
SLT CONSTRUCTION CORPORATION

Operation and Maintenance Plan

Recycling, Composting or Conversion (RCC)
Operations

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1. Overview

This Operations and Maintenance Plan has been developed in accordance with the requirements of 310 CMR 16.05 to describe how operation and maintenance (O&M) will be performed at the proposed 250 ton per day Asphalt, Brick, and Concrete (ABC) recycling facility in Plympton, Massachusetts. This plan is intended to complement and provide additional information for SLT Construction Corporation's (SLT) application for a *Recycling, Composting, or Conversion (RCC) Permit*, provide SLT personnel with a guide and reference manual for the operation of the facility, and to establish and maintain compliance with solid waste regulations.

The facility has been designed to operate in a manner intended to protect human health and the environment. Strict operational procedures will be followed at all times, in accordance with this Operation and Maintenance Plan and all federal, state, and local requirements.

This document generally follows the format of the Massachusetts Department of Environmental Protection (MassDEP) RCC Permit Application BWP SW 46 and 310 CMR 16.05.

2. Site Information

2.1 Location

The proposed SLT facility is located immediately east of the intersection of State Highway Route 44 and Spring Street on the border of Plympton and Carver in Massachusetts. The entire Site includes two contiguous parcels of land owned by RPBP, LLC. with a total combined acreage of approximately 24.3 acres.

The Site is located in a topographic depression resulting from historic sand and gravel mining operations. The proposed ABC recycling area is undeveloped and consists of loose sand and gravel. The Site borders Route 44 to the north and west, a solar farm to the east and south, and Rickets Pond and Rickets Pond Business Park (under development) to the south with Spring Street beyond. An 80-foot utility easement runs north to south bisecting the easterly portion of the Site. The property vicinity is characterized as moderately populated industrial use. The property has previously been used for sand and gravel mining operations.

The eastern portion of the Site contains approximately 50,200 square feet of wetlands and associated buffer zone. The northern portion of the Site is partially located within a Zone II associated with a well located 1,800 feet northwest of the Site.

2.2 Material to be Accepted

SLT anticipates accepting 250 tons per day of clean asphalt, brick, and concrete (ABC) rubble from various construction, renovation, and demolition projects. Annual intake shall not exceed 80,000 tons. A maximum of 18,000 tons gross unprocessed and processed material is permitted to be stored on-site at one time.

All accepted materials will be inert and nonreactive, presorted and source-separated at the point of generation. Incoming material shall be clean, free from paint or other coatings, and not impregnated with other chemicals or substances. Materials containing greater than *de minimis* levels of organic material or solid waste will not be accepted. Materials contaminated with any amount of asbestos or hazardous waste will not be accepted. Demolition projects are required to be assessed for and abated of asbestos containing materials.

2.3 Material Management

ABC rubble is generated during construction, renovation, and demolition projects. Clean ABC is sorted into dump trailers or roll-off containers at the project site. Only uncoated and unimpregnated ABC will be selected for transport to the facility. Suspected asbestos-containing materials must be tested by a licensed asbestos inspector and confirmed to be asbestos-free before loading for transport to the facility. When materials are sourced from demolition jobs subject to MassDEP AQ-06 notification requirements, the notification form and supporting documents must be provided to the facility.

Upon arrival at the facility, the separated ABC loads will again be visually inspected from a raised platform for unacceptable material. If unacceptable material is identified, the material will be diverted to the appropriate waste pile or container for future disposal. If diversion is overly difficult or impractical, the entire load will be rejected. Once accepted, the material will be dumped and consolidated into the appropriate stockpile by support equipment, including excavators and front-end loaders. Records will be made of all incoming loads and will include the date, time of entry, vehicle type and registration, and load weight. Rejected loads and diverted wastes will be noted. The total weight of incoming materials will be estimated on a daily basis from the hauling capacity of vehicles transporting the materials.

Raw materials from the stockpiles will be loaded into crushing equipment by front-end loader or excavator. Crushing equipment will include a jaw crusher equipped with a scrap magnet and dust suppression spray bars and onboard water pump, and a track-mounted cone crusher. These units will be run in series. Raw materials will be fed into the jaw crusher to reduce the aggregate materials down to 2 feet minus, then fed into the cone crusher system for further reduction to 6-inch minus or less. The product will then be screened through mobile scalpers, and any material that does not pass through the first screen will be rerouted back through the crushers. Mobile conveyors will move processed material to the appropriate stockpile. Materials will be kept separate throughout the intake, stockpiling, and crushing processes to generate a final product consisting of solely crushed asphalt, brick, or concrete, free of other materials.

If incidental debris is encountered, it will be separated out and stored in roll-off containers for proper disposal. Rebar, remesh, and other metals collected by the crushers' scrap magnets will be stored for future recycling. Processed material will be conveyed to appropriate stockpiles for sale and distribution.

The requested permitting capacity under this application is 250 tons per day of inbound unprocessed ABC material, with a maximum of 80,000 tons annually. There will be three stockpiles for unprocessed materials and three for crushed and screened materials. Each stockpile will store up to 3,000 tons of material, approximately 1,500 cubic yards. The piles have been estimated to have a maximum height of

15 feet, a slope of about 3H:1V, and approximate footprint area of 7,000 square feet. The maximum quantity of material stored on-site at any time will not exceed 18,000 tons (gross processed and unprocessed). In no case will material from any given load remain on the property for longer than one year.

The designated stockpile areas will be separated with concrete blocks and/or jersey barriers to establish stockpile limits. Tracking of quantities of materials will occur by either measuring the height and base of the piles and/or through use of SLT's GPS survey and/or drone survey capabilities. SLT's GPS survey and/or drone survey capabilities will also be used on a routine basis to verify quantities estimated by measuring the height and base of the piles. In addition, survey data combined with inbound and outbound tonnage receipts can be used to establish a waste density, which can then be used to provide SLT an additional means of estimating on-site volumes and for maintaining on-site material quantities at or below the permitted not-to-exceed volume limit.

Two buildings are proposed as part of this project which include a scale house and maintenance building; however, recycling operations will be performed outdoors and not within either proposed building.

The site will operate Monday through Friday from 7:00am to 5:00pm and Saturday from 7:00am to 1:00pm, excluding holidays.

2.4 Equipment

Equipment to be used at the facility includes crushers, screeners, conveyors, front-end loaders, and excavators. In the event of an equipment failure, facility managers will coordinate the proper maintenance to fix and/or replace malfunctioning equipment. If there is sufficient loss of equipment to warrant a temporary closure or shutdown, SLT will not accept additional incoming material until damaged equipment can be repaired or replaced.

All equipment shall be inspected regularly to ensure proper operation as recommended by the equipment manufacturer. Equipment will be stored in designated equipment storage areas.

2.5 Access to Facilities and Security

The recycling operation is accessed through the adjacent southern parcel, located on the Carver side of the town line. Site access will include a maintained paved access roadway and lockable gate. Travel ways will be kept in good condition to prevent erosion and water trucks and/or alternative dust control measures will be utilized on an as-needed basis to mitigate the generation of dust.

Operating hours at the facility will be Monday through Friday from 7:00am to 5:00pm and Saturday from 7:00am to 1:00pm, excluding holidays. When the facility is closed and no SLT personnel are on-site, all equipment will be closed and locked with the keys removed and the site access gate will be locked.

Trucks will be routed from Route 44 to the site using a direct connection along Spring Street. Drivers leaving the site will be required to right on Spring Street to access Route 44 directly; no left turns leaving the facility (i.e. southbound trips from the facility) will be allowed on Spring Street. Any drivers caught

turning left / southbound onto Spring Street from the Site will be warned on first attempt. Repeat offenders will be banned from the Site.

2.6 Facility Personnel

Operations at the recycling facility will be supervised by a facility manager or designated representative and staffed with qualified individuals that have demonstrated expertise in the processing of recycled materials.

The operator will employ an adequate number of trained staff to ensure the facility is operated and maintained as designed and in accordance with all RCC permit regulations.

2.7 Accident Prevention and Safety

All facility personnel will be trained to work safely. Operational procedures and potential hazards that could be encountered while working at the facility will be included in safety training.

All facility personnel will be instructed in the principles of first-aid and safety and in the specific operational procedures necessary to prevent accidents. Adequate first-aid supplies will be provided at the facility at all times. The numbers for emergency medical care, ambulances, and the local fire department will be posted on signage at the facility.

MassDEP shall be notified within 24 hours of any incidents or disruptions that occur at the facility and could affect public health, safety, or the environment.

3. Quality Control/Quality Assurance

SLT will not knowingly accept contaminated materials. All source separated materials accepted must be free of unacceptable materials including organic waste, paper, glass, plastic, and other solid waste. All incoming loads are to visually inspected for unacceptable materials prior to entering the SLT facility and during processing operations.

3.1 Generator Aids

The facility will not accept any hazardous waste as defined in 310 CMR 30.000. Contractors seeking to import raw materials into the Site will be informed of the strict facility acceptance criteria. Only clean ABC materials will be accepted. ABC impregnated with other materials or containing any coatings or paints will not be accepted. Loads will be visually inspected and rejected if they contain other solid wastes, hazardous wastes, or suspected asbestos containing material. Signage posted at the facility will reiterate these policies to drivers. Disposal slips will include certification that the incoming ABC is free from unacceptable material and will be signed by drivers hauling the material. ABC material from demolition projects will only be accepted if an asbestos abatement contractor inspected the demolition project for asbestos containing material prior to the demolition. Any suspected asbestos containing material must be sampled and tested for asbestos at the project site prior to being loaded for transport to the facility.

All materials received at the site will be tracked and recorded. Generators shall be responsible for visually inspecting outbound loads at the point of generation for unacceptable materials prior to transport to the SLT facility. Any generator who repeatedly arrives at the facility with unacceptable materials or contaminated ABC will be banned from the facility.

3.2 Sampling and Testing

The SLT recycling facility will not accept any toxic substances. No toxic substances are expected to be associated with the inbound ABC rubble entering the facility. The potential for contamination with toxic substances will be mitigated through routine inspections, ongoing client interface, and direct involvement with the stockpiled materials during processing. All incoming loads will be visually inspected for any prohibited materials. Any suspected asbestos containing materials will be sampled and abated at the demolition site or point of generation prior to entering the facility. SLT personnel will be trained to identify and refuse loads containing unacceptable materials.

3.3 Toxics Control Plan

Facility personnel will be trained in the identification of suspect asbestos containing material and other hazardous materials. Any questionable loads, in which a determination regarding the presence of prohibited materials cannot be confidently reached, will be rejected. When materials sourced from demolition jobs subject to MassDEP AQ-06 are brought to the facility, the notification form and supporting documents will be required for acceptance.

4. Operations and Maintenance

4.1 Odor and Vector Control Plan

The facility will not accept any organic materials, only clean inorganic ABC rubble. ABC materials do not generate odors or provide attraction for vectors. If nuisance odors are reported on-site, facility management will identify and eliminate the source. If rodents or other vectors are found to be present, pest control services will be procured.

4.2 Environmental Monitoring and Sampling Protocols

Public nuisances such as odors and vectors are not anticipated to be generated at the Site, as no organic materials are to be accepted or processed at the facility. Clean ABC materials do not provide any attraction for vectors, nor do they produce odors. Facility management will take prompt corrective action in response to any excessive noise, vibration, or other complaints made by neighbors.

The crushers utilized on the Site will be equipped with water misters to control dust from material crushing. Crushing equipment will not operate during high wind conditions with wind speeds estimated at 20 miles per hour or greater. Dust emissions will be maintained below applicable Air Pollution Control Thresholds.

Motorized process equipment and vehicles will be maintained on a regular schedule and repaired as needed. Process equipment and vehicles will only operate when necessary, and SLT will avoid leaving any equipment running when not in use to reduce exhaust emissions.

The process area is an unpaved sandy surface and mist water will infiltrate directly on-site. Recycling and processing activities will not produce effluent wastewater or leachate. Stockpiled materials will be surrounded with perimeter silt fencing and a stormwater conveyance swale on the downgradient side. Stormwater will be routed through a sedimentation basin to ensure 80 percent TSS removal.

Suspected asbestos containing material must be sampled and tested prior to loading for transport from the demolition site or other source of generation.

4.3 Stormwater Controls

The recycling facility has been designed to prevent erosion and the discharge of pollutants in compliance with the state's stormwater standards and the Wetland Protection Act regulations. The facility will utilize a combination of structural stormwater controls, good housekeeping, facility personnel training, and stormwater best management practices which include the removal of sediments and accumulated material from stormwater runoff.

Structural stormwater controls will include silt fencing, a stormwater conveyance swale, a sediment forebay, an anti-tracking pad, and erosion control matting for areas with steep slopes. Stormwater runoff will be treated for 80 percent TSS removal and controlled appropriately.

Good housekeeping consists of regular preventative maintenance of facility equipment and vehicles in accordance with manufacture maintenance schedules, picking up windblown litter and spilled materials, and implementing corrective actions immediately when necessary.

SLT personnel will be trained on stormwater best management practices and encouraged to enforce compliance with these operation and maintenance procedures.

4.4 Compliance Inspection Plan

Site management personnel will inspect the facility on a regular basis to ensure compliance with all components of the RCC permit. Inspections will include verification that incoming loads are being inspected and documented, that required signage is in place, that material stockpiles are in the correct location and within storage limits, and that process and support equipment is in good working order. Site managers will utilize a routine inspection checklist, included in Section 7 of this document.

4.5 Record Keeping System

SLT will maintain records of all inbound and outbound loads. Records will include the date, time of entry, vehicle type and registration, and load weight. Rejected loads and diverted wastes will be noted. The total volume of incoming materials will be estimated on a daily basis from the hauling capacity of vehicles transporting the materials and the type(s) of material(s) being transported. Copies of these documents

will be maintained by the Applicant on-site and will be available for review for review in support of annual reporting.

5. Contingency Plans

5.1 Unscheduled Shutdowns

If the ability to process incoming raw materials is lost due to equipment failure, severe weather, fire, or flood the facility will stockpile only up to the maximum allotted storage of 18,000 tons of material (total processed and unprocessed). Once this threshold is reached, material acceptance will cease until processing activities can resume. SLT personnel will ensure that equipment is maintained properly and repaired appropriately as needed.

In the event that the proposed facility closes due to unforeseen circumstances, a third-party crushing operation will be hired to process the uncrushed and stockpiled ABC material. This material would be added to the existing stockpiles of processed materials and sold at market rates.

5.2 Managing Unacceptable Material

Due to the strict acceptance policies communicated to customers and understood by SLT personnel accepting incoming loads, unacceptable materials are not anticipated to be encountered normally. Incoming loads containing unacceptable materials will be refused. In the event that incidental unacceptable materials are identified after load acceptance, the material will be separated from the processing stream and disposed of in accordance with all applicable regulations.

The following table is designed to outline the procedures implemented in the event that unacceptable materials for which the facility has not been designed to handle are delivered.

If	Then
Unacceptable materials are delivered to the SLT facility (i.e., painted/ coated ABC, comingled C&D materials)	These materials shall be identified, segregated, stockpiled in containers, and will not be processed as part of the recycling operations. These materials will be sent to a MassDEP approved solid waste management facility for further recycling and/or disposal.
Unacceptable materials are delivered to the SLT facility (i.e., asbestos containing materials)	Facility management shall be notified immediately, operations shall cease, and an asbestos abatement contractor shall be notified. MassDEP and the Plympton Board of Health shall be notified of the unacceptable material, and the guidance of an environmental consultant or asbestos abatement contractor shall be followed.

5.3 Spill Prevention and Clean Up

SLT personnel will use the utmost care in ensuring spills do not occur at the recycling facility. The potential for spills will be minimized by storing any on-site chemicals and petroleum products in locked, labeled, and properly ventilated storage containers. In the unlikely event of a spill, SLT personnel will immediately clean up any and all spills of fuel, oil, or other potentially hazardous materials. Any and all reportable spills

will be reported to the proper authorities. If necessary, SLT will commission the services of a Licensed Site Professional to evaluate cleanup efforts and conduct remediation activities in accordance with the Massachusetts Contingency Plan (310 CMR 40.00).

The appropriate materials to respond and cleanup a spill will be maintained on-site at all times. Appropriate accessories for a spill kit typically include absorbents such as sawdust, oil booms, gloves, goggles, plastic and metal containers, rags and/or mops. All employees will be trained on how to properly prevent spills and how to contain one in the unlikely event of a spill.

Processing equipment shall be inspected daily to minimize risk of an accidental discharge of oil or fuel at the Site. Routine equipment refueling activities shall not be conducted within 50 feet of a catch basin or within 100 feet of a resource area (river, stream, wetland). A spill kit shall be nearby and easily accessible during refueling activities. The ground surface in the vicinity of refueling activities should be inspected following refueling. Any spills shall be cleaned up immediately.

All vehicle maintenance/repair performed on-site will occur within the on-site maintenance building. In the event equipment is too large to fit inside the maintenance building during on-site maintenance/repair, appropriate spill protection (i.e. drip pans, absorbent pads, etc.) will be used.

6. Products and Residuals

6.1 Type, Quantity, Composition, and Use of Products

Asphalt, brick, and concrete rubble resulting from the construction, remodeling, repair, or demolition of buildings, pavements, roads, or other structures will be brought to the SLT facility for processing and recycling. The processed ABC aggregate will then be sold for reuse in various construction applications.

The denseness of concrete and asphalt make these materials particularly well-suited for reuse in infrastructure projects, predominantly the construction of roadways and building foundations. Crushed asphalt can be used as aggregate to produce hot mix bituminous pavement or sub base for road construction, driveways, and parking lots. Crushed concrete can be used as aggregate for road base and concrete mixes for construction projects. Crushed brick is commonly used in the landscaping industry for walkways, driveways, and as an alternative to mulch. When grinded finely, crushed brick can be used for running tracks and baseball diamonds. These materials can be screened and divided into different sizes for use in different applications and to meet various material composition requirements.

6.2 Markets for Products

The use of recycled asphalt, brick, and concrete in building materials is a well-established standard practice in the construction industry. The use of these materials is growing in popularity as a cost effective and sustainable alternative to the extraction and production of new building materials. The market for recycled asphalt and concrete is expected to grow significantly as petroleum prices rise and the cost of new materials increases and as standards for environmentally conscious construction practices become more common.

6.3 Stabilization and Pathogen Controls for Land Applied Products

ABC materials are inert and inorganic. As such, stabilization and pathogen control considerations are not necessary for these materials.

6.4 Quantity, Composition, and Management of Residuals

Despite the facility's strict acceptance guidelines, it is possible that an extremely limited amount of solid waste residuals (i.e., wood, paper) may be comingled with the ABC materials. If incidental debris is encountered after load acceptance, it will be separated and stored in a dedicated roll-off container for proper disposal off site at a permitted solid waste handling facility.

It is anticipated that metals, including rebar and reinforcing mesh, will need to be separated from ABC materials during processing and crushing. Metals will be removed and stored in designated roll-off containers located on-site. Residuals are anticipated to make up approximately 2.5 percent of process materials.

7. Inspection Checklist

SLT Construction Corporation ABC Recycling Facility Inspection Log		
Date:	Precipitation:	
Time:	Temperature:	
Personnel:	Weather:	
Environmental Controls and Nuisance Conditions		
Parameter	Yes/No	Corrective Action / Comment
Nuisance Noise Conditions Present?		
Nuisance Dust Conditions Present?		
Complaints from Abutters?		
Stormwater Migrating Offsite?		
Materials Management		
Parameter	Yes/No	Corrective Action / Comment
Incoming Material Records Complete?		
Outgoing Material Records Complete?		
Rejected Loads Recorded?		
Material Stockpiles Within Permit Limits?		
Equipment		
Parameter	Yes/No	Corrective Action / Comment
Equipment in Good Working Order?		
Signs of Oil or Fuel Leaks?		
Compliance		
Parameter	Yes/No	Corrective Action / Comment
Facility in Compliance with RCC Permit?		
Notes		