

**Summary of Proposed Solid Waste Regulatory Revisions November 2008**

- ***Clean Fill [used per 22a-209d-1]***
  - Natural Soil
  - Soil, sediments, rock, stone
    - From quarries, banks, borrow pits, etc.
    - From households
- ***Conditional Fill [may be reused per 22a-209d-1]***
  - Soil below GA PMC and Res DEC for general use
  - Soil below approximately 50% of RSR criteria for sensitive receptors
    - if reused at schools, residential property, if on-site supply well, etc.
- ***Regulated fill [may be reused or recycled per 22a-209-18]***
  - Excavated soil and freshwater sediments above GA PMC and Residential DEC
  - Dredged marine sediments
  - Used brick, concrete, ceramics
  - Used asphalt
  - Street sweeps
- ***Conditionally Exempt Solid Waste [if used per 22a-209d-1]***
  - Clean Fill
  - Clean brick, concrete, ceramics reused directly in construction or grading
  - Reclaimed asphalt directly reused as asphalt
- ***Special Wastes [Solid Waste]***
  - Any of the above materials when **discarded instead of reused**
  - Other solid wastes identified in the definition of “special wastes”

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**Statement of Purpose**

**Proposed Revisions to Solid Waste Management Regulations**

**PURPOSE**

The purpose of the proposal is to amend the Solid Waste Management Regulations, sections 22a-208a-1(a), 22a -209-1, and 22a-209-3 of the Regulations of Connecticut State Agencies (“RCSA”), and to adopt two new sections: 22a-209-18 and 22a-209d-1. These amended and new regulations will:

- clarify the requirements in the regulations,
- update and simplify terminology,
- specify how certain categories of contaminated soil and sediments are properly managed, and
- identify how contaminated soil, dredged sediments, asphalt, brick, and concrete are properly reused and recycled.

The value of this regulatory revision lies in the:

- streamlining of materials management,
- increased clarity of how regulated materials are properly managed,
- reduced financial and environmental costs associated with avoiding disposal, and
- enhanced reuse and recycling opportunities that advance the state's Solid Waste Management Plan and Climate Change Action Plan.

#### **SUMMARY OF MAIN PROVISIONS**

Amendments to sections 22a-208a-1 and 22a-209-1 update definitions, including "Special Wastes" and "Clean Fill," identify new definitions for terms including "Conditional Fill" and "Regulated Fill," and update punctuation and citation references.

Two amendments are proposed to section 22a-209-3. One amendment is a stylistic change that updates the language to identify the actual effective date of the regulations (February 21, 1985) instead of using the phrase "the effective date of these regulations." The second amendment is a deletion of the previous exemption from permitting for clean fill because the exemption for managing clean fill differently from solid waste is now provided for in new section 22a-209d-1.

Proposed section 22a-209-18 specifies how certain materials that meet the definition of "regulated fill" shall be managed. Proposed section 22a-209d-1 exempts "clean fill" from being considered solid waste under section 22a-207 or subject to a permit under chapters 446d or 446k of the Connecticut General Statutes, provided certain conditions have been met.

#### **LEGAL EFFECTS**

These amendments and draft regulations were designed to be implemented in conjunction with proposed amendments for the Remediation Standard Regulations, or "RSRs," sections 22a-133k-1 through 22a-133k-3, inclusive, of the RCSA, and are therefore being brought to public notice and comment concurrently. References in these proposed regulations to definitions and chemical concentration levels identified in the RSRs are intended to be the same as those defined in the RSRs and will change if and when the RSRs are revised in the future.

#### **NEED FOR THE REGULATORY REVISION**

The focus of activity at contaminated properties has shifted over the last two decades. These changes have highlighted the need to simplify the handling of contaminated environmental media generated from the remediation of contaminated sites ("contaminated media") and to reduce treatment, transportation, and disposal costs. These solid waste management regulation revisions provide that simplified infrastructure to support remediation activities by specifying how certain remediation wastes are managed and providing beneficial use opportunities as an alternative to disposal.

This regulatory revision is part of a broader effort by the Department of Environmental Protection to streamline the handling of certain waste streams that are problematic when mismanaged. Such materials include contaminated soil, contaminated dredged sediments, and used asphalt, brick and concrete rubble. The regulated community manages these materials in an uneven manner, and the goal of this revision is to help level the playing field so that there is a broader understanding how to properly manage these materials when they are discarded and to provide regulatory incentives to encourage their reuse.

Additionally, the environmental costs of landfilling marginally contaminated [i.e., non-hazardous] environmental media are increasing as the distance by which materials must be transported increases. Within the next few years, Connecticut will likely be left with only one landfill that routinely will receive contaminated soil for reuse as cover material or for disposal. This means that soil will need to be hauled for increasingly greater distances, with the associated increases in greenhouse gas emissions, costs to businesses, and traffic risks. The state can instead choose to expand opportunities for in-state reuse and recycling of materials that can serve beneficial purposes.

#### **BENEFICIAL USE FRAMEWORK**

The proposed revisions create important opportunities for reusing materials that may be reusable, provided any contamination matches the intended reuse. For example, soils contaminated at low levels with asphalt constituents could be permitted for reuse in asphalt production or road construction. To permit this type of reuse, the department needs a clear definition of what types of material are regulated and the conditions under which materials can be reused. The threshold for distinguishing between “regulated fill” and “conditional fill” in the proposed regulations is generally the most stringent criteria in the Remediation Standard Regulations. A more stringent criteria is used if the conditional fill will be used at locations that are served by an on-site drinking water supply well or have a sensitive land use [residences, play grounds, schools, etc.]. The definition of regulated fill provides opportunities for the department to issue general permits for beneficially using a variety of wastes that may safely serve as an effective substitute for other materials, at a reduced cost to generators of those wastes, including towns, state agencies, and businesses. The definition of conditional fill provides an ability to allow soils that have some detectable level of contaminants present to be reused in a safe manner.

#### **POLICY EFFECTS**

The proposed revisions will provide a more level playing field for properties undergoing construction and properties undergoing remediation. The more predictable rules for managing excavated environmental media will provide a strong incentive to remediate contaminated sites to applicable levels established in the Remediation Standard Regulations. The incentive to remediate pollution stems from the resulting substantially reduced disposal and transportation costs for contaminated media that are more clearly available for being reused or recycled rather than disposed. This will provide strong motivation to initiate and accelerate remediation of contaminated sites without increasing risks to human health or the environment.

The regulatory revision will also provide managers of contaminated sites with greater certainty in characterizing the fate and projecting the cost of removing media from the site

after remediation. This predictability will enhance the Remediation Standard Regulations' usefulness in identifying cleanup endpoints.

The need for identifying opportunities for managing dredged sediments on the upland has increased because the options for in-water disposal are rapidly being reduced. These regulations therefore include dredged sediments in the definition of "regulated fill" to ensure that reuse and recycling opportunities are simplified for these materials, much of which are currently regulated as a type of special wastes known as "contaminated dredge spoils," a term proposed for elimination in this regulatory revision.

We expect that this regulatory revision will increase the demand for in-state reuse and recycling facilities for contaminated soil. While the capacity for disposal of contaminated soil continues to decline in Connecticut, expanding reuse and recycling opportunities will be enhanced with the framework the regulations establish.

## Solid Waste Management Regulations Revisions 2008

**Please note: This is an excerpt focusing on proposed edits (other than minor grammatical and citation updates).**

**Proposed deletions are in blue [brackets].**

**Proposed additions are in red *italics*.**

### **Section 22a-209-1. Definitions**

(NOTE: “Bulky waste” and “special waste” are also being updated in 22a-208a-1(a) to conform with edits below.)

*Terms used in sections 22a-209-1 to 22a-209-18, inclusive, of the regulations of Connecticut state agencies shall be defined as they are defined in section 22a-207 of the Connecticut general statutes. In addition, as used in sections 22a-209-1 to 22a-209-18, inclusive, of the regulations of Connecticut state agencies:*

(8) “Bulky waste” means landclearing debris and waste resulting directly from demolition activities [~~other than clean fill~~];[.]

#### (12) **“Clean fill” means:**

- (1) ~~natural soil~~
- (2) ~~rock, brick, ceramics, concrete, and asphalt paving fragments which are virtually inert and pose neither a pollution threat to ground or surface waters nor a fire hazard and~~
- (3) ~~polluted soil as defined in subdivision (45) of subsection (a) of Section 22a-133k-1 of the Regulations of Connecticut State Agencies which soil has been treated to reduce the concentration of pollutants to levels which do not exceed the applicable pollutant mobility criteria and direct exposure criteria established in Sections 22a-133k-1 through 22a-133k-3 of the Regulations of Connecticut State Agencies and which soil is reused in accordance with R.C.S.A. subdivision (3) of Subsection (h) of section 22a-133k-2 of such Regulations.]~~

#### (12) **“Clean fill” means:**

- (a) *Natural soil as defined in this section; or*
- (b) *Earthen materials consisting only of soils, stones or rocks, or a mixture or combination of such materials, which are:*
  - (i) *Raw materials excavated or extracted from a borrow pit, earthen bank, gravel bank, mine or quarry; or*
  - (ii) *Excavated from a single residential real property composed of four residential units or fewer and not affected by a release of petroleum products, oils, chemicals or by any other polluting substance;*

**(13) “Conditional fill” means any of the following or any mixture or combination of only the following - earthen material consisting only of soil, stones or rocks that have been excavated, or sediments dredged from fresh water - that:**

*(a) are known or may reasonably be expected to contain one or more substances at concentrations at or below:*

*(1) all of the Residential Direct Exposure Criteria included as Appendix 1 to this section which is excerpted from Appendix A to sections 22a-133k-1 to 22a-133k-3, inclusive, of the Regulations of Connecticut State Agencies; and*

*(2) all of the GA Pollutant Mobility Criteria included as Appendix 2 to this section which is excerpted from Appendix D to sections 22a-133k-1 to 22a-133k-3, inclusive, of the Regulations of Connecticut State Agencies;*

*(b) are used, reused or recycled as fill, including structural fill, or as a grading material; and*

*(c) are used in compliance with section 22a-209d-1 of the regulations of Connecticut state agencies;*

**(23) “Hazardous [Waste] waste” means any waste material which may pose a present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of or otherwise managed, including hazardous waste identified in accordance with [Section] section 3001 of the Resource Conservation and Recovery Act of 1976 (42 USC 6901 et seq.) or hazardous waste defined pursuant to regulations adopted under section 22a-449(c) of the Connecticut General Statutes;[.]**

**(32) “Natural Soil” means soil in which all substances naturally occurring therein are present in concentrations not exceeding the concentrations of such substance occurring naturally in the environment and in which soil no other substance is analytically detectable [For the purpose of this definition, substance shall have the same meaning as in Section 22a-133k-1 of the Regulations of Connecticut State Agencies];[.]**

**(41) “Regulated fill” means any one or a mixture of the following, which is or will be used, reused or recycled as fill, including as structural fill, or as a grading material:**

(A) *Earthen materials, other than clean fill, consisting only of soil, stones or rocks that have been excavated, or sediments dredged from fresh water, any of which are known or may reasonably be expected to contain one or more substances at concentrations **exceeding either:***

(1) *Any Residential Direct Exposure Criterion in Appendix 1 of this section which is excerpted from Appendix A to sections 22a-133k-1 to 22a-133k-3, inclusive, of the Regulations of Connecticut State Agencies; or*

(2) *Any GA Pollutant Mobility Criterion in Appendix 2 of this section which is excerpted from Appendix D to sections 22a-133k-1 to 22a-133k-3, inclusive, of the Regulations of Connecticut State Agencies;*

(B) *Sediments dredged from salt water;*

(C) *Used brick, ceramic or concrete, any of which are from construction, remodeling, repair or demolition operations or activities except when such materials are being or will be used, reused or recycled pursuant to section 22a-209d-1 of the Regulations of Connecticut State Agencies;*

(D) *Used asphalt or bituminous concrete except when any such materials are being or will be used, reused or recycled pursuant to section 22a-209d-1 of the Regulations of Connecticut State Agencies; or*

(E) *Sand, waste and other debris from **street sweeping** activities;*

**(46) “Sediment” means “sediment” as defined in section 22a-134 of the Connecticut General Statutes;**[note: this is the definition in the Property Transfer Act]

**(47) “Soil” means unconsolidated geologic material overlying bedrock, but not including sediment;** [note: this is the definition in the RSRs]

**(50) “Special wastes” means any of the following solid wastes or any mixture or combination of the following solid wastes, so long as [they] such wastes are not hazardous waste pursuant to section 22a- 115 of the Connecticut general statutes or radioactive material subject to section 22a-148 of the Connecticut general statutes:**

(A) *Earthen materials consisting only of soil, stones or rocks that have been excavated;*

(B) *Sediments or debris dredged from fresh water or salt water;*

*(C) Used brick, ceramic or concrete, any of which are from construction, remodeling or repair operations or activities and any of which are not being used, reused or recycled pursuant to sections 22a-209-18 or 22a-209d-1 of the Regulations of Connecticut State Agencies;*

*(D) Used asphalt or bituminous concrete, any of which are not being used, reused or recycled pursuant to sections 22a-209-18 or 22a-209d-1 of the Regulations of Connecticut State Agencies;*

*(E) Sand, waste and other debris from street sweeping activities;*

*(E) [(1)] water treatment, sewage treatment or industrial sludges, liquid, solids and contained gases; fly-ash, ash from the burning of wood or coal, [and] casting sands or slag; [and contaminated dredge spoils];*

*(F) [(2)] scrap tires;*

*(G) [(3)] bulky waste, as defined in this section;*

*(H) [(4)] asbestos;*

*(I) [(5)] residue;*

*(J) [and (6)] biomedical waste; [.]*

*(K) Catch basin cleanout wastes;*

*(L) Animal carcasses or plant materials quarantined by a state or federal agency authorized by law to establish quarantines; or*

*(M) Significant quantities of animal carcasses affected by disease, infestation or natural disaster;*

*(54) "Substance" means an element, compound or material which, when added to air, water, soil or sediment, may alter the physical, chemical, biological or other characteristic of such air, water, soil or sediment; [note: this is the definition in the RSRs]*

*["Transfer station" means a volume reduction plant, as defined by Section 22a-207 of the General Statutes, as amended, that is a central collection point for the solid waste generated within a municipality or group of municipalities, where solid wastes received are transferred to a vehicle for removal to another solid waste facility.]*

**Sec. 3.** Section 22a-209-3 of the Regulations of Connecticut State Agencies is amended to read as follows:

**Section 22a-209-3. Applicability**

These regulations apply to the operation and management of all existing and proposed solid waste facilities, and to all applications for a permit or contract approval which are submitted after or are in process on [the effective date of these regulations] *February 21, 1985*. [Areas which are solely for the disposal of clean fill shall be exempt from the provisions of these regulations.]

**Sec. 4.** The Regulations of Connecticut State Agencies is amended by adding section 22a-209-18 as follows:

***(NEW) Section 22a-209-18. REGULATED FILL USE, REUSE AND RECYCLING***

*(a) Regulated fill shall be managed only as provided for in this section.*

*(1) No person shall use, reuse or recycle regulated fill unless such fill:*

*(A) Is **used or reused beneficially** in compliance with a valid and effective written **authorization or permit** issued by the commissioner; or*

*(B) Is **recycled at a facility** in compliance with a valid and effective written **authorization or permit** issued by the commissioner to the owner or operator of any such recycling facility.*

*(2) No person shall accumulate or store regulated fill for longer than three years before using, reusing or recycling such fill. Any person accumulating or storing such fill shall prevent erosion of such fill by implementing and maintaining sedimentation and erosion control measures, including, but not limited to, dust control measures.*

*(3) Any person accumulating, storing, using, reusing or recycling regulated fill shall comply with all other applicable requirements regarding such fill.*

**Sec. 5.** *The Regulations of Connecticut State Agencies are amended by adding section 22a-209d-1 as follows:*

**(NEW) Section 22a-209d-1. *CONDITIONALLY EXEMPT SOLID WASTES***

**(a) DEFINITIONS.** *As used in section 22a-209d-1 of the Regulations of Connecticut State Agencies:*

**(1) “Clean fill” means:**

**(a) *Natural soil*** *as defined in section 22a-209-1 of the Regulations of Connecticut State Agencies; or*

**(b) *Earthen materials consisting only of soils, stones or rocks, or a mixture or combination of such materials, which are:***

- (i) *Raw materials excavated or extracted from a borrow pit, earthen bank, gravel bank, mine or quarry; or***
- (ii) *Excavated from a single residential real property composed of four residential units or fewer and not affected by a release of petroleum products, oils, chemicals or by any other polluting substance; and***

**(2) “Conditional fill” means any of the following or any mixture or combination of only the following - earthen material consisting only of soil, stones or rocks that have been excavated, or sediments dredged from fresh water - that:**

**(a) *are known or may reasonably be expected to contain one or more substances at concentrations at or below:***

- (i) *all of the Residential Direct Exposure Criteria included as Appendix 1 to this section which is excerpted from Appendix A to sections 22a-133k-1 to 22a-133k-3, inclusive, of the Regulations of Connecticut State Agencies; and***
- (ii) *all of the GA Pollutant Mobility Criteria included as Appendix 2 to this section which is excerpted from Appendix D to sections 22a-133k-1 to 22a-133k-3, inclusive, of the Regulations of Connecticut State Agencies.***

**(b) CATEGORIES AND REQUIREMENTS (for conditionally exempt solid wastes).**

***Provided the requirements of this section applicable to a material listed in the subdivisions to this subsection have been complied with, any such material shall not be considered a solid waste.***

***If the requirements of this section applicable to a material **have not been complied with**, any such material shall be a solid waste and shall be subject to all of the requirements applicable to the management of a solid waste.***

- (1) ***CLEAN FILL.*** No person shall use clean fill, except in a lawful manner or for any lawful purpose.
- (2) ***USED BRICK, CERAMIC, OR CONCRETE.*** Any person reusing or recycling used brick, ceramics or concrete, or any mixture of combination of only such materials shall:
- (A) *determine that such materials are:*
    - (i) *clearly **recognizable as containing only bricks, ceramics, or concrete;***
    - (ii) *visibly **free of oil, adhesives, stains, and paint;** and*
    - (iii) ***free of contaminants**, including, but not limited to, oils, paint, lead, mercury and PCBs, based on knowledge of the source of the material or on representative sampling and analyses of such material. The basis for compliance with this subclause shall be maintained, in writing, for three years by any person claiming that used brick, ceramics or concrete meets the requirements of this subclause. This three year period shall begin when it is first determined that any such material meets the requirements of this subclause; and*
  - (B) ***use, reuse or recycle such materials as a construction or grading material and not for any other purpose.***
- (3) ***RECLAIMED ASPHALT PAVEMENT.*** Any person reusing or recycling excavated bituminous concrete or asphalt pavement, including millings, shall ensure that:
- (A) *such concrete or pavement is reused as **bituminous concrete or asphalt pavement** or is recycled by being added as **an ingredient to asphalt mix;** and*
  - (b) *such material is used, reused or recycled within two years of its excavation.*

(4) **CONDITIONAL FILL.** Any person who generates, manages, accumulates, collects, stores, uses, reuses, recycles, sells, or offers for sale material claiming that it is conditional fill:

- (A) shall determine, **based upon knowledge of the material's source or based upon representative sampling and analyses** of such material, that all material claimed to be conditional fill meets the requirements of subsection (a)(2)(A)(i) and (ii) of this section [i.e., is below the Residential DEC and the GA PMC].  
Notwithstanding the foregoing, any person that places, deposits, uses, reuses or recycles material claimed to be conditional fill, at any property, as provided for in subparagraph (D)(i) or(ii) of this subdivision, shall determine that such material meets the requirements of subsection (a)(2)(A)(i) and (ii) of this section based only upon representative sampling and analyses of such material;
- (B) shall **maintain written records** regarding the basis for any determination made pursuant to subparagraph (a) of this subdivision. Such records shall include, but need not be limited to, a written description of the source of material claimed to be conditional fill or any written data from representative sampling and analyses of such material. Such records shall be kept for a minimum period of three years from the date of the excavation, transfer or sale of such fill material;
- (C) shall provide written documentation that material claimed to be conditional fill meets the requirements of this section, **if** within three years of excavation, storage, accumulation or placement of such fill, such documentation is **requested** by the commissioner, a regional or municipal land use official, or a property owner on which such fill material is accumulated, stored, placed, used, reused or recycled. Such **written documentation shall be provided** no later than seven business days from the date of such request; and
- (D) shall **use, reuse, or recycle such material as fill, including structural fill, or as a grading material only** and not for any other purpose, except that such person shall not place, deposit, use, reuse or recycle material claimed to be conditional fill at:

(i) any property that includes a residence, dwelling, twelfth grade or lower level school, day care center, playground, or outdoor recreational area **if such material contains any substance that exceeds any numeric criteria identified in Appendix 3 to this section** [note: approx. 50% of RSR Residential Direct Exposure criteria for inorganic substances]; **OR**

(ii) any property served by an on-site drinking water supply well **if such material contains any substance that exceeds any numeric criteria identified in Appendix 4 to this section** [note: approx. 50% of RSR soil criteria].

However, the additional requirements of subclauses (i) and (ii) of this subdivision shall not apply if the placement, use, reuse or recycling of material claimed to be conditional fill (1) is approved in writing by the commissioner, or

*(2) occurs at a **mixed-use development**. For purposes of this subdivision mixed-use development shall mean a development containing one or more multi-family or single family dwelling units or a twelfth grade or lower level school, day-care center, playground or outdoor recreational area and one or more commercial, public, institutional, retail, office or industrial uses.*

***(c) Additional requirements.***

*(1) No person shall accumulate or store materials listed in subdivisions (b)(2), (b)(3) and (b)(4) of this section: (A) for longer than three years before such materials are used, reused or recycled: and (B) unless such materials are accumulated or stored in a manner that prevents erosion through development, maintenance and implementation of sedimentation and erosion control measures, including, but not limited to, dust control measures.*

*(2) any period of record retention required under this section shall be extended automatically during the course of any unresolved enforcement action regarding any of the materials listed in subsection (b)(1) to (b)(4), inclusive, of this section or any location where such material was accumulated, stored, placed, used, reused or recycled.*