# Remediation Roundtable March 22, 2022



# **Remediation Roundtable Agenda**

#### Division Personnel Changes

#### Roundtable Tips

#### Updates

- Release-Based Clean Up Program Regulation Development
- Release Reporting Regulations
- PFAS Action Plan



# Webpage Updates

**Connecticut Remediation Standard Regulations** 

- Revised <u>Wave 2 RSRs & EUR Regulations Q&A</u>
- All <u>Technical Support Documents</u> added to this page

Public Notice Requirements NEW

Engineered Control Variances – FA Template for Receipt of Check NEW

<u>Environmental Use Restrictions</u> – revised forms/submittal procedures

- EUR Notification of Transfer Form NEW
- <u>Environmental Land Use Restrictions (ELUR)</u>
- Notices of Activity and Use Limitation (NAUL)
- <u>Emergency and Non-Emergency EUR Releases</u>

New Landfill Monitoring Form- includes list of Landfills under

Remediation Oversight Connecticut Department of Energy and Environmental Protection: Remediation Division

Joanna Burnham



# Webpage Updates

Licensed Environmental Professional (LEP) Verification Audit Program

LÉP Verifications – NEW 133x forms and revised Form IIIs

Verification Form Instructions

Release-Based Clean Up Program Regulation Development

- <u>Stakeholder Engagement Advice and Recommendations</u>
- <u>Release-Based Working Group Additional Issues for Review</u>
   **NEW**

<u>RCRA Corrective Action, Closure, and Stewardship</u> – Stewardship Permit section added



### LEP Board\* Mtg Schedule 2022

- January 13<sup>th</sup>
- February 17<sup>th</sup> (3<sup>rd</sup> Thursday)
- March 10<sup>th</sup>
- April 14<sup>th</sup>
- May 12<sup>th</sup>
- June 9<sup>th</sup>
- July 14<sup>th</sup>
- August 11<sup>th</sup>
- September 8<sup>th</sup>
- October 13<sup>th</sup>
- November 10<sup>th</sup>
- December 8<sup>th</sup>
- Meetings start at 9:30AM and will be conducted via teleconference for the foreseeable future.
- Join the zoom meeting, typically held on the 2<sup>nd</sup> Thursday of the month.
- https://ctdeep.zoom.us/j/6054257048
  - \* Officially, the State Board of Examiners of Environmental Professionals



### **Current LEP Board Members 2022**

Kenneth M. Collette, Esq. Chairman, Department of Energy & Environmental Protection

John Adams, LEP, Tetra Tech, Inc.

Michelle Gamache, People's United Bank, N.A.

Robert F. Good, Jr., LEP, WSP USA, Inc.

Carol Violette, Business Representative

Daniel Wolfram, CHMM, LEP, Woodard & Curran

David Fiereck, LEP PE, Loureiro Engineering NEW

Russell Dirienzo, LEP, representing the Shepaug River Association NEW

Louis Muratore, CHMM, LEP, RED Technologies, LLC NEW

Vacant LEP PE

Vacant Environmental Organization representative





#### **LEP** Program

https://portal.ct.gov/DEEP/Remediation--Site-Clean-Up/Licensed-Environmental-Professional-Program/Licensed-Environmental-Professional-Program

Agencies' calendar of public meetings, including the State Board of Examiners of Environmental Professionals

https://egov.ct.gov/PMC/

**Applications for vacancies on Boards and Commissions** 

https://www.jobapscloud.com/CT/sup/bulpreview.asp?R1=190219&R2=123 4BC&R3=BCM

\*Please also send a copy of the application for a board vacancy to <u>elizabeth.mcauliffe@ct.gov</u>



# **2022 RSR and EUR Training Course**

EPOC and CT DEEP, invite you to two webinar focused courses on the current Remediation Standard Regulations (RSRs) and Environmental Use Restrictions (EURs).

If you wish to attend both courses, you must register for each one separately through EPOC:

- 1. <u>Remediation Standard Regulations 2022: Course 1: General</u> <u>Provisions and Soil (8 hours total in 2 sessions):</u> <u>April 5, 2022 (10 AM - 3 PM) AND April 7, 2022 (10 AM - 3 PM)</u>
- 2. Remediation Standard Regulations 2022: Course 2: Groundwater and EURs (8 hours total in 2 sessions): April 13,2022 (10 AM - 3 PM) AND April 14, 2022 (11 AM - 4 PM)



# **Questions or Comments?**

### Please type your Questions into CHAT

# If we need further clarification, we may take you off mute to speak

#### www.ct.gov/deep/remediationroundtable



### **Remediation Division Personnel Changes**

# **Ray Frigon** Assistant Division Director, Remediation Division



# Retirements as of 2/1

#### **Betsey Wingfield**

#### **Deputy Commissioner**



Connecticut Department of Energy and Environmental Protection: Remediation Division

**Ray Frigon** 



# Retirements as of 3/1

# Jan Czeczotka

#### **Division Director**





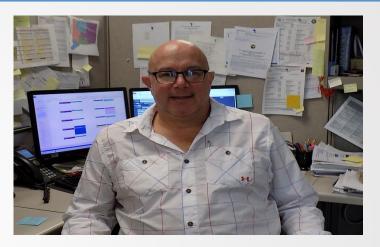
# Retirements as of 3/1

#### Tom Riscassi

Supervisor South Central District

Pat DeRosa

Supervisor Northwest District







# Retirements as of 4/1

# Jacques Gilbert Supervisor Technical and Compliance Support





MaryAnne Danyluk

Southwest District



# More Retirements as of 4/1

#### Sandy Brunelli

Technical and Compliance Support





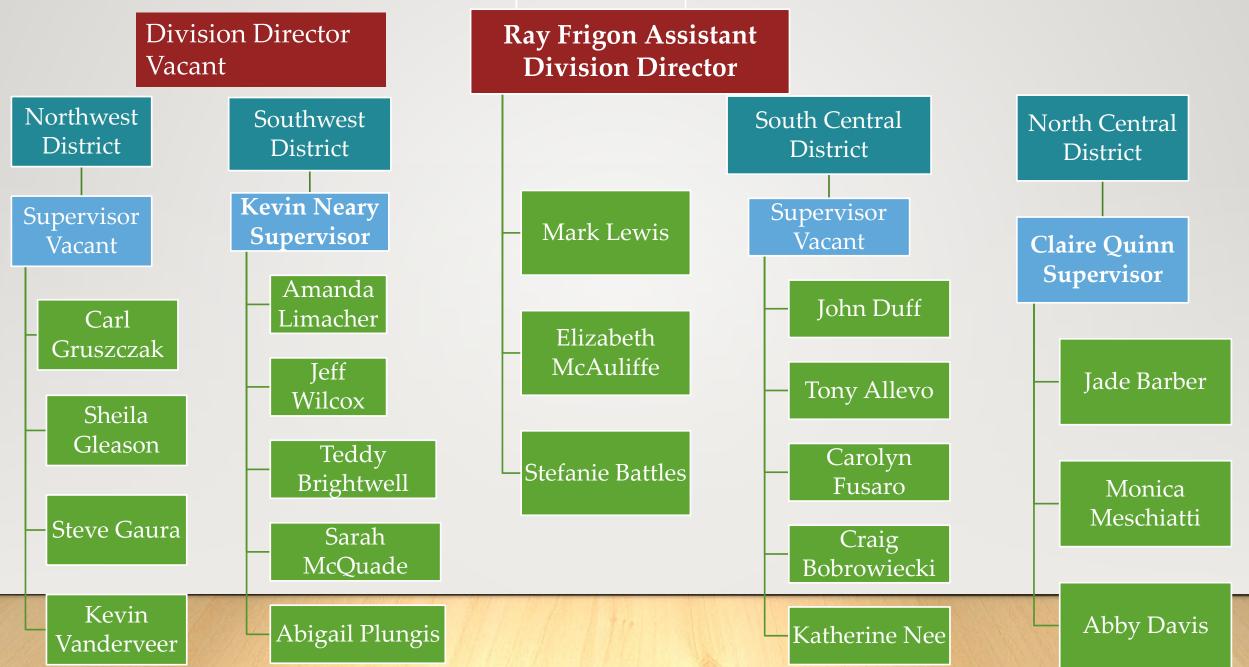


**Other Departures:** 

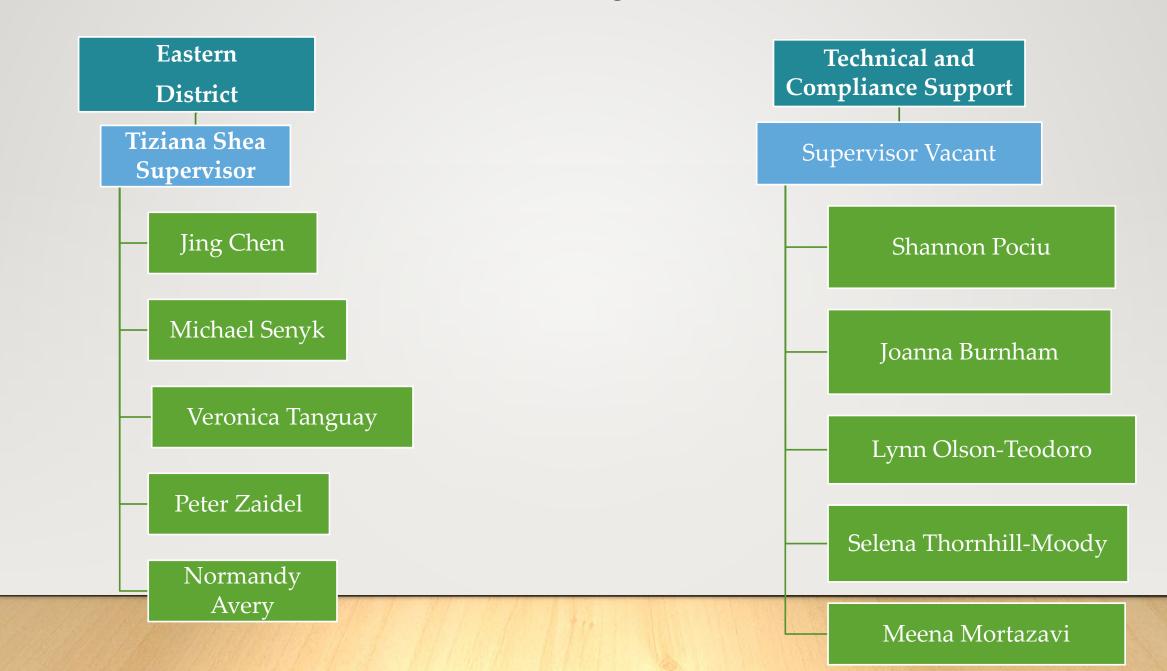
Emma Forbes: Northwest District New Arrivals: Tiziana Shea: Eastern District Supervisor Jeffrey Brais: Southwest District New promotions:

Claire Quinn North Central District Supervisor

#### **Remediation Division Organizational Chart**



#### **Remediation Division Organizational Chart**





# **Questions or Comments?**

### Please type your Questions into CHAT

# If we need further clarification, we may take you off mute to speak

#### www.ct.gov/deep/remediationroundtable

# Remediation Roundtable Tips



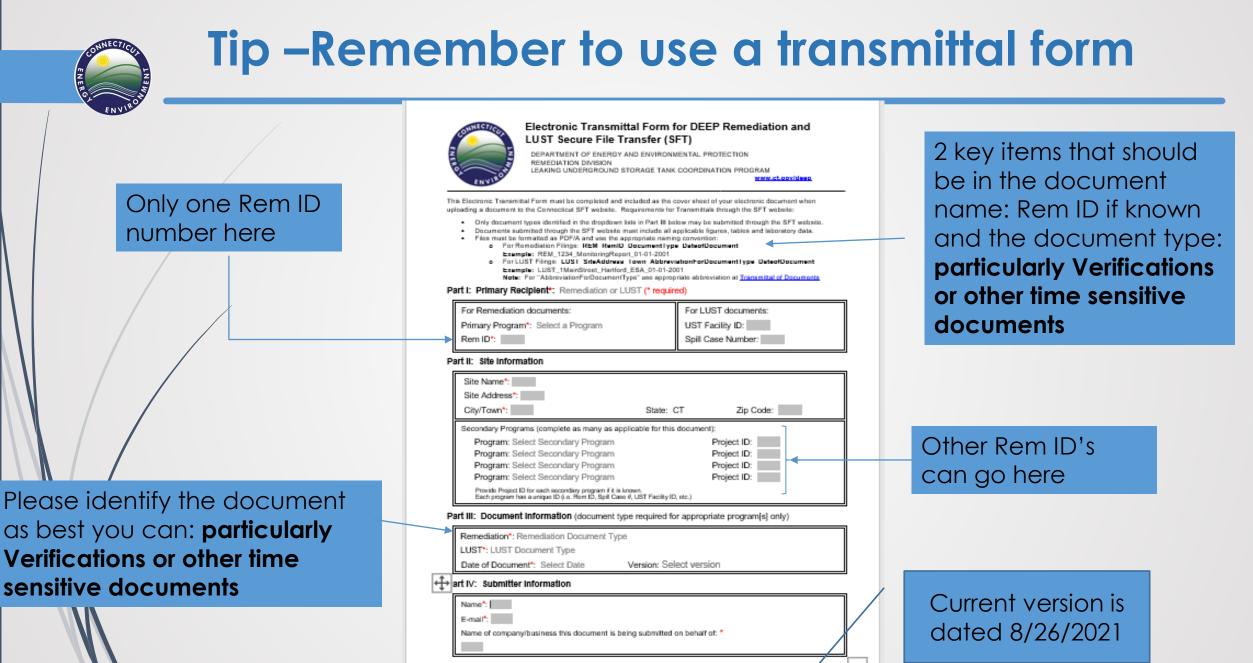


# Filling Out Your Forms

#### Joanna Burnham

Environmental Analyst

**Remediation Division** 



Connecticut Department of Energy and I

Riv.08-28-2

DEED.ETE

Joanna Burnham

# **Tip – Verification Form Structure**

# Indented Form Fields – Need to be completed only if the primary field is applicable

Example: If VOCs were not detected in groundwater, the boxes related to meeting the VoIC do not need to be checked

7a.	7a. Compliance with VoIC	
	Volatile compounds were not detected at the Site	
	Groundwater complies with VoIC	
	□ ≤ Residential (Res) VolC	
	□ ≤ Industrial/commercial (I/C) VoIC	
	→ EUR recorded	

Connecticut Department of Energy and Environmental Protection: Remediation Division

Joanna Burnham



# **Questions or Comments?**

### Please type your Questions into CHAT

# If we need further clarification, we may take you off mute to speak

#### www.ct.gov/deep/remediationroundtable

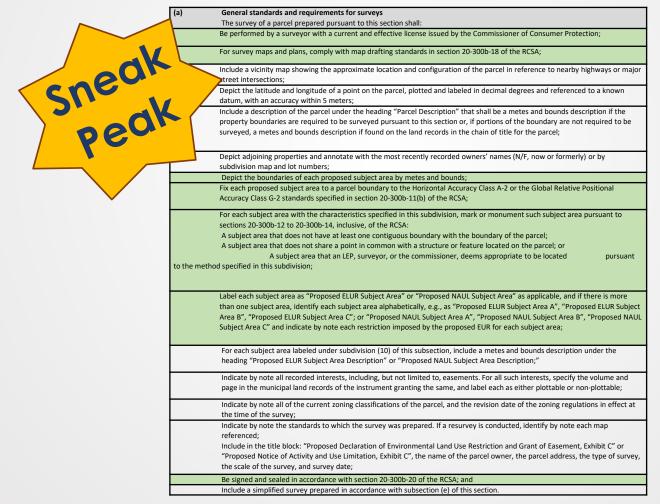
# Environmental Use Restriction (EUR) Tips

Jade Barber and Amanda Limacher EUR Team Remediation Division

### **EUR Tips**

#### Survey & simplified survey are both recorded for all EURs

#### Survey checklist will be posted soon & is available now upon request



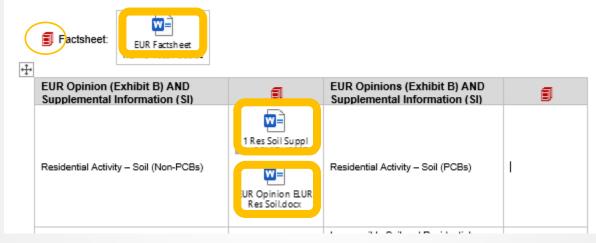
**Remediation Division** 



**Remediation Division** 

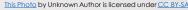
#### EUR Form:

Embed documents in the squares provided per the instructions



- When to Embed Word vs. PDF
  - All fillable EUR form documents should be embedded in Word format
    - \*Except those that are signed\*
  - PDFs must be embedded in Adobe Acrobat format





### **EUR Tips**

**Remediation Division** 

### Supplemental Information:

Information should reflect <u>current conditions</u>

#### **DO** Include:

- Figures with Subject Areas and sample locations
- Data tables to support the EUR restrictions (i.e., confirmation samples following excavation)

#### DON'T Include:

- Historical data (i.e., sample results for soil excavated from the subject area)
- Unrelated data (i.e., sample results from AOC not addressed by EUR)



emediation Division

Public notice - Recommend using "EUR" instead of "ELUR" or "NAUL"



Agreement to Subordinate must be provided with draft Subordination in ELUR Table 1

An LEP or the Commissioner can approve a NAUL

Found an issue on a form? Please let us know!





Feel free to contact us: Jade Barber <u>Jade.Barber@ct.gov</u> Amanda Limacher <u>Amanda.Limacher@ct.gov</u> EUR Program <u>DEEP.EUR@ct.gov</u>



This Photo by Unknown Author is licensed under <u>CC BY-NC</u>



# **Questions or Comments?**

### Please type your Questions into CHAT

# If we need further clarification, we may take you off mute to speak

#### www.ct.gov/deep/remediationroundtable

# Update: Working Group on Release-Based Cleanup Regulations

March 22, 2022 Graham Stevens Bureau Chief, Water Protection and Land Reuse



**Connecticut Department of Energy and Environmental Protection** 

# Latest Concept Papers

 Three Subcommittees are completing work and will be submitting <u>Concept Papers</u> by March 31, 2022



- Concept Papers will be posted for public review and feedback on DEEP's webpage
- DEEP will again provide its written feedback on Concept Papers
- Working Group internal review process will take several weeks



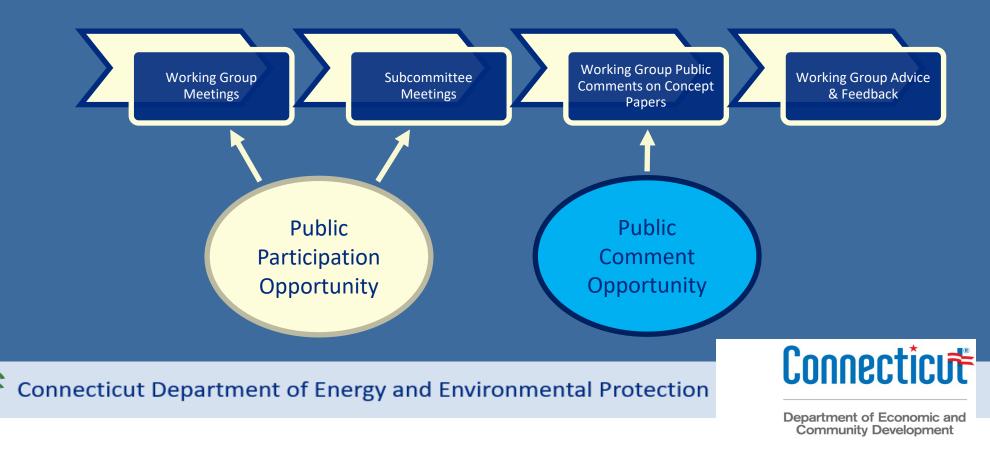
Connecticut Department of Energy and Environmental Protection



Department of Economic and Community Development

## Working Group – Advice & Feedback

### Second Phase Subcommittee Process



# Guidance and Forms Ad Hoc Team

- Survey for volunteer participants extended due to low response
- Ad Hoc Team will now be opened to Working Group and Subcommittee members (past and present) at Working Group's request
- Email request for volunteers in near future with first meeting anticipated in June

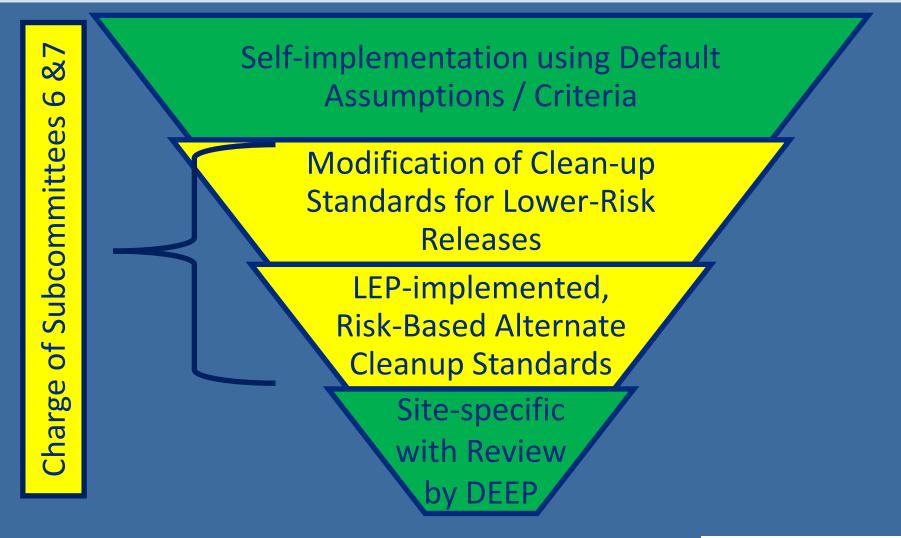


**Connecticut Department of Energy and Environmental Protection** 



Department of Economic and Community Development

## Cleanup Regulations – Start with RSRs



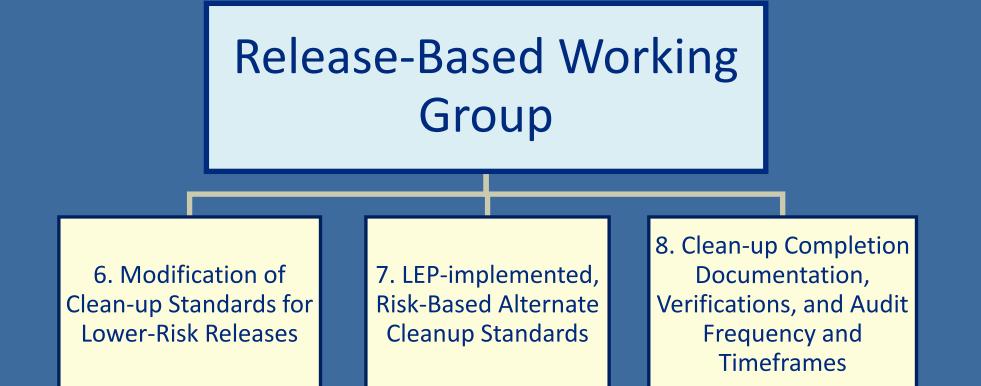


**Connecticut Department of Energy and Environmental Protection** 

Connecticut

Department of Economic and Community Development

## **Draft Second Phase Subcommittees**



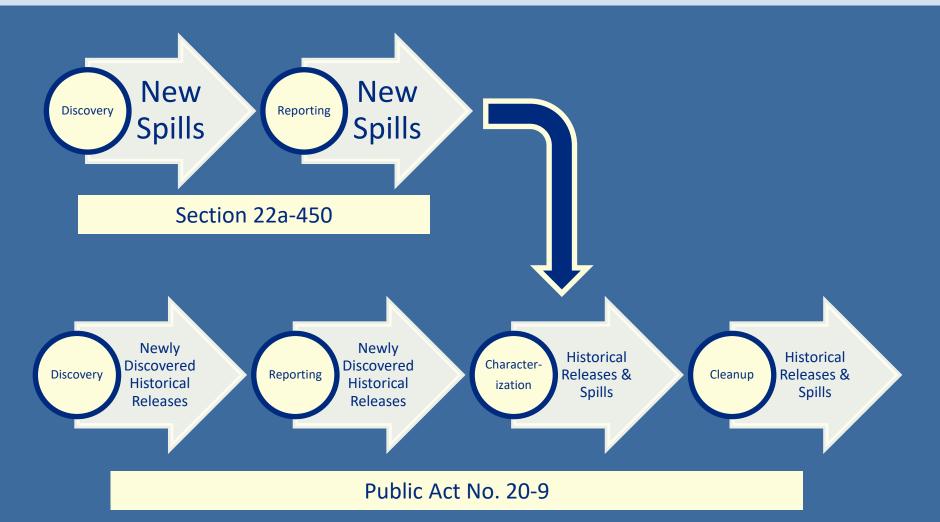


Connecticut Department of Energy and Environmental Protection



Department of Economic and Community Development

#### Section 22a-450 vs Public Act 20-9





Connecticut Department of Energy and Environmental Protection

Connecticut

Department of Economic and Community Development



#### Please type your Questions into CHAT

After the presentation you can email Graham directly at: graham.stevens@ct.gov

Formal feedback can also be sent to: <u>DEEP.Cleanup.Transform@ct.gov</u>



## **Release Reporting Regulations**

3/22/2022
Lori Saliby
Assistant Director
Emergency Response & Spill Prevention Division



## **Basic Framework**

<u>3 Categories of Reporting</u> (with exceptions)

- 1) Category 1: Report ANY Quantity
- 2) Category 2: 5 Gallons
- 3) Category 3: 1.5 gal (liquid) or 10 lbs (solid)
- 4) Exceptions



## **Reporting Process**

#### 2 Types of Reports

- 1) Initial Report & Actions
- 2) Follow up report upon request of the commissioner



## Flowchart

- Link to flowchart
- Flow-Chart-FINAL 2 25 22.pdf (ct.gov)

- Link to regulation
- getDocument (ct.gov)



## **Questions?**

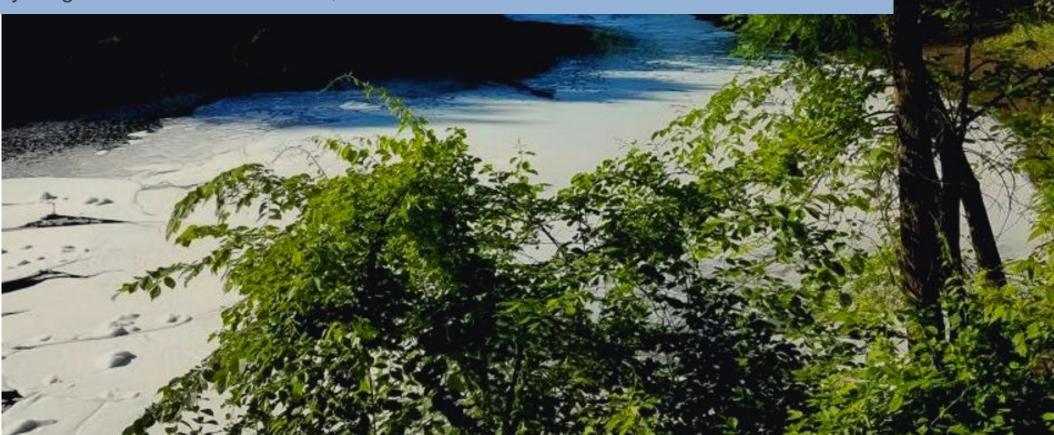


**REMEDIATION ROUNDTABLE – 3/22/2022** 

## **PFAS Action Plan Update**

Speakers: Ray Frigon and Shannon Pociu, CT DEEP Remediation Division





# State Agency Efforts on PFAS

- Putting PFAS Action Plan recommendations "into action"
  - ✓ Internal DEEP PFAS working group
  - $\checkmark\,$  Close coordination between DEEP and DPH
  - ✓ Close coordination with other state agencies/entities (DESPP, DAS, CAA, UCONN, Yale)
- Keeping up with the science
  - ✓ Participation in regional and national workgroups
  - ✓ Collaboration with local universities
- Outreach and guidance to affected residents, municipalities, health departments, and stakeholder groups





# AFFF TAKE-BACK PROGRAM

- AFFF Take-Back Program (DEEP/DESPP, supported by \$2M bond)
  - ✓ PFAS-free foam selected by DESPP with DEEP input: Feb. 5, 2021
  - ✓ Take-back program for state/municipal AFFF concentrate in containers
    - >33,000 gal. collected from 250 fire departments
    - ✓ Phase 1 Container collection and storage/disposal: Launched in May 2021
    - ✓ Phase 2 Decontamination study: Initiated Summer 2021
    - □ Phase 3 Remove AFFF from and decontaminate apparatus: Pending funding



## AFFF DECONTAMINATION STUDY



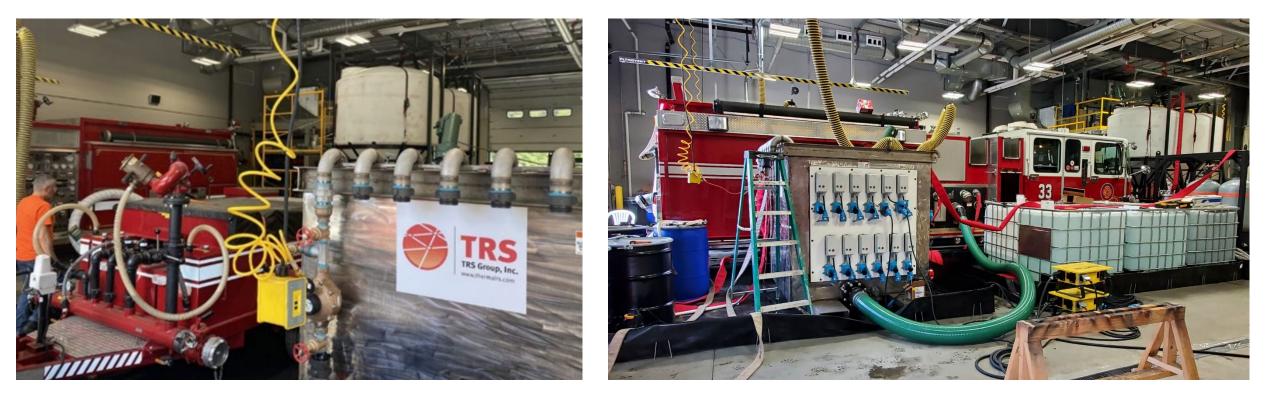


#### 2 Decon Vendors & Cleaning Methods

- AECOM teaming with TRS and Hiller using *PerfluorAd*<sup>®</sup> system
- $\circ$  Arcadis using V171 / Fluoro Fighter<sup>TM</sup>
- Focus on cleaning state's 8 regional foam trailers and 3 fire trucks
- Sampling Fluorine-Free Foam from municipal fire departments that already replaced AFFF



## **AFFF DECON STUDY - AECOM/TRS/Hiller**



#### Foam Trailer & Fire Truck Cleaning using *PerfluorAd*® system



## **AFFF DECON STUDY - Arcadis**



Foam Trailer Cleaning using Fluoro Fighter™



## **AFFF Use Extensions**

- Per PA 21-191/CGS 22a-903a, extensions to comply with 10/1/2021 AFFF ban may be allowed for:
  - Chemical plants
  - $\circ$  Oil refineries
  - $\circ$  Terminals
- 23 facilities have been granted compliance extensions.
- For more information: <u>Extension of Class B PFAS Firefighting Foam Use (ct.gov)</u>



## **ONGOING PFAS PROJECTS – POTW Testing**

- Sampling of about 1/3 of POTWs (35)
  - Summer sampling round completed 9/30/21
  - Second round being completed week of 3/21/22
- Media tested:
  - Influent, effluent, sludge at all 35 POTWs
  - Scrubber water at 4 POTWs with incinerators
  - Surface water and fish tissue samples from 10 receiving waters (summer only)
  - Final report anticipated in late Spring 2022





## **ONGOING PFAS PROJECTS – Potable Water** Testing

#### Killingworth & East Hampton

- DEEP sampling private wells & providing bottled water or GAC treatment where concentrations exceed the action level
- Source investigation pending in Killingworth
- Testing in additional communities forthcoming in 2022/23
  - Locations TBD based on PFAS GIS project/
     Vulnerability Study, prioritizing areas at high risk of PFAS pollution in EJ communities
  - Will utilize \$1.15M in bond funds received at 12/21/21 Bond Commission Meeting (PA 21-111)

ren liner ter liner 



#### **ONGOING PFAS PROJECTS** – UCONN Senior Design

4 PFAS-related Senior Design Projects selected by UConn School of Engineering students for 2021-2022 school year.

- Soil Background Study with DEEP, Complete Environmental Testing (CET) donating sample analysis
- 2. In-situ Soil Remediation alternatives analysis with DEEP, CET
- **3. PFAS in Artificial Turf** with DEEP and DPH Environmental Health, CET
- 4. PFAS Laboratory Extraction design a new automated solid phase extraction technique (with DPH Lab Certification Program)

# UCONN | UNIVERSITY OF





# **Current Regulatory Status – CT DPH**

- Drinking Water Action Level for the Sum of 5 PFAS (11/2016) PFOA, PFOS, PFNA, PFHxS & PFHpA
   70 parts per trillion (ppt) or nanograms per liter (ng/L)
  - \* May change in the future as DPH reviews updated information.
- DPH State Health Laboratory
  - Purchasing lab equipment to analyze PFAS in drinking water samples.
  - Estimated in-service mid-2022.



This Photo by Unknown Autho is licensed under CC BY-NC



## **RSR Additional Polluting Substance Criteria**

#### Applies to ∑ PFOA, PFOS, PFNA, PFHxS & PFHpA

Remediation Standard	Criterion
Residential Direct Exposure Criterion	1.35 mg/kg
Industrial/Commercial Direct Exposure Criterion	41 mg/kg
GA Pollutant Mobility Criterion	1.4 μg/kg
GB Pollutant Mobility Criterion	14 µg/kg
Groundwater Protection Criterion (adopts DPH's Drinking Water Action Level for ∑ PFOA, PFOS, PFNA, PFHxS, PFHpA)	70 ng/L
Surface Water Protection Criterion	In Development

**Requesting APS and Alternative Criteria (ct.gov)** 



# **Remediation Division**

FROM DEEP Website: <u>Contaminants of Emerging Concern (ct.gov</u>)

"The Remediation Standard Regulations do not contain numeric cleanup standards for emerging contaminants but do require remediation using the procedures for <u>Additional Polluting Substances</u> (APS). *Regulated parties and their environmental professionals should consider whether emerging contaminants are constituents of concern when evaluating Phase I information and test for those emerging contaminants where warranted. Doing so will help avoid uncertainty, audits, and further work in the future.*"

#### If PFAS are contaminants of concern based on site history/ operations, they must be included in site characterization.



## Significant Environmental Hazards & PFAS

#### CGS Section 22a-6u(c)

- After July 1, 2015, if a TEP in the course of investigating and remediating pollution on or emanating from a parcel determines pollution has affected a public or private drinking water supply well...with any substance from the release for which there is no RSR criterion,
  - TEP shall notify client and owner of property within 7 days.
  - Owner of parcel that is the source of pollution to a drinking water well shall, within 30 days:
    - 1) Perform confirmatory sampling of well and submit report to Commissioner with a plan for further action, and
    - 2) Notify Commissioner in writing.



## Water Permitting & Enforcement Division (1)

- Discharge Permit Focus: Preventing new releases to the environment.
- New permits, renewals, or modifications for facilities with specific SIC/NAICS codes that could be associated with PFAS use:
  - Requiring an inventory of products/chemicals used.
  - If PFAS used or suspected present, requiring screening of 2 representative grab samples.
    - So far, most facilities have confirmed they are not using PFAS.



## Water Permitting & Enforcement Division (2)

- Instances of known PFAS: Conservatively requiring treatment to Non-Detect prior to discharge to surface water or POTW
  - Modified EPA Method 537.1/Isotope Dilution/DoD QSM Table B-15 for groundwater remediation wastewaters
  - Draft EPA Method 1633 for industrial wastewater discharges
  - Not regulating "J" values



This Photo by Unknown Author is licensed under <u>CC BY</u>



# **PFAS Release Reporting**

- Old Requirements: <u>Report all PFAS releases</u>, including AFFF.
- New Release Reporting Regulations: PFAS included.

#### Report a release of <u>any quantity</u> of <u>liquid</u> containing PFAS in <u>any amount</u>.

<u>Sec. 22a-450-2(b)(1)(K)</u> Releases Subject to Reporting.

(b) A Reportable Material Other than Oil or Petroleum. A person required to report a release, shall report the release of a reportable material, other than oil or petroleum, specified in this subsection.

(1)The release of any quantity of a reportable material, other than oil or petroleum, if: (K)The release contains per- or polyfluoroalkyl substances, commonly referred to as PFAS, in liquid form, and includes, but is not limited to, chemicals commonly referred to as PFOS, PFOA, PFNA, PFHpA, and PFHxS.



# NEXT STEPS FOR DEEP

# AMBIENT WATER QUALITY & SURFACE WATER PROTECTION CRITERIA

Remediation Standard	APS Criterion*
Residential Direct Exposure Criterion	1.35 mg/kg
Industrial/Commercial Direct Exposure Criterion	41 mg/kg
GA Pollutant Mobility Criterion	1.4 µg/kg
GB Pollutant Mobility Criterion	14 µg/kg
Groundwater Protection Criterion (Adopts DPH Drinking Water Action Level)	70 ng/L
Surface Water Protection Criterion	In Development

\*Applies to  $\sum$  [PFOA, PFOS, PFHxS, PFNA, PFHpA]

FOCUSED PRIVATE WELL SAMPLING IN HIGH-RISK AREAS

LANDFILL MONITORING

#### SUPPLEMENTAL BID FOR PFAS LAB ANALYSIS

- To include additional matrices and methods



# **QUESTIONS?**

DEEP PFAS Webpage PFAS Task Force Webpage CT PFAS Action Plan

**Contact Information:** 

Raymond.Frigon@ct.gov Shannon.Pociu@ct.gov





## **Remediation Roundtable**



E-mail: <u>DEEP.remediationroundtable@ct.gov</u> Web: <u>www.ct.gov/deep/remediationroundtable</u>

Connecticut Department of Energy and Environmental Protection: Remediation Division



# Remediation Roundtable Next meeting June 21, 2022