AEPMMs

Continued evolution of new 2014 requirements for Active Exposure Pathway Mitigation Measures as part of Permanent Solutions, Temporary Solutions & ROS

- NTR #75-#77, 310 CMR 40.1025-1026, pages 288-294
- Focus more on measurement of system vacuum for SSDS
- Address monitoring for drinking water AEPMMs
- Modify annual certification to acknowledge notification requirements



AULs for LNAPL

Limit the requirement for an AUL to visible/anticipated levels of NAPL greater than ½ inch in thickness

- NTR #72, 310 CMR 40.1012, page 284
- Original intent of 2014 MCP revisions
- Consistent with the enforcement discretion position stated in MassDEP's 2016 guidance, "Light Nonaqueous Phase Liquids (LNAPL) and the MCP: Guidance for Site Assessment and Closure"



GPS Coordinates

Incorporate requirement for GPS coordinates for the location of monitoring wells in MCP submittals

- NTR #11, 310 CMR 40.0006, page 32
- Continues the migration to “better” and more accurately tracked data
- Opportunities for better understanding of regional conditions, such as groundwater depth & flow
- Enhance the availability of map-based disposal site information for program stakeholders



Improved Communication (1)

Notice to Affected Individuals upon confirming the presence of an IH or CEP and the posting of the notice in multi-unit and commercial/industrial buildings to inform building occupants

- NTR #94, 310 CMR 40.1403(11), page 381
- Notification within 72 hours of confirmation
- Posting required for duration of IRA
- Copy to MassDEP in next Status Report



Improved Communication (2)

Required written notices to local officials and other parties under the public involvement provisions may now be sent by email rather than by mail if there is written agreement between parties

- NTR #93, 310 CMR 40.1403(2), page 375
- OPTIONAL as long as it is agreed to among parties



Notifications for Liquefied Gasses

Notification exemption for notification to MassDEP of releases of liquid nitrogen or liquid oxygen, with caveats

- NTR #33, 310 CMR 40.0317(24), page 123
- RQ's for OXYGEN (LIQUID), NITROGEN (LIQUIFIED) = 10 lbs remain unchanged
- MCP notification not required if (and only if) releases are managed according to requirements specified by local public safety officials overseeing the response.
- Message: tell local firefighters & do what they say & stay out of the MCP



Explicitly Address Waste Deposits

Ensure appropriate risk characterization of manufactured gas plant waste and other waste deposits in soil

- NTR #9, #10 & #68, 310 CMR 40.0006 & 40.0995 & 40.0996(2), pages 28, 32, 272 & 275
- Yes, apparently it is necessary to spell out that waste deposits must be explicitly evaluated
- Waste deposits = Hot Spots, by definition
- UCL comparison includes comparison to concentrations within the waste itself



The 2018 MCP Amendments: Moderated Discussion

Moderator:

- **Michelle N. O'Brien**, *Pierce Atwood LLP*

Panelist:

- **Paul Locke**, *MassDEP*



Environmental Business Council of New England
Energy Environment Economy