

Public Discussion Draft
RSR Wave 2 - Potential Institutional Control Changes
to RSRs and EUR Regulations
November 14, 2013

The Department of Energy and Environmental Protection is developing “public discussion drafts” of ideas for potential future amendment to DEEP regulations, or new provisions for regulations, to address remediation of releases and sites where hazardous substances or oil have been released. Many of the subject matters for these drafts grew out of the Cleanup Transformation workgroup recommendations from November 2012. The purpose of the public discussion drafts is to provide more detail to the concepts set forth in the November 2012 Workgroup reports and the February 2013 Cleanup Transformation draft report. As a discussion draft, the language is not structured to read exactly as regulation language would, and does not attempt to propose section and subsection outline format. Also, this discussion draft is not a public hearing draft of a proposed regulation; DEEP will further shape and refine the discussion draft after considering public feedback, before proposing any formal proposed regulation for amendment/adoption and before initiating the formal regulation adoption process.

Purpose:

Currently, Environmental Land Use Restrictions (ELURs) are the only institutional control allowed to permit use of some of many advantageous cleanup approaches. The purpose of this proposal is to present ideas for tools for the long-term management of residual pollution in cases where the risks from the pollution are low and the control measures are simple through alternative and more easily-implemented Institutional Controls (ICs). Having additional types of ICs that are self-implementing and certified by a LEP will provide the flexibility needed to implement a simpler, yet effective, environmental control for lower risk situations. This will promote more efficient, streamlined and result-oriented cleanups.

Description of Proposed Environmental Use Restrictions

Please note important differences in terms. An “Environmental Use Restriction” (EUR) is a general umbrella term, under which are the specific ICs of a deed restriction (ELUR), and deed notice (**Notice of Activity and Use Limitation**), and a **Registry**. A summary of each of these types of EURs is provided below, and the circumstances where each of these types of EURs may be applicable is described in the attached table *Draft Public Discussion Summary of Potential Changes to Environmental Use Restrictions (EURs)*.

Environmental Land Use Restriction

The purpose of an ELUR is to minimize the risk of human exposure to pollutants and hazards to the environment by imposing certain restrictions upon the use, occupancy, and activities of and at the Property subject to the ELUR. An ELUR is a tool which permits the remedial goals for a Property to be dependent on the exposure risk associated with its use.

Only the current owner of the Property is able to record an ELUR on the municipal land records. An ELUR is a conveyance of a Property interest from the owner (“Grantor”) to the Commissioner (“Grantee”). The documents and details required are similar to those required in other types of real estate transactions. ELURs can be very difficult for the responsible party to prepare and for DEEP to approve because of the complexity of legal documents and the statutory requirement that all interests in the land, which are affected by the ELUR, be subordinated to the ELUR.

ELURs are important, however, because they are used to limit human exposure to pollutants by prohibiting specific activities at a parcel. In most cases, this is an easement granted by the property owner to the State with subordination of the existing interests in the land which are affected by the ELUR, subject to approval by the State, and that runs with the land in perpetuity as long as contamination remains which exceeds the default criteria in the RSRs. These measures are designed to promote awareness of the restriction for future owners and prevent exposure to pollution. In addition, an ELUR has clear enforcement authorities.

Deed Notice

Provisions for Notice of Activity and Use Limitations (Deed Notice) are included in Section 33 of Public Act 13-308 which amended Section 22a-133o of the Connecticut General Statutes. Regulations need to be amended, and some new regulatory provisions created, before this tool can be used.

A Deed Notice would be an informational document filed in public land records that could alert anyone searching the records to important information about contamination on the property, as well as activities and uses compatible/incompatible with such conditions. Advantages of a Deed Notice would be that it could be self-implementing by a responsible party under a verification by an LEP, thus making it a quicker and less costly IC to create. It is enforceable through the terms of the statute.

Registry

For certain conditions and circumstances registration only is recommended as a type of IC (no requirement for an ELUR or Deed Notice). The conditions and circumstances where only registration is recommended are for Monitored Natural Attenuation Class C Cleanups and publically owned roads. An option for Registration is included for Technical Impracticability Variances if an ELUR or Notice cannot be recorded despite best efforts. These recommendations are described in more detail in the attached table, Draft *Public Discussion Summary of Potential Changes to Environmental Use Restrictions (EURs)*. Registration would be completed by using a form prescribed by the Commissioner to efficiently supply necessary and pertinent information.

A list of all registrations would be maintained on a Registry of all EURs¹ (ELUR, Deed Notice and Registrations) maintained by DEEP that would be an internet-based, geographic information system (GIS) to communicate detailed information about properties which:

¹ In addition, DEEP may also include on the Registry information from verifications and reports covering information about a site, status of cleanup, and final disposition. DEEP welcomes ideas from the public regarding other types of information which should be included on the Registry.

- are in the process of being cleaned up, or
- have been fully cleaned up, but utilized certain provisions of the RSRs where enhanced communication is needed to inform the public about the nature of the clean up and site conditions.

Consistency with Federal Regulations

Polychlorinated biphenyls (PCBs) are regulated at 40 Code of Federal Regulations part 761 pursuant to the Toxic Substances Control Act (TSCA) of 1976 which is not delegated to the states. The Wave 2 Revisions must be consistent with the requirements of TSCA. Requirements regarding types of activity (industrial, commercial and residential), low and high occupancy areas, and numeric criteria must be complied with where PCBs are present.

**Draft Public Discussion Summary Table of Potential Changes to
Environmental Use Restrictions (EURs)**

Item Number	Type of Change	RSR Provisions	Current type of EUR (see notes below)	Future Types of EUR (see notes below)	Description	Purpose(s)	Revisions to RSRs
Soil, Groundwater and Soil Vapor							
1	Allow for use of a Notice of Activity and Use Limitation (Notice)	Industrial/Commercial (I/C) Direct Exposure Criteria	Environmental Land Use Restriction (ELUR)	ELUR	Limit activity to industrial/commercial activity	Allow for remediation to the industrial/commercial criteria	Include provisions for use of a Notice which is consistent with Public Act 13-308 Section 33 which requires that: <ul style="list-style-type: none"> the property be zoned for industrial or commercial use and is not used for any residential use, and no holder of an interest or occupant in the property has a right of residential use.
		I/C Groundwater Volatilization Criteria		NOTICE			
Direct Exposure Criteria - Soil							
2	New RSR Provision and EURs	Recreational Direct Exposure Criteria	NONE	ELUR	Residential direct exposure criteria may be overly protective in recreational scenarios.	Allow for remediation to the proposed Recreational Direct Exposure Criteria (DEC)	Include provisions for a Recreational Activity DEC with appropriate restrictions for use.
				NOTICE			
3	New RSR Provision and EURs	Trespasser Direct Exposure Criteria	NONE	ELUR	Residential direct exposure criteria may be overly protective in trespasser scenarios.	Allow for remediation to the proposed Trespasser DEC where the only exposure will be to trespasser frequency level of exposure.	Include provisions for a Trespasser DEC with appropriate restrictions for use.
				NOTICE			
4	New RSR Provision and EURs	Alternative Direct Exposure Criteria	NONE	ELUR	The RSRs include provisions for calculation of a site specific Alternative DEC, but do not include requirements to ensure that any exposure assumptions which are used to develop the Alternative DEC are maintained.	Protect human health by ensuring that the conditions used to develop the Alternative DEC are maintained.	Include provisions for an ELUR and a Notice which includes provisions to ensure that any exposure assumptions which are used to develop the Alternative DEC are maintained through an EUR Communication Plan, inspection and reporting.
				NOTICE			
5	New RSR Provision and EURs	Direct Exposure Criteria for Polychlorinated Biphenyls (PCBs)	NONE	ELUR	The RSRs allow for outdoor electrical substation or other restricted access locations to be remediated to the Industrial/Commercial Direct Exposure Criteria.	Protect human health by ensuring that location of the release remains an outdoor electrical substation or other restricted access location defined in 40 Code of Federal Regulations Part 761.123.	Include provisions in the RSRs for an ELUR and a Notice to ensure that the location of the release remains an outdoor electrical substation or other restricted access location as defined in 40 Code of Federal Regulations Part 761.123.
				NOTICE			

KEY: ELUR - Grant of Environmental Land Use Restriction and Grant of Easement Commissioner Approved or LEP approved for properties sites enrolled in voluntary cleanup program 22a-133y of the Connecticut General Statutes
 Notice - Notice of Activity and Use Limitation Commissioner or LEP approved Regulations need to be promulgated to utilize Notices.
 Registry - A list that would be maintained by DEEP which includes GIS based which provides detailed site information. This list would also include a summary of all ELURs and Notices.

Polychlorinated biphenyls (PCBs) are regulated pursuant to the Toxic Substances Control Act of 1976 contained in 40 Code of Federal Regulations 761 (TSCA) which is not delegated to the State. The Wave 2 Revisions must be cognizant of, and consistent with, the requirements of TSCA.

Item Number	Type of Change	RSR Provisions	Current type of EUR (see notes below)	Future Types of EUR (see notes below)	Description	Purpose(s)	Revisions to RSRs
Inaccessible Soil							
6	Allow for use of a Notice	Inaccessible Soil	ELUR	ELUR	The RSRs include provisions for rendering polluted soil which exceeds the applicable DEC inaccessible.	Protect human health by prohibiting the exposure of inaccessible soil	<p>Include provisions for use of a Notice. PA 13-308 Section 33 allows for use of a Notice if the concentrations of pollutants in the inaccessible soil do not exceed ten times the applicable direct exposure criteria.</p> <p>The ELUR and Notice would include provisions for:</p> <ul style="list-style-type: none"> the maintenance of the material used to render fill inaccessible through the implementation of a maintenance, monitoring and communication plan, and periodic inspection and reporting to DEEP by an LEP or PE.
				NOTICE			
7	Allow for Limited Exposure of Inaccessible Soil	Inaccessible Soil	NONE	ELUR	Currently, a release from ELUR is required to expose inaccessible soil. Allow controlled, limited exposure of inaccessible soil with LEP oversight and a soil management plan.	Provides flexibility for activities which involve the exposure of inaccessible soil while protecting human health.	<p>Include provisions when using an ELUR or Notice to allow for controlled, limited exposure of inaccessible soil if certain conditions are met. These conditions would include:</p> <ul style="list-style-type: none"> implementation of a soil management plan, limited duration and exposure of inaccessible soil (for example, volume or square footage for a minimal amount of time), oversight by a LEP, restoration of the location of the disturbance to the original condition (method of complying with the RSRs did not change) and condition which satisfies the ELUR/Notice, method of rendering soil inaccessible does not change, controlled access to work area with signage and limited access, dust control and work area cleanup, a communication program (written plan including signs), and provisions for unforeseen circumstances (for example, if other contamination that is found).
				NOTICE			
8	New RSR Provision and EURs	Inaccessible Soil – PCBs Locations of Transformers and Other Restricted Access Locations	NONE	ELUR	The RSRs include clean up criteria for inaccessible soil containing PCBs at other restricted access locations, outdoor electrical substations, and outdoor electrical substations where a label or notice has been posted in accordance with TSCA but do not include requirement for an EUR to ensure that these conditions are maintained.	Protect human health by ensuring that location of the release remains another restricted access location, or outdoor electrical substation, and that any notice or label remains posted.	<p>Include provisions for use of an ELUR or Notice to ensure that the location of the release remains another restricted access location, or outdoor electrical substation, as defined in 40 Code of Federal Regulations Part 761.123, and that any notice or label remains readable.</p>
				NOTICE			

Item Number	Type of Change	RSR Provisions	Current type of EUR (see notes below)	Future Types of EUR (see notes below)	Description	Purpose(s)	Revisions to RSRs
Environmentally Isolated Soil							
9	Allow for use of a Notice	Environmentally Isolated Soil	ELUR	ELUR	Render soil environmentally isolated	Protection of groundwater quality	<p>Include provisions for use of a Notice. PA 13-308 Section 33 allows for use of a Notice if:</p> <ul style="list-style-type: none"> the pollutant concentrations in the environmentally isolated soil do not exceed ten times the applicable direct exposure and pollutant mobility criteria, or the total volume of soil that is environmentally isolated that exceeds ten times the applicable direct exposure and pollutant mobility criteria is less than or equal to 10 cubic yards.
				NOTICE			
10	Allow for demolition of the building or permanent structure used to render soil environmentally isolated	Environmentally Isolated Soil	ELUR	ELUR	Allow for demolition of the building or permanent structure used to render soil environmentally isolated with remediation, LEP oversight, a soil management plan, and post remediation groundwater monitoring.	Provides flexibility while protecting groundwater quality	<p>Include provisions when using an ELUR or Notice to allow for demolition of the building or permanent structure used to render soil environmentally isolated if certain conditions are met. These conditions include:</p> <ul style="list-style-type: none"> implementation of a remedial action and soil management plans, post remediation groundwater monitoring, limited duration and exposure of environmentally soil (for example, volume or square footage), oversight by a LEP, restoration of the location of the disturbance to a condition which complies with the RSRs, controlled access to work area, dust control and work area cleanup, a communication program (written plan including signs), provisions for unforeseen circumstances (for example, if other contamination that is found) and, if needed, recordation of a new or amended ELUR or Notice which reflects the site conditions and method of compliance with the RSRs or a release from the release from the ELUR or Notice, if such ELUR or Notice is no longer needed for compliance with the RSRs.
				NOTICE			
11	New RSR Provision and EURs	Environmentally Isolated Soil beneath a concrete slab immediately adjacent to a building	NONE	ELUR	Render soil environmentally isolated beneath a concrete slab which is located directly adjacent to a building.	Protection of groundwater quality	<p>Include provisions for use of an ELUR or Notice when:</p> <ul style="list-style-type: none"> the pollutant concentrations in the environmentally isolated soil do not exceed ten times the applicable direct exposure and pollutant mobility criteria, or the total volume of soil that is environmentally isolated that exceeds ten times the applicable direct exposure and pollutant mobility criteria is less than or equal to ten cubic yards and groundwater is not used for domestic purposes. <p>The ELUR and Notice would include provisions for:</p> <ul style="list-style-type: none"> the maintenance of the asphalt or concrete used to render soil inaccessible through the implementation of a maintenance and communication plan, and regular inspection and reporting to DEEP by LEP or PE.
				NOTICE			

Item Number	Type of Change	RSR Provisions	Current type of EUR (see notes below)	Future Types of EUR (see notes below)	Description	Purpose(s)	Revisions to RSRs
Engineered Controls							
12	New requirements for inspection and reporting.	Engineered Control Variance - Pollutant Mobility Criteria and Direct Exposure Criteria	ELUR	ELUR	Engineered Control for direct exposure criteria and pollutant mobility	Prohibit disturbance of the engineered control and underlying polluted soil or water infiltration through soil in order to protect human health and groundwater quality.	<p>Include provisions for use of an ELUR.</p> <p>Include requirements for inspection and reporting.</p>
13	Allow for use of a Notice New requirements for inspection and reporting.	Engineered Control Variance - Direct Exposure Criteria	ELUR	ELUR	Engineered Control for direct exposure criteria only	Prevent disturbance of the engineered control and underlying polluted soil to protect human health	<p>Include provisions for use of an ELUR or Notice. PA 13-308 Section 33 allows for use of a Notice if the concentration of pollutants does not exceed ten times the applicable direct exposure criteria.</p> <p>Include requirements for inspection and reporting.</p>
				NOTICE			
Volatilization Criteria							
14	Allow for use of a Notice	Groundwater Volatilization Criteria – Exception if No Building Exists	ELUR	ELUR	Prohibits building construction where a groundwater plume contains volatile organic substances at concentrations greater than the applicable volatilization criteria at a location where no building exists.	Protection of human health	Include provisions for use of an ELUR or Notice.
				NOTICE			
15	New RSR Provision – allow for construction of a building if vapor control measures are used	Groundwater Volatilization Criteria – Exception if No Building Exists	ELUR	ELUR	Prohibits building construction where a groundwater plume contains volatile organic substances at concentrations greater than the applicable volatilization criteria at a location where no building exists.	Providing flexibility while protecting human health	<p>Include provisions for use of an ELUR or Notice which allows for the construction of a building if vapor control measures are used and requires:</p> <ul style="list-style-type: none"> the operation and maintenance of the vapor control measures through the implementation of an operation, maintenance and communication plan, and periodic inspection of the vapor control measures and reporting to DEEP by an LEP or PE.
				NOTICE	The RSRs allow for the use of vapor control measures to mitigate exceedances of the groundwater or soil vapor volatilization criteria.		
16	New RSR Provision and EURs	Volatilization Criteria – Ensure Operation of Vapor Control Measures	NONE	ELUR	The RSRs allow for the use of vapor control measures to mitigate exceedances of the groundwater or soil vapor volatilization criteria. The RSRs do not include provisions to ensure that the vapor control measures remain operational and effective over time, and to communicate to the presence of such measures to the occupants of buildings.	Protection of human health by ensuring that vapor control measures remain operational.	<p>Include provisions for use of an ELUR or Notice which requires:</p> <ul style="list-style-type: none"> the operation and maintenance of the vapor control measures through the implementation of an operation, maintenance and communication plan, periodic inspection of the vapor control measures and reporting to DEEP by an LEP or PE and prohibits building demolition and construction of additions unless vapor measures are used (see Item 15).
				NOTICE			
17	New RSR Provision and EURs	Volatilization Criteria – Exemption for Parking Garages	NONE	ELUR	Allow for an exemption from the volatilization criteria for sub grade parking garages with active ventilation or for parking garages which are open to the atmosphere.	Protection of human health	<p>Include provisions for use of an ELUR or Notice which includes provisions which prohibit the modification of the floor plan of an on-grade or sub-grade parking garage into smaller rooms or conditions which prevent air exchange and require:</p> <ul style="list-style-type: none"> the operation and maintenance of the vapor control measures through the implementation of an operation, maintenance and communication plan, and periodic inspection and reporting to DEEP by an LEP or PE.
				NOTICE			

Item Number	Type of Change	RSR Provisions	Current type of EUR (see notes below)	Future Types of EUR (see notes below)	Description	Purpose(s)	Revisions to RSRs
Groundwater							
18	New RSR Provision and Option for use of a Registry	Technical Impracticability Variance (Wide Spread – multiple properties)	ELUR	ELUR	An ELUR is required if a Technical Impracticability Variance (TI Variance) is granted from the Groundwater Protection Criteria. The RSRs do not include a requirement for an ELUR when the TI Variance includes only waivers from the Surface Water Protection Criteria and Volatilization Criteria.	Protect human health and the environment. Prohibit activities that could alter a stable, persistent area of groundwater contamination.	<p>Include provisions for an ELUR when a TI Impracticability Variance includes waivers from the Surface Water Protection and Volatilization Criteria. Expand the existing ELUR provisions to also include prohibition activities that could alter a stable, persistent area of groundwater contamination which would include the:</p> <ul style="list-style-type: none"> • installation of wells, and • extraction of groundwater for any purpose except for groundwater monitoring conducted pursuant to a plan approved by the Commissioner or a LEP. For situations where groundwater is used, the ELUR: <ul style="list-style-type: none"> ○ will prohibit the extraction of groundwater without necessary treatment, ○ require the implementation of an operation, maintenance and communication plan for the treatment system, and ○ require that operation, maintenance and inspection reports for the treatment system be prepared by a LEP or PE be submitted to DEEP on a periodic basis. <p>For situations where the ELUR cannot be recorded despite best efforts, include an option for use of a Registry to communicate TI specific information. Need to include any other recommendations from the TI workgroup.</p>
				Registry if ELUR cannot be recorded at offsite properties despite best efforts			
19	New RSR Provision and EURs	Technical Impracticability Variance (Localized – one property)	NONE	ELUR	<p>The RSRs do not include less cumbersome version of a TI for situations when the groundwater plume is completely on the property owned by the responsible party, and certain plume conditions are met including:</p> <ul style="list-style-type: none"> • diminishing state, • does not cross the property line, • does not interfere with any existing or planned future use of groundwater, and • concentrations of the contaminant are less than 10x the applicable criteria. 	Protect human health and the environment. Prohibit activities that could alter a stable, persistent area of groundwater contamination.	<p>Include provisions for a Notice for which will prohibit the:</p> <ul style="list-style-type: none"> • installation of wells, and • extraction of groundwater for any purpose except for groundwater monitoring conducted pursuant to a plan approved by the Commissioner or a LEP. For situations where groundwater is used, the ELUR: <ul style="list-style-type: none"> ○ will prohibit the extraction of groundwater without necessary treatment, ○ require the implementation of an operation, maintenance and communication plan for the treatment system, and ○ require that operation, maintenance and inspection reports for the treatment system be prepared by a LEP or PE be submitted to DEEP on a periodic basis. <p>For situations where the ELUR or Notice cannot be recorded despite best efforts, include an option for use of a Registry to communicate TI specific information. Need to include any other recommendations from the TI workgroup.</p>
				NOTICE			
				Registry if ELUR or Notice cannot be recorded despite best efforts			
20	New RSR Provision and EUR	Monitored Natural Attenuation Class C Cleanup	NONE	Registry	For situations when Monitored Natural Attenuation is working and certain conditions are met.	Protect human health	Include an option for use of a Registry to communicate information regarding the groundwater plume(s).

Item Number	Type of Change	RSR Provisions	Current type of EUR (see notes below)	Future Types of EUR (see notes below)	Description	Purpose(s)	Revisions to RSRs
Miscellaneous							
21	New RSR Provision and EUR	Publically Owned Roads	NONE	Registry	For situations where releases are located underlying publically owned roads and sidewalks where no buildings are present at concentrations greater than the applicable Residential Direct Exposure Criteria, Pollutant Mobility Criteria, Groundwater Protection Criteria, and Volatilization Criteria.	Protect human health	Include an option for use of a Registry to communicate site specific information on the presence of pollution and the Department's expectations regarding the implementation of the Utility Policy.
22	Clarification of Definitions	Inaccessible Soil	NONE	NONE	The RSRs currently require an ELUR which prohibit the "exposure" of inaccessible soil.	Clarification of language used in RSRs.	The RSRs should be revised to: <ul style="list-style-type: none"> prohibit the "exposure" and "disturbance" of inaccessible soil, and define the term "accessible soil".