

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.

Section 1. Subdivisions (10) and (32) of subsection 22a-208a-1(a) of the Regulations of Connecticut State Agencies are amended to read as follows:

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

(32) “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;

(F) [(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];

(G) [(2)] scrap tires;

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

(I) [(4)] asbestos;

(J) [(5)] residue;

(K) [and (6)] biomedical waste; [.]

(L) CATCH BASIN CLEANOUT WASTES;

(M) ANIMAL CARCASSES OR PLANT MATERIALS QUARANTINED BY A STATE OR FEDERAL AGENCY AUTHORIZED BY LAW TO ESTABLISH QUARANTINES; OR

(N) SIGNIFICANT QUANTITIES OF ANIMAL CARCASSES AFFECTED BY DISEASE, INFESTATION OR NATURAL DISASTER.

Sec. 2. Section 22a-209-1 of the Regulations of Connecticut State Agencies is amended to read as follows:

Section 22a-209-1. Definitions

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:

(1) “AASHTO specification” means a standard of performance for buried structures set forth in “Standard Specifications for Transportation Materials,” published by the American Association of State Highway and Transportation Officials [in 1989, 14th edition].;

(2) “All weather access” means that affected roads or land surface can support operation of vehicles for the transportation of solid waste and vehicles for the maintenance of solid waste facilities under all normal climatic conditions, provided that snow is removed and flooding is precluded;[.]

(3) “Alter” MEANS [(1)] (A) when referring to a solid waste facility which has no permit, [means] to change the existing configuration or method of operation of the facility in any manner, including but not limited to adding to the volume of solid waste deposited at the facility; or [(2)] (B) when referring to a solid waste facility which holds a permit, [means] to change the approved configuration or method of operation of the facility in any manner, including but not limited to adding to the approved volume of solid waste deposited at the facility;[.]

(4) “Asbestos” means actinolite, amosite, antnophyllite, chrysotile, crocidolite, tremolite, or any material which contains the above, all or part of which is in a friable state;[.]

(5) “ASTM specification” means a standard for pipes or other construction materials set forth in “Annual Book of ASTM Standards,” published by the American Society of Testing Materials [in 1989].;

(6) “Base flood” means a flood that has a one percent or greater chance of recurring in any year or a flood of a magnitude equaled or exceeded once in 100 years on the average over a significantly long period. If the [Commissioner] COMMISSIONER deems it necessary for a particular location, the base flood shall represent a less common occurrence as specified by [him or her] the commissioner;[.]

(7) “Bird hazard” means an increase in the likelihood of bird/aircraft collisions that may cause damage to the aircraft or injury to its occupants;[.]

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

(9)“Cell construction method” means the spreading, compacting and daily covering of solid wastes through use of the area, ramp, or trench methods of landfilling;[.]

(10)“Certified operator” means the solid waste facility operator or an employee of [the] such operator who is present on site and oversees or carries out the daily operation of the facility, and whose qualifications are approved in accordance with [Section] SECTION 22a-209-6 of the Regulations of Connecticut State Agencies;[.]

(11)“Certified soil scientist” means a person who has been certified as a soil scientist by the Board of Directors of the Society of Soil Scientists of Southern New England;[.]

(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.]

(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;

(14) “Cover material” means soil, or other suitable material as approved by the [Commissioner] **COMMISSIONER**, which is used to cover compacted solid waste in a solid or special waste disposal area. Any soils used shall be classified as GM, silty gravels, poorly graded gravel-sand-silt mixtures; GC, clayey gravels, poorly graded gravel-sand-clay mixtures; SM, silty sands, poorly graded sand-silt mixtures; SC, clayey sands, poorly graded sand-clay mixtures; ML, inorganic silts and very fine sands, rock flour, silty or clayey fine sands with slight plasticity in accordance with the unified soil classification system;[.]

(15) “Dewater” means to subject material to a process that removes water;[.]

(16) “Dioxin sampling well” means a stainless steel ground water monitoring well installed within the area of predicted leachate plume from any portion of a solid waste facility at which residue is disposed;[.]

(17) “Facility plan” means the engineering studies and proposals to build, establish, alter, operate, monitor and close a solid waste facility, required by [Section] **SECTION** 22a-209-4(b)(2) of the Regulations of Connecticut State Agencies;[.]

(18) “Floodplain” means the lowland and relatively flat areas adjoining inland and coastal waters, including flood-prone areas of offshore islands, which are inundated by the base flood;[.]

(19) “Friable” means readily crumbled, pulverized or reduced to powder, when dry, by hand pressure;[.]

(20) “Geotextile” means a woven or nonwoven fabric or film which is utilized for the engineering management of soil and water;[.]

(21) “Groundwater” means water present in the zone of saturation;[.]

(22) “Groundwater monitoring well” means a dug, driven or drilled well used to determine groundwater elevation, direction of groundwater flow, or the quality of groundwater;[.]

(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;**[.]

(24) “Leachate” means that liquid which results from ground or surface water which has been in contact with solid waste and has extracted material, either dissolved or suspended, from the solid waste;[.]

(25) “Lift” means a horizontal layer of cells within a solid waste disposal area at which the cell construction method is utilized;[.]

(26) “Lower explosive limit” means the lowest percent by volume of gas which will propagate a flame in air at 25° C and atmospheric pressure;[.]

(27) “Maximum high water table” means the highest elevation reached by the upper level of the ground water as determined by an engineering evaluation conducted in accordance with test methods approved by the [Commissioner] COMMISSIONER;[.]

(28) “Monocell” means a variation of the cell construction method whereby only a single type of solid waste is disposed of in any individual cell;[.]

(29) “Mottling indicator” means a residual trace of reduced or oxidized iron left on soil strata as the result of fluctuations in groundwater elevation;[.]

(30) “Mulch” means a protective cover of organic material placed over soil to preserve soil moisture, prevent erosion, or promote the growth of plants;[.]

(31) “Municipal solid waste” means solid waste from residential, commercial, industrial and institutional sources, excluding solid waste consisting of significant quantities of hazardous waste as defined in Section 22a-115 of the CONNECTICUT General Statutes, landclearing debris, biomedical waste, sewage sludge and scrap metal;[.]

(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];[.]

(33) “New municipal solid waste disposal area” means a solid waste facility or expansion thereof, other than a vertical expansion, for the disposal of municipal solid waste, for which facility or expansion a completed application under [Sections] SECTIONS 22a-430 and 22a-208a of the CONNECTICUT General Statutes is received by the [Commissioner] COMMISSIONER after [the effective date of Section 22a-209-14 of the Regulations of Connecticut State Agencies] FEBRUARY 28, 1990;[.]

(34) “Open dump” means a site at which solid waste is disposed of in a manner which does not comply with Subtitle D of the Resource Conservation and Recovery Act of 1976,[.] (42 USC 6901 et seq.)[, as amended,] and regulations promulgated thereunder;[.]

(35) “Operator” means a person who is ultimately responsible for maintaining the solid waste facility in conformance with applicable statutes and regulations and the facility permits;[.]

(36) “Pan lysimeter” means a leachate collection device for sampling leachate from monocells within a solid waste disposal area;[.]

(37) “Person” means any individual, firm, partnership, association, syndicate, company, trust, corporation, LIMITED LIABILITY COMPANY, municipality, agency or political or administrative subdivision of the state, or other legal entity of any kind;[.]

(38) “Public airport” means an airport open to the public without prior permission and without restrictions within the physical capacities of available facilities;[.]

(39) “Recharge” means water which enters a geologic formation;[.]

(40) “Regional solid waste disposal area” means a solid waste disposal area used for the disposal of solid waste generated in more than one municipality;[.]

(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;

(42) “Residue” means bottom ash, air pollution control residue, and other residues from the combustion process at resource recovery facilities, municipal solid waste incinerators, and biomedical waste incinerators;[.]

(43) “Resources recovery facility” means a volume reduction plant, as defined by [Section] SECTION 22a-207 of the CONNECTICUT General Statutes, [as amended,] utilizing processes aimed at reclaiming the material or energy values from solid wastes;[.]

(44) “Rip-rap” means a loose assemblage of broken or whole stones utilized to dissipate the velocity and energy of moving water;[.]

(45) “Scarification” means the process of raking, harrowing or otherwise disturbing a soil surface to allow infiltration of water or other material;[.]

(46) “SEDIMENT” MEANS “SEDIMENT” AS DEFINED IN SECTION 22a-134 OF THE CONNECTICUT GENERAL STATUTES;

(47) “SOIL” MEANS UNCONSOLIDATED GEOLOGIC MATERIAL OVERLYING BEDROCK, BUT NOT INCLUDING SEDIMENT;

(48) “Solid waste boundary” means the outermost perimeter of the solid or special waste, (projected in the horizontal plane), as it would exist at completion of the permitted disposal activity at a solid waste or special waste disposal area;[.]

(49) “Special waste disposal area” means a solid waste disposal area at which special wastes, as defined in this section, are disposed of;[.]

(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;

(51) “Standard proctor density” means the maximum weight per unit volume of earthen material which has been compacted by a specific weight and procedure, at an optimum soil moisture, according to a laboratory engineering test developed by Proctor;[.]

(52) “State Solid Waste Management Plan” means the [State] STATE plan adopted pursuant to [Section] SECTION [22a-211] 22a-228 of the Connecticut General Statutes[, as amended];[.]

(53) “Stormwater” means precipitation runoff;[.]

(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;

[“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.]

(55) “Underdrainage” means a system of pipes, structures, stone, pumps, wells, or other devices utilized to lower or divert groundwater;[.]

(56) “Vector” means an insect or rodent or other animal (not human) which can transmit infectious diseases from one person or animal to another person or animal;[.]

(57) “Vertical expansion” means an expansion of an existing solid waste disposal area such that future disposal of municipal solid waste will take place only where solid waste has previously been disposed of and is still present;[.]

(58) “Washout” means the carrying away of solid waste by waters of the base flood;[.]

(59) “Water Quality Standards” means the water quality standards ADOPTED PURSUANT TO SECTION 22a-426 OF THE CONNECTICUT GENERAL STATUTES and water quality classifications map published by the Connecticut Department of Environmental Protection[, February, 1987];[.]

(60) “Water table” means that surface of a body of unconfined groundwater at which the pressure is equal to that of the atmosphere;[.]

(61) “Working face” means that portion of a solid waste or special waste disposal area where the waste is deposited, spread and compacted prior to the placement of cover material;[.] and

(62) “Zone of influence” means the area in which, assuming the absence of any means at a solid waste facility to collect or treat leachate, groundwater may be altered in quality due to discharge of leachate from any portion of such 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.** 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. 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; 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.

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 ~~TWO~~ 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.

(NEW) SECTIONS 22a-209-1 OF THE REGULATIONS OF CONNECTICUT STATE AGENCIES IS AMENDED BY ADDING APPENDIX 1 AS FOLLOWS:

Appendix 1
to Section 22a-209-1 of the Regulations of Connecticut State Agencies

All Values in mg/kg

Substance	CASRN	Residential Direct Exposure Criteria for Soil
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Volatile Substances

Acetone	67641	500.0
Acetonitrile	75058	115.2
Acrolein	107028	3.4
Acrylonitrile	107131	0.12
Benzene	71432	0.7
Bromodichloromethane	75274	1.1
Bromomethane	74839	33.9
2-Butanone	78933	500.0
n-Butylbenzene	104518	500.0
sec-Butylbenzene	135988	500.0
t-Butylbenzene	98066	500.0
Carbon disulfide	75150	500.0
Carbon Tetrachloride	56235	3.2
Chlorobenzene	108907	500.0
Chloroethane	75003	500.0
Chloroform	67663	67.7
Chloromethane	74873	176.1
2-Chloronaphthalene	91587	500.0
2-Chlorotoluene	95498	135.5
4-Chlorotoluene	106434	135.5
Cyclohexane	110827	500.0

Substance	CASRN	Residential Direct Exposure Criteria
Dibenzofuran	132649	270.0
1,2-Dichlorobenzene	95501	500.0
1,3-Dichlorobenzene	541731	67.7
1,4-Dichlorobenzene	106467	10.5
Dichlorodifluoromethane	75718	500.0
1,1-Dichloroethane	75343	500.0
1,2-Dichloroethane	107062	0.7
1,2-Dichloroethene	540590	500.0
1,1-Dichloroethylene	75354	338.7
cis-1,2-Dichloroethylene	156592	500.0
trans-1,2-Dichloroethylene	156605	500.0
1,2-Dichloropropane	78875	11.6
1,3-Dichloropropene	542756	0.7
Ethyl acetate	141786	500.0
Ethylbenzene	100414	500.0
Ethylene dibromide	106934	0.03
n-Hexane	110543	500.0
Isopropylbenzene	98828	500.0
4-Isopropyltoluene	99876	500.0
Methyl isobutyl ketone	108101	500.0
Methyl methacrylate	80626	500.0
Methyl tert butyl ether	1634044	500.0
Methylene chloride	75092	8.8
2-Methylnaphthalene	91576	271.0
Nitrobenzene	98953	33.9
2-Nitrophenol	88755	500.0
n-Propylbenzene	103651	500.0
Pyridine	110861	20.3

Substance	CASRN	Residential Direct Exposure Criteria
Styrene	100425	135.4
1,1,1,2-Tetrachloroethane	630206	2.5
1,1,2,2-Tetrachloroethane	79345	0.3
Tetrachloroethylene	27184	0.8
Tetrahydrofuran	109999	55.0
Toluene	108883	453.9
1,1,2-Trichloro-1,2,2-trifluoroethane	76131	500.0
1,2,4-Trichlorobenzene	120821	116.2
1,1,1-Trichloroethane	71556	500.0
1,1,2-Trichloroethane	79005	7.3
Trichloroethylene	79016	0.7
Trichlorofluoromethane	75694	500.0
1,2,4-Trimethylbenzene	95636	500.0
1,3,5-Trimethylbenzene	108678	500.0
Vinyl acetate	108054	500.0
Vinyl chloride	75014	0.1
Xylenes	1330207	500.0
<u>Semivolatile Substances</u>		
Acenaphthene	83329	1,000.0
Acenaphthylene	208968	1,000.0
Aniline	62533	73.4
Anthracene	120127	1,000.0
Benzidine	92875	0.2
Benzo(a)anthracene	56553	1.0
Benzo(a)pyrene	50328	1.0
Benzo(b)fluoranthene	205992	1.0
Benzo(g,h,i)perylene	191242	1,000.0

Substance	CASRN	Residential Direct Exposure Criteria
Benzo(k)fluoranthene	207089	8.4
Benzoic Acid	65850	1,000.0
Bis(2-chloroethyl)ether	111444	0.2
Bis(2-chloroisopropyl)ether	108601	6.0
Bis(2-ethylhexyl)phthalate	117817	30.0
Bromoform	75252	8.3
4-Bromophenyl-phenylether	101553	500.0
Butylbenzyl phthalate	85687	1,000.0
Carbazole	86748	3.3
4-Chloroaniline	106478	27.1
2-Chlorophenol	95578	338.7
4-Chlorophenyl-phenylether	7005723	500.0
Chrysene	218019	84,780.0
m-Cresol	108394	1,000.0
Dibenzo(a,h)anthracene	53703	1.0
1,2-Dibromo-3-chloropropane	96128	0.009
Dibromochloromethane	124481	0.8
3,3'-Dichlorobenzidine	91941	0.2
2,4-Dichlorophenol	120832	67.7
Diethyl phthalate	84662	1,000.0
Dimethyl phthalate	131113	1,000.0
2,4-Dimethylphenol	105679	1,000.0
Di-n-butyl-phthalate	84742	677.4
2,4-Dinitrophenol	51285	13.6
2-methyl-4,6-Dinitrophenol	534521	27.1
2,4-Dinitrotoluene	121142	0.2
2,6-Dinitrotoluene	606202	0.2
Di-n-octyl phthalate	117840	677.4

Substance	CASRN	Residential Direct Exposure Criteria
1,4-Dioxane	123911	203.2
1,2-Diphenylhydrazine	122667	0.2
Ethanol	64175	1,000.0
Ethylene glycol	107211	1,000.0
Fluoranthene	206440	1,000.0
Fluorene	86737	1,000.0
Formaldehyde	50000	1,000.0
Hexachlorobenzene	118741	0.3
Hexachlorobutadiene	87683	0.8
Hexachloroethane	67721	29.9
Indeno(1,2,3-c,d)pyrene	193395	1.0
Isophorone	78591	440.3
Isopropanol	67630	1,000.0
Methanol	67561	1,000.0
2-Methylphenol	95487	203.2
4-Methylphenol	106445	203.2
Naphthalene	91203	135.5
2-Nitroaniline	88744	20.9
3-Nitroaniline	99092	20.9
4-Nitroaniline	100016	20.9
N-Nitrosodimethylamine	2759	0.2
NitrosoDi-n-propylamine	621647	0.2
N-Nitrosodiphenylamine	86306	13.5
Pentachloronitrobenzene	82688	67.7
Pentachlorophenol	87865	0.6
Phenanthrene	85018	1,000.0
Phenol	108952	1,000.0

Substance	CASRN	Residential Direct Exposure Criteria
Propylene glycol	57556	1,000.0
Pyrene	129000	1,000.0
Tert-butyl alcohol	75650	1,000.0
1,2,4,5-Tetrachlorobenzene	95943	20.0
2,4,5-Trichlorophenol	95954	677.4
2,4,6-Trichlorophenol	88062	0.9

Total Petroleum Hydrocarbons

Total Petroleum Hydrocarbons by
EPH/VPH Analysis

Aliphatic Hydrocarbons C5-C8	500.0	1,000.0
Aliphatic Hydrocarbons C9-C12	500.0	1,000.0
Aliphatic Hydrocarbons C9-C18	500.0	1,000.0
Aliphatic Hydrocarbons C19-C36	1,000.0	2,500.0
Aromatic Hydrocarbons C9-C10	500.0	1,000.0
Aromatic Hydrocarbons C11-C22	500.0	1,000.0

Total Petroleum Hydrocarbons by EPA 500.0 2,500.0
Method 418.1 (This method shall not be
used for the analysis of samples collected after
September 1, 2009)

Total Petroleum Hydrocarbons by ETPH 500.0 2,500.0
Analysis

Substance	CASRN	Residential Direct Exposure Criteria
<u>Pesticides</u>		
Alachlor	15972608	7.5
Aldicarb	116063	67.7
Aldrin	309002	0.02
Atrazine	1912249	2.0
Chlordane	12789036	1.2
2,4-D	94757	67.7
4,4-DDD	72548	1.7
4,4-DDE	72559	1.2
4,4-DDT	50293	1.2
Dicamba	1918009	500.0
Dichloroprop	120365	243.9
Dieldrin	60571	0.03
Endosulfan	115297	13.6
Endosulfan I	19595596	13.6
Endosulfan II	19670156	13.6
Endosulfan sulfate	1031078	13.6
Endrin	72208	20.3
Endrin aldehyde	7421934	20.3
Endrin ketone	53494705	20.3
Heptachlor	76448	0.1
Heptachlor epoxide	1024573	0.05
alpha-Hexachlorocyclohexane	319846	0.07
beta-Hexachlorocyclohexane	319857	0.2
delta-Hexachlorocyclohexane	319868	0.2
Hexachlorocyclopentadiene	77474	406.5
Lindane	58899	0.4
Methoxychlor	72435	33.9

Substance	CASRN	Residential Direct Exposure Criteria
Simazine	122349	33.9
Toxaphene	8001352	0.1
<u>PCBs</u>		
Polychlorinated biphenyls	1336363	0.2
<u>Inorganic Substances</u>		
Aluminum	7429905	20,323.0
Ammonia	7664417	1,354.8
Antimony	7440360	271.0
Arsenic	7440382	10.0
Barium	7440393	13,548.4
Beryllium	7440417	13.6
Boron	7440428	13,548.0
Cadmium	7440439	1.4
Chlorine	7782505	6,774.2
Chromium, hexavalent	18540299	20.3
Chromium, trivalent	16065831	50,000.0
Cobalt	7440484	20.0
Copper	7440508	677.4
Cyanide	57125	1,354.8
Lead	7439921	400.0
Lithium	7439932	135.5
Manganese	7439965	4,741.9
Mercury	7487947	20.3
Nickel	7440020	45.0
Selenium	7782492	340.0
Silver	7440224	340.0
Thallium	7791120	5.4
Tin	7440315	203.2
Uranium	7440611	203.0
Vanadium	1314621	67.7
Zinc	7440666	20,322.6

Appendix 2
to Section 22a-209-1 of
the Regulations of Connecticut State Agencies

All Values in mg/kg unless otherwise noted

Substance	CASRN	GA Pollutant Mobility Criteria for soil
		(PMC)

Volatile Substances

Acetone	67641	20.0
Acetonitrile	75058	0.24
Acrolein	107028	0.2
Acrylonitrile	107131	0.005
Benzene	71432	0.02
Bromodichloromethane	75274	0.01
Bromomethane	74839	0.07
2-Butanone	78933	20.0
n-Butylbenzene	104518	1.2
sec-Butylbenzene	135988	1.2
t-Butylbenzene	98066	1.2
Carbon disulfide	75150	14.0
Carbon tetrachloride	56235	0.1
Chlorobenzene	108907	2.0
Chloroethane	75003	20.0
Chloroform	67663	0.12
Chloromethane	74873	0.36
2-Chloronaphthalene	91587	11.0
2-Chlorotoluene	95498	0.28
4-Chlorotoluene	106434	0.28
Cyclohexane	110827	20.0

Substance	CASRN	GA PMC
Dibenzofuran	132649	0.56
1,2-Dichlorobenzene	95501	12.0
1,3-Dichlorobenzene	541731	0.14
1,4-Dichlorobenzene	106467	1.5
Dichlorodifluoromethane	75718	2.0
1,1-Dichloroethane	75343	1.4
1,2-Dichloroethane	107062	0.02
1,2-Dichloroethene	540590	1.4
1,1-Dichloroethylene	75354	0.14
cis-1,2-Dichloroethylene	156592	1.4
trans-1,2-Dichloroethylene	156605	2.0
1,2-Dichloropropane	78875	0.1
1,3-Dichloropropene	542756	0.01
Ethyl acetate	141786	20.0
Ethylbenzene	100414	14.0
Ethylene dibromide	106934	0.005
n-Hexane	110543	1.6
Isopropylbenzene	98828	14.0
4-Isopropyltoluene	99876	4.2
Methyl isobutyl ketone	108101	20.0
Methyl methacrylate	80626	19.6
Methyl tert butyl ether	1634044	1.4
Methylene chloride	75092	0.1
2-Methylnaphthalene	91576	0.56
Nitrobenzene	98953	0.2
2-Nitrophenol	88755	1.1
n-Propylbenzene	103651	1.2
Pyridine	110861	0.2

Substance	CASRN	GA PMC
Styrene	100425	2.0
1,1,1,2-Tetrachloroethane	630206	0.026
1,1,2,2-Tetrachloroethane	79345	0.01
Tetrachloroethylene	127184	0.1
Tetrahydrofuran	109999	0.09
Toluene	108883	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	76131	6.6
1,2,4-Trichlorobenzene	120821	1.4
1,1,1-Trichlorethane	71556	4.0
1,1,2-Trichloroethane	79005	0.1
Trichloroethylene	79016	0.1
Trichlorofluoromethane	75694	20.0
1,2,4-Trimethylbenzene	95636	2.4
1,3,5-Trimethylbenzene	108678	1.9
Vinyl acetate	108054	8.0
Vinyl chloride	75014	0.04
Xylenes	1330207	20.0
<u>Semivolatile Substances</u>		
Acenaphthene	83329	8.4
Acenaphthylene	208968	8.4
Aniline	62533	0.2
Anthracene	120127	1.0
Benzidine	92875	0.2
Benzo(a)anthracene	56553	1.0
Benzo(a)pyrene	50328	1.0
Benzo(b)fluoranthene	205992	1.0
Benzo(g,h,i)perylene	191242	4.2
Benzo(k)fluoranthene	207089	1.0
Benzoic Acid	65850	2,000.0
Bis(2-chloroethoxy)methane	111911	0.2
Bis(2-chloroethyl)ether	111444	0.2

Substance	CASRN	GA PMC
Bis(2-chloroisopropyl)ether	108601	0.2
Bis(2-ethylhexyl)phthalate	117817	0.2
Bromoform	75252	0.08
4-Bromophenyl-phenylether	101553	8.2
Butylbenzyl phthalate	85687	2.8
Carbazole	86748	0.2
4-Chloroaniline	106478	0.2
2-Chlorophenol	95578	0.7
3-methyl-4-Chlorophenol	59507	14.0
4-Chlorophenyl-phenylether	7005723	8.2
Chrysene	218019	1.0
m-Cresol	108394	2.4
Dibenzo(a,h)anthracene	53703	1.0
1,2-Dibromo-3-chloropropane	96128	0.005
Dibromochloromethane	124481	0.01
3,3'-Dichlorobenzidine	91941	0.2
2,4-Dichlorophenol	120832	0.2
Diethyl phthalate	84662	11.2
Dimethyl phthalate	131113	11.2
2,4-Dimethylphenol	105679	2.8
Di-n-butyl-phthalate	84742	1.4
2,4-Dinitrophenol	51285	0.3
2-methyl-4,6-Dinitrophenol	534521	0.3
2,4-Dinitrotoluene	121142	0.2
2,6-Dinitrotoluene	606202	0.2
Di-n-octyl phthalate	117840	1.4
1,4-Dioxane	123911	0.4
1,2-Diphenylhydrazine	122667	0.2
Ethanol	64175	9.4
Ethylene glycol	107211	20.0
Fluoranthene	206440	1.6
Fluorene	86737	5.6
Formaldehyde	50000	2.8

Substance	CASRN	GA PMC
Hexachlorobenzene	118741	0.02
Hexachlorobutadiene	87683	0.2
Hexachloroethane	67721	0.2
Indeno(1,2,3-c,d)pyrene	193395	1.0
Isophorone	78591	0.74
Isopropanol	67630	46.0
Methanol	67561	20.0
2-Methylphenol	95487	0.42
4-Methylphenol	106445	0.42
Naphthalene	91203	0.28
2-Nitroaniline	88744	0.3
3-Nitroaniline	99092	0.3
4-Nitroaniline	100016	0.3
N-Nitrosodimethylamine	62759	0.2
NitrosoDi-n-propylamine	621647	0.2
N-Nitrosodiphenylamine	86306	0.2
Pentachloronitrobenzene	82688	0.2
Pentachlorophenol	87865	0.3
Phenanthrene	85018	4.6
Phenol	108952	4.2
Propylene glycol	57556	20.0
Pyrene	129000	4.2
Tert-butyl alcohol	75650	2.0
1,2,4,5-Tetrachlorobenzene	95943	0.2
2,4,5-Trichlorophenol	95954	1.4
2,4,6-Trichlorophenol	88062	0.2

Substance	CASRN	GA PMC
<u>Total Petroleum Hydrocarbons</u>		
Total Petroleum Hydrocarbons by EPH/VPH Analysis		
Aliphatic Hydrocarbons C5-C8	0.6	0.6
Aliphatic Hydrocarbons C9-C12	0.5	0.5
Aliphatic Hydrocarbons C9-C18	0.5	0.5
Aliphatic Hydrocarbons C19-C36	20.0	107.0
Aromatic Hydrocarbons C9-C10	2.8	30.8
Aromatic Hydrocarbons C11-C22	2.8	13.5
Total Petroleum Hydrocarbons by EPA Method 418.1 (This method shall not be used for the analysis of samples collected after September 1, 2009)	500.0	2,500.0
Total Petroleum Hydrocarbons by ETPH Analysis		500.0

Substance	CASRN	GA PMC
<u>Pesticides</u>		
Alachlor	15972608	0.04
Aldicarb	116063	0.14
Aldrin	309002	0.006
Atrazine	1912249	0.2
Chlordane	12789036	0.006
2,4-D	94757	1.4
4,4-DDD	72548	0.003
4,4-DDE	72559	0.002
4,4-DDT	50293	0.02
Dicamba	1918009	4.2
Dichloroprop	120365	0.5
Dieldrin	60571	0.002
Endosulfan	115297	0.028
Endosulfan I	19595596	0.028
Endosulfan II	19670156	0.028
Endosulfan sulfate	1031078	0.028
Endrin	72208	0.04
Endrin aldehyde	7421934	0.04
Endrin ketone	53494705	0.04
Heptachlor	76448	0.005
Heptachlor epoxide	1024573	0.004
alpha-Hexachlorocyclohexane	319846	0.001
beta-Hexachlorocyclohexane	319857	0.001
delta-Hexachlorocyclohexane	319868	0.001
Hexachlorocyclopentadiene	77474	0.6
Lindane	58899	0.004
Methoxychlor	72435	0.06
Simazine	122349	0.08
Toxaphene	8001352	0.1

Substance	CASRN	GA PMC
<u>PCBs</u>		
Polychlorinated biphenyls	1336363	1.0 mg/kg
*GB PMC is based on TCLP or SPLP Analysis		
<u>Inorganic Substances (Values Expressed in mg/L, based on TCLP or SPLP Analysis)</u>		
Aluminum	7429905	0.05
Ammonia	7664417	1.0
Antimony	7440360	0.006
Arsenic	7440382	0.01
Barium	7440393	1.0
Beryllium	7440417	0.005
Boron	7440428	1.0
Cadmium	7440439	0.005
Chromium, hexavalent	18540299	0.01
Chromium, trivalent	16065831	0.1
Cobalt	7440484	20.0
Copper	7440508	0.5
Cyanide	57125	0.2
Lead	7439921	15.0
Lithium	7439932	14.0
Manganese	7439965	0.5
Mercury	7487947	0.002
Nickel	7440020	40.0
Nitrate	14797558	1,000.0
Radium	7440144	5.0
Selenium	7782492	0.05
Silver	7440224	0.035
Thallium	7791120	0.025
Tin	7440315	0.021
Uranium	7440611	0.01
Vanadium	1314621	0.05
Zinc	7440666	1.0

(NEW) SECTIONS 22a-209-1 AND 22A-209d-1 OF THE REGULATIONS OF CONNECTICUT STATE AGENCIES ARE AMENDED BY ADDING APPENDIX 3 AS FOLLOWS:

APPENDIX 3
TO SECTION 22a-209d-1 OF
THE REGULATIONS OF CONNECTICUT STATE AGENCIES:

**CRITERIA TO QUALIFY AS
CONDITIONAL FILL IF USED AT A
PROPERTY THAT IS A
*RESIDENCE, DWELLING, SCHOOL, DAY CARE CENTER,
PLAYGROUND, OR OUTDOOR RECREATIONAL AREA,*
Unless Such Locations Are Part of a Mixed-Use Development**

All Values in mg/kg

Substance	CASRN	Criteria
<u>Inorganic Substances</u>		
Aluminum	7429905	10,161.5
Ammonia	7664417	677.4
Antimony	7440360	135.5
Arsenic	7440382	10.0
Barium	7440393	6,774.2
Beryllium	7440417	6.8
Boron	7440428	6774.0
Cadmium	7440439	0.7
Chlorine	7782505	3,387.1
Chromium, hexavalent	18540299	10.2
Chromium, trivalent	16065831	25,000.0
Cobalt	7440484	10.0
Copper	7440508	338.7
Cyanide	57125	677.4
Lead	7439921	200.0
Lithium	7439932	67.8
Manganese	7439965	2,370.95

Substance	CASRN	Criteria
Mercury	7487947	10.15
Nickel	7440020	22.5
Selenium	7782492	170.0
Silver	7440224	170.0
Thallium	7791120	2.7
Tin	7440315	101.6
Uranium	7440611	101.5
Vanadium	1314621	33.85
Zinc	7440666	10,161.3

(New) Section 22a-209d-1 of the Regulations of Connecticut State Agencies is amended by adding Appendix 4 as follows:

Appendix 4
to Section 22a-209d-1 of
the Regulations of Connecticut State Agencies:

CRITERIA TO QUALIFY AS
CONDITIONAL FILL IF USED AT A
Property served by an On-Site Drinking Water Well

<i>All Values in mg/kg</i> Substance	CASRN	Criteria
<u>Volatile Substances</u>		
Acetone	67641	10
Acetonitrile	75058	0.1
Acrolein	107028	0.1
Acrylonitrile	107131	0.005
Benzene	71432	0.01
Bromodichloromethane	75274	0.005
Bromomethane	74839	0.035
2-Butanone	78933	10.0
n-Butylbenzene	104518	0.6
sec-Butylbenzene	135988	0.6
t-Butylbenzene	98066	0.6
Carbon disulfide	75150	7.0
Carbon Tetrachloride	56235	0.05
Chlorobenzene	108907	1.0
Chloroethane	75003	10.0
Chloroform	67663	0.06
Chloromethane	74873	0.18
2-Chloronaphthalene	91587	5.5
2-Chlorotoluene	95498	0.2

Substance	CASRN	Criteria
4-Chlorotoluene	106434	0.2
Cyclohexane	110827	10.0
Dibenzofuran	132649	0.28
1,2-Dichlorobenzene	95501	6.0
1,3-Dichlorobenzene	541731	0.07
1,4-Dichlorobenzene	106467	0.75
Dichlorodifluoromethane	75718	1.0
1,1-Dichloroethane	75343	0.7
1,2-Dichloroethane	107062	0.01
1,2-Dichloroethene	540590	0.7
1,1-Dichloroethylene	75354	0.07
cis-1,2-Dichloroethylene	156592	0.7
trans-1,2-Dichloroethylene	156605	1.0
1,2-Dichloropropane	78875	0.05
1,3-Dichloropropene	542756	0.005
Ethyl acetate	141786	10.0
Ethylbenzene	100414	7.0
Ethylene dibromide	106934	0.005
n-Hexane	110543	0.8
Isopropylbenzene	98828	7.0
4-Isopropyltoluene	99876	2.1
Methyl isobutyl ketone	108101	10.0
Methyl methacrylate	80626	9.8
Methyl tert butyl ether	1634044	0.7
Methylene chloride	75092	0.05
2-Methylnaphthalene	91576	0.28
Nitrobenzene	98953	0.2
2-Nitrophenol	88755	0.55
n-Propylbenzene	103651	0.6

Substance	CASRN	Criteria
Pyridine	110861	0.2
Styrene	100425	1.0
1,1,1,2-Tetrachloroethane	630206	0.013
1,1,2,2-Tetrachloroethane	79345	0.005
Tetrachloroethylene	127184	0.05
Tetrahydrofuran	109999	0.045
Toluene	108883	10.0
1,1,2-Trichloro-1,2,2-trifluoroethane	76131	3.3
1,2,4-Trichlorobenzene	120821	0.7
1,1,1-Trichloroethane	71556	2.0
1,1,2-Trichloroethane	79005	0.05
Trichloroethylene	79016	0.05
Trichlorofluoromethane	75694	10.0
1,2,4-Trimethylbenzene	95636	1.2
1,3,5-Trimethylbenzene	108678	0.95
Vinyl acetate	108054	4.0
Vinyl chloride	75014	0.02
Xylenes	1330207	10.0
<u>Semivolatile Substances</u>		
Acenaphthene	83329	4.2
Acenaphthylene	208968	4.2
Aniline	62533	0.2
Anthracene	120127	1.0
Benzidine	92875	0.2
Benzo(a)anthracene	56553	1.0
Benzo(a)pyrene	50328	1.0
Benzo(b)fluoranthene	205992	1.0

Substance	CASRN	Criteria
Benzo(g,h,i)perylene	191242	2.1
Benzo(k)fluoranthene	207089	1.0
Benzoic Acid	65850	1000.0
Bis(2-chloroethoxy)methane	111911	0.2
Bis(2-chloroethyl)ether	111444	0.2
Bis(2-chloroisopropyl)ether	108601	0.2
Bis(2-ethylhexyl)phthalate	117817	0.2
Bromoform	75252	0.04
4-Bromophenyl-phenylether	101553	4.1
Butylbenzyl phthalate	85687	1.4
Carbazole	86748	0.2
4-Chloroaniline	106478	0.2
2-Chlorophenol	95578	0.35
3-methyl-4 Chlorophenol	59507	7.0
4-Chlorophenyl-phenylether	7005723	4.1
Chrysene	218019	1.0
m-Cresol	108394	1.2
Dibenzo(a,h)anthracene	53703	1.0
1,2-Dibromo-3-chloropropane	96128	0.005
Dibromochloromethane	124481	0.005
3,3'-Dichlorobenzidine	91941	0.2
2,4-Dichlorophenol	120832	0.2
Diethyl phthalate	84662	5.6
Dimethyl phthalate	131113	5.6
2,4-Dimethylphenol	105679	1.4
Di-n-butyl-phthalate	84742	0.7
2,4-Dinitrophenol	51285	0.3
2-methyl-4,6-Dinitrophenol	534521	0.3

Substance	CASRN	Criteria
2,4-Dinitrotoluene	121142	0.2
2,6-Dinitrotoluene	606202	0.2
Di-n-octyl phthalate	117840	0.7
1,4-Dioxane	123911	0.2
1,2-Diphenylhydrazine	122667	0.2
Ethanol	64175	4.7
Ethylene glycol	107211	10.0
Fluoranthene	206440	1.0
Fluorene	86737	2.8
Formaldehyde	50000	1.4
Hexachlorobenzene	118741	0.2
Hexachlorobutadiene	87683	0.2
Hexachloroethane	67721	0.2
Indeno(1,2,3-c,d)pyrene	193395	1.0
Isophorone	78591	0.37
Isopropanol	67630	23.0
Methanol	67561	10.0
2-Methylphenol	95487	0.21
4-Methylphenol	106445	0.21
Naphthalene	91203	0.2
2-Nitroaniline	88744	0.3
3-Nitroaniline	99092	0.3
4-Nitroaniline	100016	0.3
N-Nitrosodimethylamine	62759	0.2
NitrosoDi-n-propylamine	621647	0.2
N-Nitrosodiphenylamine	86306	0.2
Pentachloronitrobenzene	82688	0.2
Pentachlorophenol	87865	0.3

Substance	CASRN	Criteria
Phenanthrene	85018	2.3
Phenol	108952	2.1
Propylene glycol	57556	10.0
Pyrene	129000	2.1
Sodium acetate	127093	63.0
Tert-butyl alcohol	75650	1.0
1,2,4,5-Tetrachlorobenzene	95943	0.2
2,4,5-Trichlorophenol	95954	0.7
2,4,6-Trichlorophenol	88062	0.2
 <u>Total Petroleum Hydrocarbons</u>		
Total Petroleum Hydrocarbons by EPH/VPH Analysis		
Aliphatic Hydrocarbons C5-C8		0.3
Aliphatic Hydrocarbons C9-C12		0.25
Aliphatic Hydrocarbons C9-C18		0.25
Aliphatic Hydrocarbons C19-C36		10.0
Aromatic Hydrocarbons C9-C10		1.4
Aromatic Hydrocarbons C11-C22		1.4
Total Petroleum Hydrocarbons by EPA Method 418.1 (This method shall not be used for the analysis of samples collected after September 1, 2009)		250.0
Total Petroleum Hydrocarbons by ETPH Analysis		250.0

Substance	CASRN	Residential Direct Exposure Criteria
<u>Pesticides</u>		
Alachlor	15972608	0.02
Aldicarb	116063	0.07
Aldrin	309002	0.003
Atrazine	1912249	0.2
Chlordane	12789036	0.005
2,4-D	94757	0.7
4,4-DDD	72548	0.002
4,4-DDE	72559	0.002
4,4-DDT	50293	0.002
Dicamba	1918009	2.1
Dichloroprop	120365	0.25
Dieldrin	60571	0.002
Endosulfan	115297	0.014
Endosulfan I	19595596	0.014
Endosulfan II	19670156	0.014
Endosulfan sulfate	1031078	0.014
Endrin	72208	0.02
Endrin aldehyde	7421934	0.02
Endrin ketone	53494705	0.02
Heptachlor	76448	0.002
Heptachlor epoxide	1024573	0.002
alpha-Hexachlorocyclohexane	319846	0.001
beta-Hexachlorocyclohexane	319857	0.001
delta-Hexachlorocyclohexane	319868	0.001
Hexachlorocyclopentadiene	77474	0.3
Lindane	58899	0.002
Methoxychlor	72435	0.03

Substance	CASRN	Criteria
Simazine	122349	0.04
Toxaphene	8001352	0.1
<u>PCBs</u>		
Polychlorinated biphenyls (total)	1336363	0.5
<u>Inorganic Substances</u>		
Aluminum	7429905	10,161.5
Ammonia	7664417	677.4
Antimony	7440360	135.5
Arsenic	7440382	10.0
Barium	7440393	6,774.2
Beryllium	7440417	6.8
Boron	7440428	6774.0
Cadmium	7440439	0.7
Chlorine	7782505	3,387.1
Chromium, hexavalent	18540299	10.2
Chromium, trivalent	16065831	25,000.0
Cobalt	7440484	10.0
Copper	7440508	338.7
Cyanide	57125	677.4
Lead	7439921	200.0
Lithium	7439932	67.8
Manganese	7439965	2,370.95
Mercury	7487947	10.15
Nickel	7440020	22.5
Selenium	7782492	170.0

Substance	CASRN	Criteria
Silver	7440224	170.0
Thallium	7791120	2.7
Tin	7440315	101.6
Uranium	7440611	101.5
Vanadium	1314621	33.85
Zinc	7440666	10,161.3