



Connecticut Department of  
**ENERGY &  
ENVIRONMENTAL  
PROTECTION**

# SOLID WASTE FACILITY OPERATOR CERTIFICATION MANUAL

(Revised: 2012)



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## **(4) TYPES OF SOLID WASTES**

**MUNICIPAL SOLID WASTE (MSW)** - SOLID WASTE FROM RESIDENTIAL, COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL SOURCES EXCLUDING WASTE WITH SIGNIFICANT QUANTITIES OF BULKY, SPECIAL AND HAZARDOUS WASTE.

- MSW = 60% of the total waste stream
- Includes all the mandatory recyclables: newspaper, cardboard, white office paper, glass & metal food containers, automobile batteries, nickel-cadmium, scrap metals, waste oil, leaves, grass clippings
- 40-60% of all MSW = paper products: packaging, cardboard, newspapers, office paper, junk mail, catalogs/magazines, shopping bags and mixed paper.
- By CT DEEP definition, MSW also includes items typically considered Bulky Waste; for example, construction debris, furniture, mattresses, rugs/carpets, and other large, household items. However, in past & current practices, these oversized MSW items are generally handled as bulky waste.

**BULKY WASTE (BW)** - LANDCLEARING DEBRIS, CONSTRUCTION AND DEMOLITION WASTE ONLY.

- BW = 20% of the total waste stream
- Construction & Demolition (C&D) is defined as waste building materials and packaging resulting from construction, remodeling, repair and demolition operations on houses, commercial buildings and other structures, excluding asbestos, clean fill, and “de minimis quantities” of MSW, special and/or hazardous waste.
- “de minimis quantities” = very small amounts (5%)
- Oversized MSW items – requires volume reduction processing (grind/chip/compact/dismantle manually etc.)

**SPECIAL WASTES** - NON-HAZARDOUS SOLID WASTES WHICH REQUIRE SPECIAL HANDLING PROCEDURES AT A SOLID WASTE DISPOSAL FACILITY DUE TO THEIR PHYSICAL AND/OR CHEMICAL PROPERTIES.

- Special wastes = 10% of the total waste stream
- Include, but not limited to, the following items: automobile tires, asbestos, sewage sludge, industrial sludge, contaminated soil, biomedical waste, resource recovery ash residue, etc.

**HAZARDOUS WASTE** - 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.

- Hazardous waste = 10% of the total waste stream
- Industrial/commercial & household hazardous items
- Potential Hazards/characteristics: (TRIC) Toxic, Reactive, Ignitable and Corrosive

**(REVIEW)**

CONNECTICUT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION  
SOLID WASTE DISPOSAL REGULATIONS  
SECTIONS 22a-209-1 TO 16

The complete regulations can be viewed at:

<http://www.ct.gov/dep/lib/dep/regulations/22a/22a-209-1through16.pdf>

**SECTION 22a-209-1: DEFINITIONS**

BIOMEDICAL WASTE – waste generated during “medical care or medical research involving humans or animals” excluding hazardous and radioactive materials.

CELL CONSTRUCTION METHOD - a type of landfill operation where solid waste is placed, compacted and covered according to the regulations.

CERTIFIED OPERATOR – is an employee who is present on site and carries out the daily operation and whose qualifications are approved in accordance with section 22a-209-6 of these regulations.

CLEAN FILL – is defined as natural soil, rock, brick, ceramics, concrete and asphalt paving fragments which are virtually inert.

CLEAN WOOD/RECYCLED WOOD – untreated wood products, such as, brush, trees, pallets, skids, spools and scrap construction wood.

COMPOSTING - a process of accelerated biological decomposition of organic material under controlled conditions including leaves, grass, food scraps and other organics.

COVER MATERIAL – any soil or other suitable material as approved by DEEP which is used to cover compacted solid waste.

FACILITY PLAN - engineering studies and proposals to build, establish, alter, operate, monitor and close a solid waste disposal facility.

GEOTEXTILE - a woven or nonwoven fabric or film (liners & caps) which are utilized for the engineering management of soil and water.

INTERMEDIATE PROCESSING CENTER (IPC) - a recycling facility where glass, metals, paper products and other items are manually and/or mechanical segregated then baled/sent for recycling or reuse.

LEACHATE - any contaminated liquid that results from ground/surface/rainwater being in contact with solid waste and has extracted material, either dissolved or suspended, from the solid waste.

MONOCELL - a variation of the cell construction method whereby only a single type of solid waste is disposed of in any individual cell.

OPEN DUMP - A LANDFILL SITE AT WHICH SOLID WASTE IS DISPOSED OF IN A MANNER WHICH DOES NOT COMPLY WITH SUBTITLE D OF THE RCRA (1976); A SITE THAT DOES NOT COMPACT AND COVER THE SOLID WASTE PROPERLY.

RECYCLING - THE PROCESS OF SORTING, CLEANSING, TREATING AND RECONSTITUTING WASTE OR OTHER DISCARDED MATERIAL FOR THE PURPOSE OF USING THE ALTERED FORM.

REGIONAL SOLID WASTE DISPOSAL AREA - A SOLID WASTE DISPOSAL AREA USED BY MORE THAN ONE MUNICIPALITY.

RESIDUE - BOTTOM ASH, AIR POLLUTION CONTROL RESIDUE/FLY ASH FROM THE COMBUSTION PROCESS AT RESOURCE RECOVERY FACILITIES.

RESOURCE RECOVERY FACILITY - A VOLUME REDUCTION PLANT UTILIZING PROCESSES AIMED AT RECLAIMING/RECYCLING THE MATERIAL AND/OR ENERGY VALUES FROM THE SOLID WASTES.

SOLID WASTE DISPOSAL AREA/FACILITY - ANY LOCATION USED FOR THE DISPOSAL OF MORE THAN TEN CUBIC YARDS OF SOLID WASTE.

TRANSFER STATION - A VOLUME REDUCTION PLANT THAT ACTS AS A CENTRAL COLLECTION POINT FOR ONE OR MORE MUNICIPALITIES WHERE SOLID WASTE IS RECEIVED, TRANSFERRED TO ANOTHER VEHICLE AND TRANSPORTED TO A FINAL SOLID WASTE DISPOSAL FACILITY (USUALLY A RESOURCE RECOVERY FACILITY).

TREATED WOOD – WOOD PRODUCTS WHICH CONTAIN ADHESIVES, PAINT, STAIN, FIRE RETARDANTS, PESTICIDES OR PRESERVATIVES.

VECTOR - AN INSECT, RODENT, BIRD OR OTHER ANIMAL WHICH CAN TRANSMIT INFECTIOUS DISEASES FROM ONE PERSON OR ANIMAL TO ANOTHER PERSON OR ANIMAL.

VOLUME REDUCTION FACILITY - ANY LOCATION OR STRUCTURE WHERE MORE THAN TWO THOUSAND POUNDS PER HOUR OF SOLID WASTE GENERATED ELSEWHERE MAY BE REDUCED IN VOLUME, INCLUDING BUT NOT LIMITED TO, RESOURCE RECOVERY FACILITIES, INCINERATORS, RECYCLING FACILITIES, PULVERIZERS, COMPACTORS, SHREDDERS, BALERS AND COMPOSTING FACILITIES.

WORKING FACE - THAT PORTION OF A LANDFILL WHERE WASTE IS DEPOSITED, SPREAD AND COMPACTED PRIOR TO THE PLACEMENT OF COVER MATERIAL.

## **SECTION 22a-209-2: PROHIBITION OF OPEN DUMPS**

FEDERAL RESOURCE CONSERVATION & RECOVERY ACT (1976) - MUST

COVER WASTE DAILY AT SOLID WASTE LANDFILLS, WEEKLY AT BULKY WASTE LANDFILLS.

**SECTION 22a-209-3: APPLICABILITY**

ALL FACILITIES MUST FOLLOW THESE REGULATIONS EXCEPT THOSE ACCEPTING ONLY CLEAN FILL.

**SECTION 22a-209-4: PERMITS**

DEEP PERMITS ARE REQUIRED FOR THE CONSTRUCTION OF A SOLID WASTE DISPOSAL FACILITY AND FOR THE OPERATION OF A SOLID WASTE DISPOSAL FACILITY.

SITE SPECIFIC FACILITY PLANS/OPERATIONAL PLANS MUST BE SUBMITTED TO DEEP FOR APPROVAL.

**SECTION 22a-209-5: CONTRACT APPROVALS**

ALL SOLID WASTE FACILITIES MUST SUBMIT THEIR TOWN CONTRACTS TO DEEP FOR REVIEW & APPROVAL.

**SECTION 22a-209-6: CERTIFICATION OF OPERATORS**

AT LEAST ONE CERTIFIED OPERATOR MUST BE PRESENT AT ALL TIMES DURING OPERATING HOURS.

CERTIFICATION IS BASED ON ATTENDANCE AT DEEP CLASS AND/OR SUCCESSFULLY COMPLETING A WRITTEN/VERBAL EXAMINATION.

AN APPLICATION MUST BE SUBMITTED.

CERTIFICATE IS VALID FOR FIVE YEARS.

DEEP CAN REQUIRE ATTENDANCE AT EDUCATIONAL CLASSES TO MAINTAIN CERTIFICATION DURING THIS FIVE YEAR PERIOD.

CERTIFICATE SHOULD BE DISPLAYED AT SOLID WASTE FACILITY OR TOWN GARAGE.

CERTIFICATE IS VALID STATEWIDE (NOT SITE SPECIFIC).

CERTIFICATE CAN BE REVOKED THROUGH A HEARING.

**SECTION 22a-209-7: LANDFILL OPERATING REQUIREMENTS**

MUST HAVE PROPER DEEP OPERATIONAL PERMITS.

MUST PROTECT GROUND & SURFACE WATER FROM POLLUTION BY KEEPING SOLID WASTE 5 FEET ABOVE GROUND WATER AND THE GROUND WATER CAN NOT BE DEGRADED BEYOND DRINKING WATER STANDARDS.

PROPER GRADES MUST BE MAINTAINED: SIDE SLOPES 3:1 OR 33% AND TOP SURFACE 25:1 OR 4% TO PREVENT PONDING

NO SOLID WASTE SHOULD COME IN CONTACT WITH SURFACE WATER.

EROSION MUST BE CONTROLLED.

1,000 FEET SEPARATION BETWEEN DRINKING WATER WELLS & SOLID WASTE.

GROUND WATER MONITORING AS REQUIRED BY YOUR OPERATIONAL PLANS & PERMIT (USUALLY QUARTERLY WITH AN ANNUAL REPORT).

ACCESS TO FACILITY MUST BE CONTROLLED BY FENCING & GATES.

ALL WEATHER ROADS & POST SIGNS WITH HOURS, RESTRICTIONS, TRAFFIC DIRECTIONS & SAFETY INFORMATION.

THE OWNER/OPERATOR IS RESPONSIBLE FOR FIREFIGHTING ACTIVITIES. IF NECESSARY GET ASSISTANCE FROM LOCAL FIRE DEPARTMENT. CLOSE FACILITY WHEN THERE IS A FIRE OR CONDUCT DISPOSAL OPERATIONS IN A SAFE AREA.

NOTIFY DEEP IMMEDIATELY OF ANY TYPE OF FIRE.

SITES MUST SUBMIT QUARTERLY REPORTS TO DEEP.

THE WORKING FACE SHOULD NOT EXCEED 150 FEET WIDTH. FACILITIES SHOULD BE USING THE CELL CONSTRUCTION METHOD OF DISPOSAL. ONLY ONE AREA (WORKING FACE) AT A TIME, UNLESS APPROVED. CELL HEIGHTS SHOULD NOT EXCEED 10 FEET.

WASTE SHOULD BE SPREAD IN 3 FOOT LAYERS AND COMPACTED (3-5 PASSES).

NO SCAVENGING ALLOWED - PRIMARILY FOR SAFETY REASONS!

PROPER COVER APPLIED DAILY AT MSW LANDFILLS, WEEKLY AT BULKY

WASTE SITES. OTHER FORMS OF COVER (ie TARPS, ALTERNATIVE DAILY COVER) ONLY WITH DEEP WRITTEN APPROVAL.

CITIZEN WASTE COLLECTION AREAS SHOULD BE CLEANED WITHIN 48 HOURS. RECYCLING ROLL-OFFS ARE EXEMPT.

HEAVY EQUIPMENT SHOULD BE OF SUFFICIENT SIZE & TYPE FOR SITE. ROUTINE DAILY MAINTENANCE. CONTINGENCY PLAN FOR ALTERNATIVE EQUIPMENT. NOTIFY DEEP IF EQUIPMENT IS DOWN.

BLOWING LITTER SHOULD BE CONTROLLED BY FENCES & BERMS AND THE SITE SHOULD BE REASONABLY CLEAR OF LITTER AT THE END OF EACH WORKING DAY.

COVER: 25% OF THE VOLUME USED OVER 10 DAYS SHOULD BE STOCKPILED ON SITE AND HAVE ACCEPTABLE TEXTURE. DAILY COVER = 6 INCHES. INTERMEDIATE COVER (A TEMPORARY CLOSED AREA, LESS THAN 9 MONTHS) = 12 INCHES. FINAL COVER = 2 FEET, COMPACTED & SEEDED.

VECTOR CONTROL - MAINTAIN UNFAVORABLE CONDITIONS FOR HARBORING, FEEDING & BREEDING OF RATS, BIRDS, INSECTS AND OTHER ANIMALS .

NEW SITES MAY BE REQUIRED TO MONITOR METHANE GAS PRODUCTION AND MIGRATION. CONCENTRATIONS IN ON-SITE OR OFF-SITE STRUCTURES SHOULD BE LESS THAN 25% OF THE LOWER EXPLOSIVE LIMIT.

SOME SITES ARE AUTHORIZED TO RECOVER METHANE AS A FUEL OR TO FLARE IT.

HAZARDOUS WASTE FROM INDUSTRIAL OR COMMERCIAL SOURCES CAN NEVER BE ACCEPTED AT ANY CONNECTICUT SOLID WASTE DISPOSAL FACILITY.

HOUSEHOLD HAZARDOUS WASTE CAN BE COLLECTED AT LANDFILLS AND TRANSFER STATIONS ONLY BY APPROVAL. REGIONAL COLLECTION AREAS ARE BEING ESTABLISHED TO REDUCE THIS TYPE OF WASTE FROM ENTERING CONNECTICUT'S SOLID WASTE DISPOSAL FACILITIES.

RECYCLING AREAS AND SWAP SHOPS SHOULD BE KEPT CLEAN & ORDERLY AND ITEMS SHOULD BE REMOVED FREQUENTLY TO PREVENT STOCKPILING LARGE QUANTITIES.

ADEQUATE SHELTER, RESTROOM, FIRST AID KIT, TELEPHONE OR TWO-WAY RADIO MUST BE LOCATED AT OR NEAR THE DISPOSAL AREA.

DUST SHOULD BE CONTROLLED WITH CALCIUM CHLORIDE OR WATER.



ODORS SHOULD BE MINIMIZED. NO OPEN BURNING OF SOLID WASTE. BRUSH BURNING ALLOWED 6 TIMES A YEAR IN MOST CASES, MUST APPLY FOR PERMIT.

SOLID WASTE DISPOSAL AREAS NEAR AIRPORTS MUST CONDUCT DISPOSAL ACTIVITIES 5,000 - 10,000 FEET AWAY FROM RUNWAYS.

THE WORKING FACE SHOULD BE KEPT SCREENED BY SURROUNDING RESIDENTS & BUSINESSES.

DEEP APPROVAL IS REQUIRED IF ANY PORTION OF THE LANDFILL NEEDS TO BE DISRUPTED.

ENDANGERED SPECIES AND HABITATS (PLANTS, FISH, OR WILDLIFE) SHOULD NOT BE DISTURBED IN ANY WAY.

BOUNDARIES WILL BE MARKED WITH LATERAL FILL MARKERS.

**SECTION 22a-209-8: SPECIAL WASTE DISPOSAL**

ANY SOLID WASTE DISPOSAL FACILITY WHICH ACCEPTS A "SPECIAL WASTE" MUST HAVE A SPECIAL WASTE APPROVAL FROM DEEP.

THE COMBINED DISPOSAL OF SPECIAL WASTES WITH OTHER SOLID WASTES IS PROHIBITED UNLESS SPECIFICALLY APPROVED IN WRITING BY THE DEEP.

**SECTION 22a-209-9: SOLID WASTE TRANSFER STATIONS**

DEEP PERMITS ARE REQUIRED FOR CONSTRUCTION AND FOR OPERATION.

TOWNS USING THE FACILITY MUST BE AUTHORIZED TO DO SO. DEEP REVIEWS & APPROVES CONTRACTS.

ACCESS MUST BE CONTROLLED BY GATES & FENCING. SIGNS POSTED WITH HOURS, AUTHORIZED USERS, DIRECTIONS AND SAFETY INFORMATION.

TRANSFER STATIONS MUST CONTROL DUST, NOISE & LITTER. MSW SHOULD NOT BE STORED FOR GREATER THAN 48 HOURS EXCEPT OVER A LEGAL HOLIDAY WEEKEND TO PREVENT ODORS, VECTORS AND PUBLIC HEALTH CONCERNS.

ROLL-OFF CONTAINERS MUST BE COVERED AT THE END OF THE WORKING DAY TO PREVENT LEACHATE (FROM RAIN), BLOWING LITTER, AND VECTORS.

SCREENING MUST BE PROVIDED IF WITHIN 500 FEET OF A RESIDENCE.

THE AREA SURROUNDING THE TRANSFER STATION SHOULD BE KEPT CLEAN AND LITTER FREE. NOISE SHOULD BE MINIMIZED.

INDUSTRIAL/COMMERCIAL HAZARDOUS WASTES ARE NEVER ACCEPTABLE AND MOST SPECIAL WASTE ITEMS SHOULD NEVER BE ALLOWED. ONE EXCEPTION: TIRES.

HOUSEHOLD HAZARDOUS WASTES CAN BE COLLECTED & STORED ONLY WITH DEEP APPROVAL.

DUST & ODORS MUST BE CONTROLLED. NO OPEN BURNING OF SOLID WASTES ON-SITE. IF BRUSH BURNING IS APPROVED AND A PERMIT IS ISSUED, IT CAN BE PERFORMED ON-SITE BUT RESIDUE MUST BE TAKEN AWAY (NOT BURIED ON-SITE).

HOT LOADS NEVER ACCEPTED. IF DUMPING IS NECESSARY, IT MUST BE DONE IN A SAFE AREA AWAY FROM WASTE AND SURFACE WATERS. ADEQUATE FIREFIGHTING EQUIPMENT REQUIRED AND LOCAL FIRE DEPARTMENT SHOULD BE NOTIFIED AS BACK UP. DEEP SHOULD BE NOTIFIED IMMEDIATELY OF ANY TYPE OF FIRE.

VECTOR CONTROL BY MAINTAINING UNFAVORABLE CONDITIONS FOR HARBORING, FEEDING AND BREEDING OF RATS, INSECTS AND BIRDS.

ROUTINE MAINTENANCE AND OPERATIONAL REPAIRS TO STATION AND EQUIPMENT AS NEEDED.

NOTIFY DEEP WITHIN 24 HOURS OF A SHUT DOWN. ALTERNATIVE WASTE DISPOSAL MUST BE AVAILABLE & IMPLEMENTED.

DAILY RECORDS MAINTAINED. MEASURED OR ESTIMATED TONNAGES FROM EACH COMMUNITY. MONTHLY SUMMARIES SUBMITTED TO DEEP EACH QUARTER. RECORDS MUST BE AVAILABLE FOR INSPECTION.

**SECTION 22a-209-10: RESOURCE RECOVERY FACILITIES & OTHER VOLUME REDUCTION FACILITIES**

DEEP PERMITS NEEDED TO CONSTRUCT AND OPERATE RESOURCE RECOVERY FACILITY & OTHER VOLUME REDUCTION FACILITIES.

ACCESS TO FACILITY MUST BE CONTROLLED BY USE OF FENCE & GATES. SIGNS MUST BE POSTED STATING HOURS, AUTHORIZED USERS, AND OTHER INFORMATION.

NO SOLID WASTE CAN BE STORED FOR GREATER THAN 48 HOURS EXCEPT ON LEGAL HOLIDAY WEEKENDS (72 hours).

SCAVENGING IS PROHIBITED. UNLOADING OF SOLID WASTE SHALL TAKE PLACE WITHIN AN ENCLOSED STRUCTURE.

AREAS WILL BE KEPT CLEAN AND LITTER FREE.

A CERTIFIED OPERATOR WILL BE PRESENT AT ALL TIMES DURING OPERATING HOURS.

HAZARDOUS AND SPECIAL WASTES ARE NOT ACCEPTABLE UNLESS DEEP HAS APPROVED IN WRITING.

AIR EMISSIONS, DUST AND ODORS WILL BE CONTROLLED.

EQUIPMENT WILL BE PROVIDED TO CONTROL FIRES. LOCAL FIRE DEPARTMENT CAN BE USED AS BACK UP AND DEEP SHOULD BE IMMEDIATELY NOTIFIED.

PLANT DESIGN WILL HAVE EXPLOSION PROTECTION. ALL EXPLOSIONS MUST BE IMMEDIATELY REPORTED TO DEEP.

DEEP MUST BE NOTIFIED WITHIN 24 HOURS OF A SHUT DOWN AND AN ALTERNATIVE IMPLEMENTED.

DAILY RECORDS KEPT OF TONNAGES AND MONTHLY SUMMARIES SUBMITTED TO DEEP EACH QUARTER.

TEMPORARY FACILITIES OPERATE FOR A PERIOD OF LESS THAN 2 YEARS.

**SECTION 22a-209-11: VARIANCES**

A VARIANCE TO YOUR FACILITY PERMIT CAN BE REQUESTED FOR CHANGES IN THE DESIGN OF THE FACILITY, OPERATING REQUIREMENTS AND TEMPORARY OPERATIONS. ANY VARIANCE WHICH IS NOT A MINOR PERMIT AMENDMENT, DEEP MUST PUBLISH NOTICE AND HOLD A PUBLIC HEARING.

**SECTION 22a-209-12: VIOLATIONS**

NO PERSON SHALL VIOLATE OR CAUSE THE VIOLATION OF ANY STATUTES OR REGULATIONS.

DEEP EMPLOYEES WILL CONDUCT INVESTIGATIONS, SEND WRITTEN CORRECTIVE ORDERS AND TESTIFY AT HEARINGS. PERSONS RECEIVING AN ORDER MAY REQUEST A HEARING WITHIN 30 DAYS FROM RECEIVING THAT ORDER.

**SECTION 22a-209-13: CLOSING OF SOLID WASTE FACILITIES**

60 DAYS PRIOR TO CLOSING, THE OWNER MUST NOTIFY DEEP.

DEEP WILL INSPECT THE SOLID WASTE FACILITY TO DETERMINE IF THE CLOSING IS SATISFACTORY/ACCORDING TO CLOSURE PLAN.

AS BUILT DRAWINGS OF THE AREA MUST BE SUBMITTED TO DEEP WITHIN 90 DAYS OF THE CLOSING.

A DETAILED DESCRIPTION OF THE DISPOSAL AREA WILL BE PLACED ON THE APPROPRIATE LAND RECORDS.

POST-CLOSURE MAINTENANCE AND MONITORING OF THE SOLID WASTE DISPOSAL AREA WILL BE THE PROPERTY OWNER RESPONSIBILITY FOR 20 TO 30 YEARS UNLESS OTHER PERSONS ARE APPROVED BY DEEP.

**SECTION 22a-209-14: RESIDUE DISPOSAL**

RESOURCE RECOVERY RESIDUE WILL BE DISPOSED OF IN MONOCELLS.

RECORDS WILL BE MAINTAINED: WEIGHT, ASH RESIDUE ORIGIN, CELL LOCATION.

LANDFILLS ACCEPTING ASH RESIDUE MUST HAVE A DOUBLE LINER SYSTEM WITH LEACHATE COLLECTION, DETECTION, TREATMENT AND DISCHARGE SYSTEMS.

**SECTION 22a-209-15: BIOMEDICAL WASTE**

**SECTION 22a-209-16: FEES TO TRANSFER SOLID WASTE PERMITS**

**SECTION 22a-209-17: MERCURY CONTAINING LAMPS**

## Resource Conservation and Recovery Act (RCRA) Subtitle D - Regulations Review

- \* Went into effect: April 9, 1994
- \* Applied to MSW landfills, not bulky waste landfills.
- \* Minimum criteria for where MSW landfills can be located, how they are designed, operated and eventually closed.
- \* New requirements include: double liner systems (geotextiles), leachate collection, treatment and discharge systems, gas management, final caps (geotextiles), and extensive monitoring programs.
- \* Estimated cost for these improvements in the 1990's was about \$300,000. per acre
- \* Most MSW landfills in CT closed at this time and towns built Transfer Stations, started to recycle and signed contracts with RRFs for disposal of their MSW.

### **CRITERIA:**

#### Section 1- LOCATION RESTRICTIONS:

MSW landfills cannot be sited on wetlands, floodplains, earthquake-prone areas, unstable geological areas or near airports. Existing landfills near these areas must have closed by 1996, unless the owners can ensure safe operations.

#### Section 2 - OPERATING CRITERIA:

- \* 6 inches of soil as daily cover
- \* Alternative Daily Covers (ADCs) can be used in CT only with DEEP approval
- \* vector control, gas management, control access to site, leachate management, record keeping, troubleshooting

#### Section 3 - MINIMUM LINER DESIGN:

- \* 2 feet of soil/clay material - impermeable to moisture ( $1 \times 10^{-7}$  cm/sec)
- \* Composite liners: 60-mil HDPE (High Density PolyEthylene)

#### Section 4 - FINAL COVER DESIGN:

- \* 18 inch infiltration layer ( $1 \times 10^{-5}$  cm/sec permeability)
- \* 6 inch vegetative support layer

#### Section 5 - GROUNDWATER MONITORING:

- \* Perimeter wells must be installed to monitor/detect contamination in groundwaters
- \* Parameters: leachate indicators, 15 metals, 47 volatile organics = expensive

- \* Monitoring program has 3 parts:
  - 1- detection
  - 2- assessment
  - 3- corrective action

Section 6 - FINANCIAL ASSURANCES:

\* Owners need to prove they have the financial capacity to keep the landfill safe for up to 30 years after the landfill closes. A trust fund/surety must be posted for closure costs, post-closure maintenance and any corrective actions necessary = expensive

**TYPES OF SOLID WASTE FACILITIES**

(Revised: 2014)

- 1) **LANDFILLS:** (25)  
[http://www.ct.gov/dep/cwp/view.asp?a=2718&q=325462&depNav\\_GID=1646](http://www.ct.gov/dep/cwp/view.asp?a=2718&q=325462&depNav_GID=1646)  
 MSW Landfill - (1) – Windsor, CT  
 BW Landfills - (18)  
 Special Waste Landfills - (5)  
 RRF Ash Residue Landfills – (1) - Putnam, CT
  
- 2) **TRANSFER STATIONS:** (170+)  
 MSW Transfer Stations –  
 C&D Transfer Stations –  
 Special Waste Transfer Stations –  
 General Permitted - Municipal Transfer Stations -
  
- 3) **VOLUME REDUCTION FACILITIES:** (45+)  
[http://www.ct.gov/dep/cwp/view.asp?a=2718&q=330810&depNav\\_GID=1646](http://www.ct.gov/dep/cwp/view.asp?a=2718&q=330810&depNav_GID=1646)
  
- 4) **MATERIAL RECOVERY FACILITIES a.k.a. INTERMEDIATE PROCESS CENTERS:** (5)  
[http://www.ct.gov/dep/cwp/view.asp?a=2714&q=324866&depNav\\_GID=1645](http://www.ct.gov/dep/cwp/view.asp?a=2714&q=324866&depNav_GID=1645)  
 Berlin, Hartford, Stamford, Danbury & Willimantic
  
- 5) **RESOURCES RECOVERY FACILITIES:** (6)  
[http://www.ct.gov/dep/cwp/view.asp?a=2718&q=332074&depNav\\_GID=1646](http://www.ct.gov/dep/cwp/view.asp?a=2718&q=332074&depNav_GID=1646)  
 Mass Burn Facilities – (5) Bridgeport, Lisbon, Preston, Bristol & Wallingford  
 Refuse-Derived Fuel Facility – (1) - Hartford/Mid-CT
  
- 6) **GENERAL PERMITTED FACILITIES:** (150+)  
 Recycling Facilities –  
 Paint & Stain Collection Sites –  
 Consumer Electronics Collection Sites –  
 Fluorescent Lamp Collection –  
 Beneficial Use –

7) **COMPOSTING FACILITIES:** (125 +)

Leaves -

[http://www.ct.gov/dep/cwp/view.asp?a=2718&q=325374&depNav\\_GID=1645](http://www.ct.gov/dep/cwp/view.asp?a=2718&q=325374&depNav_GID=1645)

Food scraps-

[http://www.ct.gov/dep/cwp/view.asp?a=2718&q=325376&depNav\\_GID=1645](http://www.ct.gov/dep/cwp/view.asp?a=2718&q=325376&depNav_GID=1645)

Wood (Brush & Stumps) –

[http://www.ct.gov/dep/cwp/view.asp?a=2718&q=325342&depNav\\_GID=1645](http://www.ct.gov/dep/cwp/view.asp?a=2718&q=325342&depNav_GID=1645)

**CONNECTICUT’S SOLID WASTE  
MANAGEMENT PLAN**

[http://www.ct.gov/dep/cwp/view.asp?a=2718&q=325482&depNav\\_GID=1639](http://www.ct.gov/dep/cwp/view.asp?a=2718&q=325482&depNav_GID=1639)

Pollution prevention (P2) is also known as “**Source Reduction**”. It is **the preferred (#1) solid waste management (SWM) option** in the State of Connecticut (CT). It deals with waste BEFORE it is produced by the public and/or by industrial/commercial facilities.

Residents can **REDUCE** their production of solid waste by changing their buying habits. They should buy items that can be placed into their recycling bins as opposed to their garbage cans (i.e. plastic or glass rather than a paper carton). They could start a home-composting unit for their leaves and food scraps. They should use more durable items and less disposable. People are now using more reusable shopping bags than they did in the past – stores are encouraging this behavior by offering financial incentives!! Donating items to charity, consignment shops and having tag sales also helps in source reduction by allowing others to **REUSE** items. Putting items at the curb with a FREE sign on them is another great way to get rid of unwanted, yet still good things.

Selling unwanted but still useable items has never been easier now that most people have a computer at home. Web sites like “Ebay” and other “Material Exchanges” are very successful. There are even web sites where people can look for or give away items for free. One of these is: [www.freecycle.org](http://www.freecycle.org)

Companies benefit economically from pollution prevention plans. Companies can reduce or eliminate their use of toxic substances with alternative products. They can reduce the packaging they use to market a product. They could also modify their processes to reduce the quantity of by-products/discharges released to the air, water and land.

Several municipalities have instituted a “pay-per-bag” program at their Transfer Stations. Residents are required to purchase special garbage bags to use (price ranges from 50 cents to \$3.00 per bag). This type of program encourages reducing the amount of trash thrown away and promotes **RECYCLING**. Many landfills/transfer stations have established “swap shops” (material exchange areas) where people can leave items that are still usable/repairable for others to freely take. These areas must be in a safe location, otherwise it would be known as scavenging, which is

not allowed! Swapping books (one for one) at: [www.paperbookswap.com](http://www.paperbookswap.com) , CDs at [www.swapCDs.com](http://www.swapCDs.com) and DVDs at [www.swapDVDs.com](http://www.swapDVDs.com) is even now possible!

The United States is the most wasteful society on earth! The population in the USA only equals 4% of the entire world's population yet we use 40-70% of the world's resources! Instead of being a "throw-away society", we need to learn how to reduce what gets thrown away. Many repairable items also get thrown away on a daily basis but there are many people willing to **REPAIR or REFURBISH** things like TVs, furniture, lawn mowers, bicycles etc.

All the **other solid waste management options** deal with solid waste **AFTER** it has been produced. The **second preferred SWM option is recycling/composting**. Connecticut's mandatory recycling program started January 1, 1991 and its' goal was to recycle 25% of the total waste stream. Connecticut towns in 2009 were recycling at an average 30%. {Some towns can be recycling as much as 50%, while major cities were only recycling 10% = 30% State average.}

**58% combined Source Reduction & Recycling/Composting Goal by 2024**

Increased to **60%** by Gov. Mallory in 2014

#### **THE FIVE R's:**

REDUCE, REUSE, RECYCLE, REPAIR/REFURBISH, & RECOVER (energy values)

**Resources Recovery Facilities (RRF)** are the **third** preferred SWM option in CT. Approximately 80% of the total waste stream is sent to RRF in CT. This is twice the national average! We have 6 RRF in CT which burn approximately 8,000 total tons per day. These facilities can reduce the volume of solid waste by 80-90% through incineration and they **RECOVER** the energy value (BTUs) from solid waste. They also recycle the scrap metal out of the ash they generate. Therefore, there is only 10-20% ash left over. This ash is currently being disposed of in a double-lined landfill located in Putnam, CT.

The **least preferred SWM option is landfilling**. Less than 1% of the total waste stream is being buried at this time in Connecticut. There will always be a need for landfills - for the items that cannot be incinerated or recycled and for the products of the incineration process (ash residue). This percentage is expected to drop in the future, as new technology is developed and beneficial use options for solid wastes (ash, sludge, glass aggregate, contaminated soil, etc.) are approved by CT DEEP. There will always be a need for landfills - but siting a new landfill is virtually impossible here in CT and any future landfills will need a double liner system with leachate collection & treatment; gas collection/flaring/energy recovery systems; and will be required to perform extensive quarterly/annual monitoring. Connecticut is currently exporting MSW and most of our BW materials to out-of-State landfills. This practice is expected to increase in the future.

### **MUNICIPAL SOLID WASTE MANAGEMENT**

Municipal Solid Waste (MSW): MSW includes almost everything a person throws out as garbage/trash while at home, at work and even waste thrown out while you are out having fun



(theaters, sporting events, restaurants etc.) Each person in the Northeast produces an average 4-5 pounds of MSW every day. Other typical components of MSW, by DEEP definition, include the following: food scraps, over-sized MSW (furniture, mattresses, rugs etc.), household hazardous waste, construction debris, dead animals, and hypodermic needles from individuals.

**Past MSW Management** - Open burning (no air pollution control devices) of MSW was allowed and very common. Open dumps (no compaction or cover required) were also used. Ocean dumping was also used by many communities. All of these practices have been discontinued and are now illegal here in CT. Sanitary landfill management started in 1976 and it required daily compaction and cover with 6 inches of soil. Within 20 years, most MSW landfills in Connecticut have been closed. Currently, only one MSW landfill remains in Connecticut (Town of Windsor). When the Windsor landfill closes in July 2014 or so, CT will be the FIRST State in the nation without any MSW landfills!

**Current & Future MSW Management** – There are six resource recovery facilities in Connecticut which incinerate MSW using the best available air pollution control equipment and high temperatures/retention times. They also produce energy in the form of electricity from the combustion of MSW. Metals are also recycled from the ash residue. There is little or no water discharge from these facilities and the left over ash is landfilled in a double-lined landfill.

**Mandatory Recycling Law** – The items required by DEEP at this time to be recycled are the following: scrap metal, waste oil, automobile batteries, leaves, glass & metal food containers, newspaper, cardboard, white office paper, nickel-cadmium batteries, #1 & #2 plastic containers, magazines, boxboard and Covered Electronic Devices (CEDs).

- **Scrap metal:** Scrap metals/appliances had a serious problem in 1988 when it was discovered that the “Fluff” (non-metallic residue) from shredders and compactors was contaminated with high levels of PCBs. PCBs (poly-chlorinated biphenyl’s) are chemicals that were added to the oil of many small capacitors/ballasts before 1979. PCBs are now known as a public health/environmental threat and are no longer used in this manner. Operators and owners are responsible for removing and disposing PCB capacitors and ballasts before their scrap piles are processed in any way. Many towns remove their own while other towns contract it out. CFCs, also commonly known as Freon, is required to be removed and recycled. Operators can purchase evacuation equipment and receive payment for the used CFCs.
- **Waste oil:** Waste oil needs to be collected so it can be reused or recycled. The tanks need to be above ground with secondary containment and be sheltered from the elements. We also recommend that tanks be locked.
- **Automobile batteries:** Automobile batteries have the highest recycling rate (95%). Connecticut has a battery take-back deposit program
- **Leaves:** Leaves must be composted in Connecticut. Residents can compost at home (leaves, grass clippings, food scraps). The large scale composting operations need to be registered with CT DEEP. Composting is a managed process. Operators must actively monitor the windrows (piles) for temperature,

moisture etc. Leaves will biodegrade within 8-10 months by the micro-organisms. Your job is to keep those critters happy/alive and you will have beautiful, rich compost to sell/give away.

- **Glass & metal “food” containers:** Only “food containers” not pyrex, ceramics, window glass, baking or frying pans, etc. Glass & metal food containers should be rinsed clean and facilities should minimize glass breakage as much as possible. The glass bottles break less when co-mingled with cans & plastic because they are cushioned. Plastic recycling is not state-mandated.
- **Newspaper, cardboard, white office paper:** All paper products should be kept dry, clean & in covered storage containers to prevent litter and newsprint from becoming sunburnt/discolored.
- **Nickel-cadmium batteries:** Nickel-Cadmium (NiCad) batteries should be collected & recycled as of May 1, 1996 either through a “retail take-back program” and/or a “municipal drop-off program”. The Rechargeable Battery Recycling Corporation (RBRC) is an organization that will provide containers at cost & will accept NiCad batteries for recycling. The RBRC will pay all recycling costs including postage/handling for sending the full container to them!
- **Plastics #1 & #2 -** However, most towns recycle all 7 types of plastic including rigid plastics (auto bumpers, large plastic toys etc)
- **Boxboard** – cereal and cracker boxes
- **Magazines/Mixed Paper** – junk mail, phone directories, soft covered books, catalogs etc

**Connecticut’s Grass Ban:** As of October 1998 - no landfill, transfer station or resource recovery facility in Connecticut is permitted to accept grass clippings for disposal. Towns should discourage grass collection since many new lawn mowers mulch automatically. If grass is collected, residents should be encouraged to add the clippings to their home-composting piles. Otherwise, towns must apply for a DEEP General Permit to add grass to their current leaf composting area.

**Voluntary Recycling** - Currently, there are many other items being recycled by CT municipalities. However, these items are “not mandated” by DEEP to be collected/recycled. They include, but not limited to, the following: #3-#7 plastics, antifreeze, oil filters, cardboard drink containers (aseptics), textiles, paint, mattresses, household/dry-cell batteries etc. These items should be collected depending on available markets and their associated costs.

**Over-sized MSW (furniture, mattresses, rugs etc.)** – These items are hard to manage because of their size and the fact that there are only a few machines available which can process/shred these items without problems. These machines also require regular maintenance that can be expensive. Some towns have employees who dismantle these items by hand, but this is labor intensive. Industrial shredders/tub grinders could also be used to reduce these items so that they could be accepted at a RRF for disposal rather than taking up valuable landfill space! Volume reduction facilities (VRF) can reduce the volume of over-sized MSW by up to 85%.

## **Bulky Waste Management**

Landclearing debris, Construction and Demolition (C&D) waste. By definition, Bulky Waste does NOT include construction debris, over-sized MSW or clean fill materials, however, in reality, these other items have been included. Bulky waste items make up about 20% of the total waste stream.

Landclearing debris includes the following: trees, stumps, branches and other clean wood. Demolition waste comes primarily from any structure that is destroyed and consists of the following: steel, wood, plaster, gypsum, fixtures, piping, roofing materials etc.

C&D waste is defined as waste building materials and packaging resulting from construction, remodeling, repair and demolition operations on houses, commercial buildings and other structures, excluding asbestos, clean fill, and “de minimis quantities” of MSW, special and/or hazardous waste.

Historically, bulky waste items all went to landfills. However, since bulky waste landfills are closing in Connecticut, additional VRFs will be utilized for processing, reusing and recycling as much material as possible. Currently, 85% of our Bulky Waste is being exported out-of-state by truck and/or rail to Ohio, Virginia, New York and Pennsylvania.

Clean wood is 100% reusable/recyclable for compost, mulch, soil additives etc. Whereas, pressure-treated wood products or demolition debris that could have lead painted surfaces would be processed and then sent to a bulky waste landfill for disposal.

Clean fill materials could be crushed and reused as aggregate. Many of the things we once buried can be recycled or reused. Again, it is time for the USA to stop being such a wasteful society!

## **Special Waste Management**

Non-hazardous solid waste which require special handling at solid waste disposal facilities due to its physical and/or chemical properties and includes: industrial sludges, sewage sludge, casting sand/slag, contaminated soils, tires, asbestos, resources recovery ash residue and biomedical waste. Special waste items make up about 10% of the total waste stream.

Special wastes require a written “DEEP special waste approval” for their disposal. Most special wastes go to landfills (i.e. sludges) or to special waste treatment facilities (i.e. biomedical waste).

Tires are known as a special waste because in a landfill they do not remain buried for long. In the past, most of the tires thrown out in the Northeast went to the Sterling, CT Resources Recovery Facility. This facility burned over 10 million tires every year, it operated with similar air pollution controls as trash RRFs in CT and it produced power as well. Unfortunately, this facility closed in 2013. Tires are also a fire hazard and could be a mosquito breeding ground, if stored uncovered & outside.

Resources recovery ash residue is also known as a special waste and it must go to a double-lined landfill for disposal. Currently, only the Putnam landfill accepts ash for disposal. In the past, we had several ash landfills and there was an ash transfer station in North Haven that had transported the ash to an out-of-state landfill via truck/railroad.

All types of sludges typically go to a landfill or in some cases a composting facility. Currently, CT still has a few special waste landfill for industrial sludges located in Waterbury, Berlin, New Milford and Stonington.

Biomedical waste is a special waste and regulated since 1990. The only one biomedical waste facility in Connecticut at this time is a transfer stations located in Middletown (Steri-cycle) and it transports all its waste out-of-state.

NOTE: Asbestos was included in the special waste definition back in the early 1970's when it was not known that it had hazardous waste characteristics. Since the Solid Waste Management regulations have not been amended, asbestos is still defined and managed in CT as a special waste.

## **Hazardous Waste Management**

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. Hazardous waste makes up the last 10% of the total waste stream. All types of hazardous waste can have one or more of the following characteristics:

**TOXIC** - poisonous to environment/humans & animals

**REACTIVE** - can causes chemical reactions

**IGNITABLE** - can cause fires/explosions

**CORROSIVE** - acid/alkaline & can cause burns to skin, eyes, and other tissues

Two types of hazardous waste: a) Industrial/commercial hazardous waste  
b) household hazardous waste

Most industrial/commercial hazardous waste must be transported out-of-state using a "Manifest" since Connecticut does not have an EPA permitted disposal facility (landfill and/or incinerator). Connecticut does have three commercial "Treatment, Storage and Disposal Facilities (TSDFs)" that are permitted to chemically/physically "treat" certain types of hazardous wastewaters before discharge into a sanitary sewer system (these are regulated and permitted under the Clean Water Act).

Household hazardous waste (HHW), on the other hand, is NOT regulated under the Hazardous Waste Regulations since this type of material is generated by residents in small quantities. (It is actually classified as MSW by DEEP). Towns are required, however, to get DEEP approval when conducting a Household Hazardous Waste Collection Day or apply for a permit to establish a

Regional HHW Collection Center. HHW includes, but is not limited to: paint, stains, waste oil, antifreeze, pesticides, herbicides, and cleaning products.

## **Collections For Prescription Medicines and Over-The-Counter (OTC) Products**

Unwanted medication should NOT be flushed down the toilet or sink!

Although using the toilet or sink prevents someone from accidentally taking the medications, disposing of them in this way causes water pollution and has adverse effects on septic systems, sewage treatment plants, fish and other aquatic wildlife. Trace amounts of all kinds of drugs have also been found in some drinking water supplies because they pass through septic systems and sewage plants untreated.



Medicines cannot be brought to Household Hazardous Waste collections. Some towns or pharmacies occasionally offer special collections where residents can bring prescription medicines, veterinary medicines and over-the-counter products. But they are not regularly scheduled and are sometimes limited to residents of the sponsoring town.

Therefore, in CT, there are currently two ways that households can dispose of unwanted medications: (1) put them in the trash following these instructions for safe disposal (when burned at RRFs, these medications are completely destroyed); or (2) bring them to a one-day medicine collection sponsored by an organization, town or business.

## **RESPONSIBILITIES OF A CT SOLID WASTE LANDFILL AND/OR TRANSFER STATION OPERATOR**

- ✓ OPERATE SOLID WASTE FACILITY IN ACCORDANCE WITH CT GENERAL STATUTES AND REGULATIONS
- ✓ OPERATE SOLID WASTE FACILITY IN ACCORDANCE WITH DEEP PERMITS AND SITE OPERATIONAL PLAN
- ✓ PERSONAL & PUBLIC SAFETY
- ✓ SITE SECURITY
- ✓ PROTECT THE ENVIRONMENT BY CONTROLLING DUST, ODOR, LITTER, NOISE, EROSION, VECTORS, ETC.
- ✓ MAINTAIN DAILY RECORDS, OPERATE SCALE HOUSE, CHECK LOADS, ISSUE/CHECK FOR VEHICLE PERMITS, COLLECT FEES AND COMPLETE DAILY/MONTHLY/QUARTERLY REPORTING FORMS
- ✓ PUBLIC RELATIONS AND EDUCATION/ASSISTANCE
- ✓ MINIMIZE LEACHATE, FIRES, CONTAMINATION OF RECYCLABLE LOADS, ILLEGAL DUMPING, GAS MIGRATION ETC.

- ✓ REPORT VIOLATIONS, PROBLEMS, EQUIPMENT BREAKDOWNS ETC. TO SUPERVISOR, DEEP AND/OR POLICE
- ✓ ENCOURAGE PUBLIC/HAULERS TO REDUCE/REUSE/RECYCLE, COMPOST AND REPAIR/DONATE OTHER ITEMS
- ✓ MAINTAIN AND REPAIR EQUIPMENT
- ✓ TRAFFIC CONTROL
- ✓ REPORT LANDFILL CLOSURES, APPLY FINAL COVER & PLANT VEGETATION
- ✓ ORGANIZE SWAP SHOP/MATERIAL EXCHANGE AREAS
- ✓ SUPERVISE OTHER EMPLOYEES ON-SITE
- ✓ ADMINISTER FIRST AID/CPR AND/OR CALL 911
- ✓ STOP SCAVENGING IN DANGEROUS LOCATIONS

{NOTE: operator's responsibilities may NOT be limited to those listed above}

## **GENERAL SAFETY GUIDELINES**

1. Use your personal protective/safety gear – hardhat, gloves, boots, safety glasses, hearing protection, fluorescent vests, uniforms, back belts, respirators, dust masks, two-way radio, seat belts, lock-out/tag-out devices, back-up warning alarms, first aid kits, fire extinguishers etc.
2. Try to watch each hauler unload, if possible.
3. Never accept any liquids or materials with free-draining liquids without proper written approval.
4. Do not accept any drums/barrels that are sealed.
5. Do not compact any pressure cylinders unless the valve has been removed or the cylinder has a visible hole.
6. Suspicious containers should never be opened to investigate. Let the hauler prove it does not contain hazardous materials and/or call the fire department and DEEP.
7. Get to know the residents/haulers and note what they usually bring in for trash and recyclables. Keep an eye out for those residents who will sneak something unacceptable into your facility or some item into the wrong container.
8. If a spontaneous fire/hot load occurs, stay up wind from smoke and fumes. Do not try to extinguish it yourself unless you are absolutely sure what is burning and how to extinguish it properly. Do you have a correct type of extinguisher for that type of fire? Call the fire department and DEEP to report.

9. Verbal/written warnings should be given to anyone who violates one of your safety rules/operational policies. Record incident in a log book (date, time, permit number, name, address, license plate number, offense, and action taken etc.) Photograph unacceptable items, report offenses to supervisor/DEEP if necessary. Impose fines, permit suspensions or other deterrents to residents/haulers who repeatedly violates your rules/policies.
10. Installing signs, promoting good traffic flow and having extra personnel on duty will also help operate a safe solid waste facility.

**HEAVY EQUIPMENT SAFETY**  
**AT THE LANDFILL AND TRANSFER STATION**

1. Check equipment before starting for necessary maintenance and/or repairs.
2. Wear ear and eye protection, use steps, handrails and seat belts.
3. Inspect the area before moving equipment for unsafe conditions/people.
4. Keep bucket/blade low while moving for greater visibility.
5. Avoid side-hill travel on steep landfill slopes.
6. Never disconnect back-up warning alarms.
7. Do not crush sealed containers.
8. Avoid excessive speeds and erratic driving.
9. Equipment should be equipped with a two-way radio, fire extinguisher and a first aid kit.
10. Never leave running equipment unattended.
11. Avoid overhead power lines and remember to “Call Before You Dig”.
12. Work in a separate area, away from people.
13. Require co-workers to wear fluorescent vests and assist in “spotting”.
14. When pushing cover over a surface fire, never place the equipment directly over the flames!
15. Avoid operating equipment near unstable areas (overhangs, ditches etc.).

## LANDFILL CLOSURE

According to regulations, the landfill owner/operator must notify CT DEEP within 60 days before they close. A CT DEEP inspector will conduct an inspection of the site and require a closure plan to be completed. As-built plans need to be submitted to DEEP for review and a description of the site needs to be placed in the land records at the Town Hall. The owner/operator of the landfill is responsible for that site for 20-30 years after closure (monitoring for leachate/gases/fires, maintaining slopes & vegetation and for submitting reports).

During final closure, the application of final cover is applied (24 inches), compacted and seeded for vegetation. Quality soil should be used so vegetation has a better chance to grow. Have the soil tested for pH, nutrients, etc. at the CT Agricultural Experiment Station or an Extension Service field office.

Choose the type of vegetation very carefully also. Vegetation (native grasses/wildflowers) should be shallow-rooted (less than 2 feet), have a dense network of roots (holds the soil together to reduce erosion), fast growing, gas resistant, drought resistant, hardy/perennial, inexpensive and have low maintenance. Trees and shrubs are not recommended because of their deep root systems and they are not as hardy as many native grasses and/or wildflowers.

Landfills that close can become “Resources” for the following:

- 1- Energy resource - methane fuel/electricity
- 2- Material resource through landfill mining - reclaiming recyclables/reusables/burnable wastes/soils/compost
- 3- Open Space - parks, playgrounds, golf/ski/sledding
- 4 - Real Estate - buildings can be constructed upon closed landfills with proper DEEP approvals, special foundations/gas detection & venting systems etc.
- 5- Bioreactor landfills – recirculation of leachate/gases to increase decomposition reclaiming some landfill capacity
- 6- Plasma Arc Technology, which uses high temperature (14,000 degrees) torches to melt “waste” into “rock-like” material – future mining possible?



## **SOLID WASTE (SW) PERMITS**

### **(2) PERMITS ARE REQUIRED FOR MOST SW FACILITIES:**

- CONSTRUCTION PERMIT
- OPERATION PERMIT

### **OTHER PERMITS WHICH CAN BE OBTAINED:**

- CLOSURE PERMIT (generally for landfills only)
- GENERAL PERMITS (recyclables, grass, paint & stain collection sites, beneficial use, electronics, municipal transfer stations, soil staging, & Commercial Transfer Station – pending 2013)

### **THE DEEP PERMIT PROCESS:**

- Application is completed by applicant
- DEEP conducts “completeness review” on application
- DEEP determines “consistency review/determination of need”
- Technical review of application
- DEEP recommends permit issuance or denial
- Public Notice with 30 day comment period
- Public Hearing if required
- DEEP issues Final Decision
- Public Notice of Final Decision
- Construction Permit issued
- DEEP inspection
- Operation Permit issued

### **APPLICATION REQUIREMENTS:**

1. General information – owner/operator/attorney names & addresses, facility name/address, etc.
2. Facility information – facility type, types of waste to accept/process, design capacity, estimated annual tonnage, acreage of site/facility, etc.
3. Submittal information – contact person/telephone number, professional engineer’s name/address/registration number, submittal checklist, etc.
  - ✓ Design criteria: access control, roads, loading/unloading, waste storage requirements, traffic control, tipping floor/pit, control of dust, odors, fire, vectors, noise etc.
  - ✓ Operating criteria: water discharges/any other DEEP permits needed, covered containers, dust control measures, agreements/contracts/deeds, Operation & Management or maintenance Plan (O&M Plan) - See section below.
  - ✓ Engineering criteria: area map, site map, detailed drawings and specifications of site structures and equipment, buffer zones, contour maps with various features within ½ mile of the facility (homes, sewer lines, underground utilities, wetlands, flood zones, etc.), grading/landscaping measures, sediment and erosion control, electrical plans, etc.
- 4) Application fees, “surety” may be required.
- 5) Applicant/owner/operator compliance history

**Operation & Management or Maintenance Plan (O&M Plan) -**

Operation and Management (O&M) Plan includes, but is not limited to, the following: description of daily operation (receiving, weighing or estimating, unloading, separating, storing, reloading etc.), number/size of containers, proposed O&M budget, towns/area served, expected quantities on a town by town basis, acceptable and unacceptable waste types, destinations of all transferred wastes and/or recyclables, management’s organizational chart, duties of employees on-site, certification requirements, operating hours, communication system, record-keeping, reporting requirements, maintenance schedule/costs/contracts, environmental controls, traffic flow, all equipment on-site, fire protection, emergency procedures, safety procedures.

**WHEN IN DOUBT, CHECK YOUR PERMITS/O&M PLAN!**

ALL SOLID WASTE FACILITY OPERATORS SHOULD HAVE COPIES ON-SITE FOR FIELD USE : ALL THEIR FACILITY PERMITS, THE “OPERATION AND MAINTENANCE PLAN”, SITE MAPS, and THIS OPERATOR MANUAL.

**THE DEEP INSPECTION:**

DEEP inspectors will regularly visit each solid waste facility to conduct a formal inspection. Inspection checklists used by the DEEP at landfills include the following:

Name of Facility: \_\_\_\_\_

Address: \_\_\_\_\_ Permit to Construct: \_\_\_\_\_

City/Town: \_\_\_\_\_ Permit to Operate: \_\_\_\_\_

Operated By: \_\_\_\_\_ General Permit Operation: \_\_\_\_\_

Waste Type: \_\_\_\_\_ Stormwater Permit: \_\_\_\_\_

\_\_\_\_\_ Discharge Permit: \_\_\_\_\_

\_\_\_\_\_ Inspected By: \_\_\_\_\_

Special Waste Approvals: \_\_\_\_\_ Accompanied By: \_\_\_\_\_

Recyclables: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

**Equipment on Site:**

Weighing Scale: \_\_\_\_\_

Control Booth Shelter: \_\_\_\_\_

Sanitary Facilities: \_\_\_\_\_

Communications: \_\_\_\_\_

Volume Reduction Equipment: \_\_\_\_\_

Landfill Gas Recovery/Flare: \_\_\_\_\_

**CHECKED ITEMS INDICATE VIOLATIONS**

1) CERTIFIED OPERATORS

\_\_\_\_\_ A. Present.

2) ACCESS

- \_\_\_\_\_ A. Sign with information required by regulation posted at entrance.
- \_\_\_\_\_ B. Lockable gates, fences.
- \_\_\_\_\_ C. All weather access road.
- \_\_\_\_\_ D. Limited to posted hours.

3) SCREENING

- \_\_\_\_\_ A. Provided for residents within 500'.

4) WORKING FACE

- \_\_\_\_\_ A. Width of working face adequate but not excessive (<150'/one area unless otherwise approved).
- \_\_\_\_\_ B. Litter controlled.
- \_\_\_\_\_ C. Waste compacted adequately (spread in layers less than 3 feet deep).
- \_\_\_\_\_ D. Equipment adequate for compaction, spreading and covering.
- \_\_\_\_\_ E. Alternative equipment contingency plan.
- \_\_\_\_\_ F. Recyclables prohibited from working face.
- \_\_\_\_\_ G. Hazardous wastes prohibited.
- \_\_\_\_\_ H. Scavenging prohibited.
- \_\_\_\_\_ I. Liquids prohibited.
- \_\_\_\_\_ J. (Paint filter test employed in decision as to liquidity.)

5) SPECIAL WASTE DISPOSAL

- \_\_\_\_\_ A. Combined disposal prohibited without approval.
- \_\_\_\_\_ B. Operator certified in wastes handled.
- \_\_\_\_\_ C. Materials limited to approved wastes and procedures.

6) ASBESTOS

- \_\_\_\_\_ A. Disposal in approved cell.
- \_\_\_\_\_ B. Properly contained/labeled.
- \_\_\_\_\_ C. Received separately from other waste.
- \_\_\_\_\_ D. Disposal approval accompanies each receipt.

7) RESIDUE DISPOSAL

- \_\_\_\_\_ A. Monocell maintained.
- \_\_\_\_\_ B. Adequately dewatered before received.
- \_\_\_\_\_ C. Delivery in leakproof/covered containers/trucks.
- \_\_\_\_\_ D. Records kept of cell used for each load received.
- \_\_\_\_\_ E. Wheelwash facilities provided/trucks frequently cleaned to prevent disbursement.

8) LINER

- \_\_\_\_\_ A. Liner/leachate collection/detection system installed as required/approved.
- \_\_\_\_\_ B. Run-off controlled, run-on prevented.
- \_\_\_\_\_ C. Leachate handled per permit conditions.
- \_\_\_\_\_ D. Sampling performed.
- \_\_\_\_\_ E. Tanks pumped.
- \_\_\_\_\_ F. Records maintained, submitted to DEEP.
- \_\_\_\_\_ G. Quarterly inspections conducted per permit conditions.
- \_\_\_\_\_ H. Inspections reports submitted to DEEP.
- \_\_\_\_\_ I. Does the most recent inspection accurately reflect site conditions.
- \_\_\_\_\_ J. Leak detection system monitored.
- \_\_\_\_\_ K. Reports of leakage detection submitted to DEEP.

9) COVER OPERATIONS

- \_\_\_\_\_ A. Ten days supply of cover material exists on site.
- \_\_\_\_\_ B. 6" Daily/weekly cover appears adequate.
- \_\_\_\_\_ C. 1'Intermediate cover applied to areas not to be used for greater than 9 mths.
- \_\_\_\_\_ D. 2'Final cover and vegetation established on all completed grades.
- \_\_\_\_\_ E. Alternative cover used as approved.

10) GRADING

- \_\_\_\_\_ A. Ponding of precipitation prevented.
- \_\_\_\_\_ B. Slope grades adequate. (sides <1 on 3, top >4%)
- \_\_\_\_\_ C. Erosion, washouts, slumping controlled.
- \_\_\_\_\_ D. Leachate seeps prevented.
- \_\_\_\_\_ E. Fill limit markers installed.
- \_\_\_\_\_ F. Waste maintained within vertical and lateral permit limits.

11) EROSION CONTROLS

- \_\_\_\_\_ A. Stormwater Management Plan approved/implemented for 24hr. 25yr-storm.
- \_\_\_\_\_ B. Silt fences, haybales, other erosion controls.
- \_\_\_\_\_ C. Siltation basin in good repair.

12) DISRUPTION

- \_\_\_\_\_ A. Written approval for any disruption.
- \_\_\_\_\_ B. Conducted in accordance with approval details.
- \_\_\_\_\_ C. Disposal in conformance with regulatory requirements.

13) VECTOR CONTROL

- \_\_\_\_\_ A. Conditions maintained to prevent harboring, feeding, and breeding.
- \_\_\_\_\_ B. Controlled as needed.

14) AIR QUALITY

- A. Dust controlled.
- B. Odor controlled.
- C. Open burning permits obtained.
- D. Burn pile limited to allowed material.
- E. Fire extinguished end of day.

15) FIRE PROTECTION

- A. DEEP notified of any fires.
- B. Adequate equipment provided to fight/extinguish fires.
- C. Continued until extinguished/disruption repaired.

16) WASTE COLLECTION AREAS

- A. Containers removed when full.
- B. Litter controlled.
- C. Adequately staffed.
- D. Recyclables handled. (Complete Recycling center checklist.)

17) SCRAP TIRES

- A. Storage adequate/prompt removal.
- B. Legal site used for ultimate disposal.

18) DECOMPOSITION GASES

- A. Monitored in on site structures.
- B. Monitored at property line where needed.
- C. Gas recovery/migration control system maintained as approved.

19) GROUNDWATER AND SURFACEWATER MONITORING

- A. Monitoring wells in good condition and locked.
- B. Monitoring performed per permit locations/schedule/parameters.
- C. Reports submitted per permit conditions.

20) RECORD KEEPING

- A. Regional sites maintains daily records of measured estimated wastes received from towns, other sources, reported quarterly to DEEP.
- B. Regional sites annual topography submitted to DEEP. (Comparison to permit grades, defines remaining capacity)
- C. All sites maintain daily records of waste recycled, submit quarterly reports to DEEP.

21) SURETY

- \_\_\_\_\_ A. Posted if required for closure, and post-closure maintenance and monitoring for 30 years.
- \_\_\_\_\_ B. Annual updates submitted.
- \_\_\_\_\_ C. Posted for remedial activities if required.
- \_\_\_\_\_ D. Meet Corporate or Local Government Guarantee.

**ADDITIONAL PART 258 LANDFILL CRITERIA FOR MSW/RESIDUE LANDFILLS**

22) SITING

- \_\_\_\_\_ A. Compliance demonstrated/submitted with airport, floodplain & unstable area criteria.

23) HAZARDOUS WASTE INSPECTIONS

- \_\_\_\_\_ A. Staff trained.
- \_\_\_\_\_ B. Inspections performed.
- \_\_\_\_\_ C. Recorded in operating record.

**INSPECTION FORMS USED AT TRANSFER STATIONS INCLUDE THE FOLLOWING:**

**TYPES OF WASTE: MSW**

**BW**

**RECYCLABLES**

SPECIAL: \_\_\_\_\_

OTHER: \_\_\_\_\_

CAPACITY: \_\_\_\_\_

**EQUIPMENT ON SITE:**

- 1) WEIGHING SCALE: \_\_\_\_\_
- 2) CONTROL BOOTH SHELTER: \_\_\_\_\_
- 3) SANITARY FACILITIES: \_\_\_\_\_
- 4) COMMUNICATIONS: \_\_\_\_\_
- 5) BALER: \_\_\_\_\_
- 6) HOPPER: \_\_\_\_\_
- 7) CRANE/COMPACTER: \_\_\_\_\_
- 8) PACKER CONTAINER: \_\_\_\_\_
- 9) ROLL-OFF CONTAINERS: \_\_\_\_\_
- 10) FRONT-END LOADER: \_\_\_\_\_
- 11) WOOD CHIPPER: \_\_\_\_\_
- 12) SHREDDER: \_\_\_\_\_
- 13) OTHER EQUIPMENT: \_\_\_\_\_

**RECYCLABLES HANDLED**

- CORRUGATED: \_\_\_\_\_
- KRAFT PAPER: \_\_\_\_\_
- GLASS/COLOR: \_\_\_\_\_
- NEWSPRINT: \_\_\_\_\_
- OFFICE PAPER: \_\_\_\_\_
- CANS: \_\_\_\_\_
- APPLIANCES: \_\_\_\_\_
- FERROUS: \_\_\_\_\_
- OIL/ANTIFREEZE: \_\_\_\_\_
- STORAGE BATTERIES: \_\_\_\_\_
- TIRES: \_\_\_\_\_
- LEAVES: \_\_\_\_\_

Ni-Cad BATTERIES: \_\_\_\_\_  
OTHERS: \_\_\_\_\_

**ITEMS CHECKED (X) INDICATE VIOLATIONS**

1) Enclosure

\_\_\_\_\_A. Roofed and/or enclosed on all sides to control litter & dust.

2) Working Area

\_\_\_\_\_A. Restricted to approved area & volume of solid waste and recyclables in enclosed area.

3) Storage

\_\_\_\_\_A. Waste within property stored < 48 hours unless authorized by Commissioner.

\_\_\_\_\_B. 24 hour storage for TS capacity if greater than 100 tons per 8 hour day.

4) Facility Equipment

\_\_\_\_\_A. Equipment as authorized by permit.

5) Restriction on certain wastes

\_\_\_\_\_A. Hazardous waste and special waste excluded unless approved by Commissioner.

6) Recyclables

\_\_\_\_\_A. Approved number and volume of containers on site according to permit.

\_\_\_\_\_B. Removed per approved schedule when filled.

\_\_\_\_\_C. Waste loads inspected.

\_\_\_\_\_D. Hauler violations reported to generating town.

7) Noise Control

\_\_\_\_\_A. Off-site noise controlled per regulations/general permit

8) Maintenance

\_\_\_\_\_A. Provisions made for routine maintenance.

9) Shutdown

\_\_\_\_\_A. An alternative method approved in case of shutdown of TS.

\_\_\_\_\_B. Shutdowns reported within 24hrs. to DEEP.

10) Solid Waste Transfer

- \_\_\_\_\_ A. Limited to approved rate of use.
- \_\_\_\_\_ B. Transferred to legal solid waste facilities/markets.

**BEST MANAGEMENT PRACTICES FOR ALL SOLID WASTE FACILITIES**

1) **WASTE OIL/ANTIFREEZE**

- \_\_\_\_\_ A. Approved tank.
- \_\_\_\_\_ B. On an impervious containment area above ground equal in volume to the capacity of the storage tank.
- \_\_\_\_\_ C. Spillage contract.
- \_\_\_\_\_ D. Closed at all times except when in use.
- \_\_\_\_\_ E. < 1000 gallons of waste oil stored at the facility at any one time and containers delivered for deposit immediately dumped in tank or stored in containment area.
- \_\_\_\_\_ F. An employee of Recycling facility pours waste oil in collection containers.
- \_\_\_\_\_ G. Mixing of liquids prohibited.
- \_\_\_\_\_ H. Each container labeled with words "WASTE OIL" or "SPENT ANTI-FREEZE"
- \_\_\_\_\_ I. Storage area for tanks used to store waste oil or spent anti-freeze provided with a roof.
- \_\_\_\_\_ J. Used oil filters collected in 55-gallon drums made of plastic that is kept sealed except when adding used filters.
- \_\_\_\_\_ K. Number of 55-gallon drums containing used oil filters < 2 at any one time.

2) **BATTERIES**

- \_\_\_\_\_ A. Storage area for spent lead-acid batteries provided with a roof, an impervious base treated with a compatible sealant, berms so as to prevent run-on and a spill containment system.
- \_\_\_\_\_ B. Stored in a manner preventing rupture of the battery case, leakage or short circuits.
- \_\_\_\_\_ C. Storage near solid waste protected by means of a dike, berm or wall to prevent fire, explosions, gaseous emissions, leaching or discharge.

3) **SCRAP METAL**

- \_\_\_\_\_ A. All scrap metal appliances containing CFC's stored on an impervious surface.
- \_\_\_\_\_ B. Less than 30 scrap metal appliances containing CFC's are stored.
- \_\_\_\_\_ C. Scrap metal appliances with or without removed CFC's placed in a container within 24 hours.



4) **BRUSH**

- \_\_\_\_\_ A. Less than 2500 cubic yards of unprocessed brush accumulated at the facility at any one time. Maximum height of unprocessed brush < 25 feet.
- \_\_\_\_\_ B. < 500 cubic yards of processed wood chips stored at the facility at any one time. Maximum height of pile < 15 feet.
- \_\_\_\_\_ C. Noise, dust, fumes, smoke, vibrations and odors < background levels thereof at any boundary of the property on which the facility is located.
- \_\_\_\_\_ D. Brush chipping operations on top of closed landfills done on a constructed pad constructed of an additional 2' of compacted, well drained soil. The pad has a 3-5% slope to promote drainage.

5) **LEAF COMPOSTING**

- \_\_\_\_\_ A. Operation permitted.
- \_\_\_\_\_ B. Operation conforms with facility plan of design.
- \_\_\_\_\_ C. Windrows turned regularly.
- \_\_\_\_\_ D. Prevention of water ponding or surface expression of leaf liquor.
- \_\_\_\_\_ E. Off-site odor prevented.
- \_\_\_\_\_ F. Reporting of DEEP per requirements.

**DEEP REPORTING REQUIREMENTS:**

**QUARTERLY TONNAGE REPORTS:**

All solid waste facilities are required to report the following to DEEP on monthly forms but submitted on a quarterly basis:

- ✓ Types of waste/recyclables accepted at your site
- ✓ Town(s) generating the waste/recyclables accepted at your site
- ✓ Tonnages/volumes of each waste type/recyclable item
- ✓ Destinations of each waste type/recyclable item
- ✓ Person's name/signature who is legally responsible for the submitted data

### **MUNICIPAL ANNUAL RECYCLING REPORTS:**

To measure the success of Connecticut's recycling programs, each municipality must provide the DEEP an annual recycling report. The data submitted in these reports is entered into a master database and analyzed to generate the information necessary to evaluate and track our progress in recycling and waste reduction.

Pursuant to Sec.22a-220(h) of the Connecticut General Statutes, on or before August 31, each municipality must submit an annual report to the DEEP on a form provided by Commissioner of Environmental Protection describing the measures taken during the preceding year to meet its obligations under this section. The reporting form may be amended from time to time and shall include, at a minimum, information on recycling promotion, compliance with separation requirements, amount of each recyclable delivered to a recycling facility, and the amount of solid waste delivered to a solid waste facility for disposal.

For additional information regarding reporting, call Judy Belaval @ DEEP – (860) 424-3237 or Paula Guerrero at (860) 424-3334.

### **INCIDENTIAL REPORTING TO DEEP:**

- ✓ Unacceptable waste/illegal dumping incidents//hazardous wastes
- ✓ Any type of fire/explosions
- ✓ Any equipment breakdown
- ✓ Shutdowns/closures
- ✓ Changes in design/operation/management – permit modifications/amendments may be required
- ✓ Oil & chemical spills
- ✓ Operator training/certification is needed
- ✓ Safety and/or Operational concerns being ignored by town/company

### **SOLID WASTE FACILITY PROBLEMS & TROUBLESHOOTING**

#### **PUBLIC RELATIONS:**

Perhaps the number one problem for Municipal Solid Waste Facilities is “Public Relations”. Dealing with the some of the public can be problematic especially when things change at the facility (i.e. fees are either implemented or increased). They may express their displeasure in many forms (arguing, yelling, threatening etc) and the solid waste facility operators must restrain themselves from “reacting” in a similar fashion.

For example, when someone screams “Do you know how much I pay in taxes? I pay your salary!” - do not get angry, do not react, just let them vent. The solid waste facility operator should try to listen/understand their position and then express empathetic phrases such as, “I understand you are

upset about....”; “I only work here, I did not make the rules....”; Try your best to calm the person down by explaining why the changes were necessary and suggest they call the “boss”.

However, be aware that physical violence (assault) has occurred at several solid waste facilities. If an operator is threatened, it is recommended that you warn that person that you will call the police. If the threats continue, call the police and file a complaint.

#### SCAVENGING:

Scavenging is prohibited by regulations primarily for safety reasons. It is not safe, nor wise for people (this includes solid waste facility operators as well!) to jump into roll-off containers to get an item that they desire. However, it is highly recommended that towns and companies can establish a safe location/structure on-site (“Swap Shop” or “Material Exchange”) to place and store items that someone could possibly reuse, repair or refurbish. Towns have saved hundreds and thousands of dollars in disposal costs by establishing a “Swap Shop” on-site. For guidance on how to start a Swap Shop: <http://cetonline.org/Publications/SwapDepotStarterKit.pdf>

#### ACCIDENTS/INJURIES/LAWSUITS:

Solid waste facility operators are responsible for their own safety and must wear their personal protective equipment (boots, gloves, safety glasses, hearing protection etc). They must also be trained in the operation and maintenance of any heavy equipment or machines on-site. Management should conduct regular safety meetings and training.

Solid waste facility operators are responsible also for educating the residents and haulers who utilize their facility about proper procedures (where to park, how to unload, where to place various items, etc). Posting signs can help but do not expect everyone to read or obey them. Operators must enforce the rules by approaching people who do not follow the proper procedures.

Unfortunately, accidents do occur and serious injuries have been reported at solid waste facilities. There have also been several deaths reported over the years. If someone gets hurt at your facility, you can practically expect a lawsuit. To avoid accidents, injuries and lawsuits – be certain that your site is safe and rules are followed. Operators must watch out for unsafe actions/conditions on-site and report them to management for immediate correction. Operators may report unresolved issues to Conn OSHA and/or DEEP.

#### VANDALISM/TRESPASSING/THEFT:

After hours, good fencing and gates will keep most people out. However, if someone wants access for whatever reason, he/she will find a way. Many towns and companies have posted signs, installed cameras and/or security alarms to reduce the amount of unauthorized access. Inform police about the problem and ask them to patrol more often. If someone is caught and prosecuted, be sure to publicize the incident & the consequences (fines, retribution etc) to get the word out to others that security has increased.

ILLEGAL DUMPING: Towns and companies must have a program to monitor “known dumping sites” in order to catch illegal dumpers in action and when arrests are publicized, dumping will be reduced. Consider using signs, cameras, fines, patrols, fences and towns may even confiscate vehicles used in illegal dumping under Section 22a-250a of the Connecticut General Statutes:

**Section 22a-250a - Forfeiture of vehicles used in violation of certain environmental laws.** (a) When any vehicle used as a means of disposing of hazardous waste without a permit required under the federal Resource Conservation and Recovery Act of 1976, or as a means of committing a violation of any of the provisions of section 22a-208a, section 22a-208c, subsection (c) or (d) of section 22a-250 or section 22a-252, has been seized as a result of a lawful arrest or lawful search, pursuant to a criminal search and seizure warrant issued under authority of section 54-33c, which the state claims to be a nuisance and desires to have destroyed or disposed of in accordance with the provisions of this section, the judge or court issuing any such warrant or before whom the arrested person is to be arraigned shall, within ten days after such seizure, cause to be left with the owner of, and with any person claiming of record a bona fide mortgage, assignment of lease or rent, lien or security interest in, the vehicle so seized, or at his usual place of abode, if he is known, or, if unknown, at the place where the vehicle was seized, a summons notifying the owner and any such other person claiming such interest and all others to whom it may concern to appear before such judge or court, at a place and time specified in such notice, which shall be not less than six nor more than twelve days after the service thereof. Such summons may be signed by a clerk of the court or his assistant and service may be made by a local or state police officer, state marshal, constable or other person designated by the Commissioner of Environmental Protection. It shall describe such vehicle with reasonable certainty and state when and where and why the same was seized.

(b) If the owner of such vehicle or any person claiming any interest in the same appears, he shall be made a party defendant in such case. The Attorney General, upon request of the Commissioner of Environmental Protection, shall appear and prosecute such complaint and shall have the burden of proving all material facts by a preponderance of the evidence.

(c) If the judge or court finds the allegations made in such complaint to be true and that the vehicle has been used in violation of any provision of subsection (b) of section 22a-131a, section 22a-208a, section 22a-208c, subsection (c) or (d) of section 22a-250 or section 22a-252, he shall render judgment that such vehicle is a nuisance and order the same to be destroyed or disposed of in the discretion of the Commissioner of Environmental Protection. From the time the vehicle has been seized until such time as it has been destroyed or disposed of in accordance with law, it shall be kept at such place or places as designated by the Commissioner of Environmental Protection. Other state agencies shall cooperate with the Commissioner of Environmental Protection in connection with the transportation and storage of vehicles seized under this section. If any such vehicle is subject to a bona fide mortgage, assignment of lease or rent, lien or security interest, such vehicle shall not be so destroyed or disposed of in violation of the rights of the holder of such interest. When any vehicle has been declared a nuisance and condemned under this section, the court may also order that such vehicle be sold by sale at public auction in which case the proceeds shall become the property of the state and deposited in the General Fund; provided any person who has a bona fide mortgage, assignment of lease or rent, lien or security interest shall have the same right to the proceeds as he had in the vehicle prior to sale. Final destruction or disposal of such vehicle shall not be made until any criminal trial in which such vehicle might be used as evidence has been completed.

(d) If the judge or court finds the allegations not to be true or that the vehicle has not been used in violation of any provision of subsection (b) of section 22a-131a, section 22a-208a, section 22a-208c, subsection (c) or (d) of section 22a-250 or section 22a-252, he shall order the vehicle returned to the owner forthwith and the party in possession of such vehicle pending such determination shall be responsible and liable for such property from the time of seizure and shall immediately comply with such order.

(e) Failure of the state to proceed against such vehicle in accordance with the provisions of this section shall not prevent the use of such property as evidence in any criminal trial.

**LITTER:** Blowing litter should be picked up at the end of each working day. All loads & containers on-site should be covered to prevent litter. Fencing, berms and other barriers may be used to prevent litter from blowing off-site.

**DUST:** Water can be sprayed on unpaved roadways to keep the dust suppressed; calcium chloride can also be applied. Paved roads can be mechanically swept on a regular basis or as needed. Dust masks can be worn. Speed limits should be enforced.

**NOISE:** Use trees, fences and other berms to limit equipment & facility noise traveling off-site. Only operate facility during your permitted hours of operation and never disconnect back-up warning alarms on trucks or heavy equipment. Operators should wear hearing protection.

**ODORS:** Garbage/MSW containers should be compacted, covered and removed frequently. However, State Regulations require MSW to be removed “every 48 hours except during a Holiday weekend when 72 hour storage is allowed”. Odors from trucks, equipment and traffic (exhaust fumes) and gases escaping from an adjacent landfill (carbon dioxide, methane, hydrogen sulfides, mercaptans etc) should be controlled using Best Management Practices (BMPs). Composting operations & areas can also produce odors that some people may consider offensive; Odors should not be detectable off site by neighbors. Masking agents and deodorizers can also be utilized.

**VECTORS:** Vectors include any insect, rodent, bird or any other animal that is attracted to your solid waste facility by either the odors (a great feeding area) or the location (a nice place to raise a family). Facilities should use proper covers, storage, poison/traps, and exterminators. Do not allow the ponding of water especially in exposed tire piles to prevent mosquito breeding areas. Vectors can transmit infectious diseases such as: rabies, Lyme disease, encephalitis, etc. Some solid waste facilities have “pet cats” on-site to manage any rodents or birds; this option is acceptable as long as these cats do not become vectors – Someone must take care of these “pets” by neutering/spaying them and providing shelter, food and veterinarian care (annual vaccinations).

**STORMWATER/LEACHATE:** Rain, snow and ice melt create stormwater. Stormwater must be managed properly on-site by preferably reducing its contact with solid waste materials. Any liquid coming in contact with solid waste materials is called “leachate” (garbage juice). Some facilities collect leachate or contaminated stormwater in underground storage tanks for proper treatment before disposal. At a minimum, operators are responsible for covering loads and containers whereas some facilities are fully enclosed (with a roof and walls). Economically, it makes sense to cover your waste containers to prevent adding unnecessary water weight that will only increase your hauling costs/tipping fees – keep those oversized MSW items (carpet, sofa, mattresses) as dry as possible.

**FIRES:** Any fire that occurs on-site must be reported to DEEP immediately. Operators are responsible for fighting fires, must be trained by their employer and extinguishers and/or a water source and a reliable communication device (cell phone, radio, landline) must be on site; Underground fires, common at landfills, should not be disturbed – operators should look for an air vent (steep eroded side slope) and fix in order to smother the fire. Operators must watch for hot loads, spontaneous combustion and other possible issues such as explosions, arson and people smoking in potentially dangerous areas.

**LACK OF PERMITS/O&M PLANS/CERTIFIED OPERATORS:** At least ONE certified operator must be on-site at all times during operating hours; not everyone must be certified unless that is your town/company policy. DEEP Solid Waste Inspectors will ask to speak to a certified operator and will ask to see the Facilities permits, Operation & Maintenance Plan, Site Map etc (all

are required to be on-site). Having a copy of this Operator manual on-site is also highly recommended (hard copy and/or electronic version).

**UNACCEPTABLE WASTE:** Whenever an unacceptable waste comes into your facility, you must refuse to accept it and most importantly inform the resident/hauler where they must take it for disposal. Failure to educate them could result in the illegal dumping of that waste. When in doubt where something should be taken, call your supervisor or DEEP to inquire. If an unacceptable waste is found dumped, the operator must record the incident, must segregate the waste to an appropriate area or container on-site for temporary storage before it is transferred to a permitted disposal site.

**FAILURE TO RECORD & REPORT:** Every Solid Waste facility is required to keep records and to report on a quarterly basis; annual recycling reports are required also for municipalities. DEEP needs these reports to calculate recycling & disposal rates, record destinations of materials and for future solid waste planning. Companies and towns will receive a Notice of Violation (NOV) for failure to keep records and/or report as required; or incidentally when a fire, injury, death etc has occurred on site.