



Demolition and Disposal Plan

**Demolish building
4825 Glenbrook Road, NW, Washington, DC, 20016**

Final

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A. Introduction

The purpose of this demolition and disposal plan is to establish methods and procedures for Demolition Services, Inc. (DSI) to follow during the safe and resourceful demolition of 4825 Glenbrook Road, NW, Washington, DC, 20016. All demolition and work procedures will follow Section 23 of the US Army Corps of Engineers Safety Manual, EM-385-1-1 (15 September 2008).

B. Building Description

The project includes demolition of the three (3) story Residential home. The residential home is approximately 2730 square feet per floor. The structure is 2 stories above ground setting on a full basement. The structure is constructed of standard wood framing with a brick exterior finish.

The scope of work includes demolition of the (3) three story structure located at 4825 Glenbrook Road, NW, Washington, DC, 20016, down to the slab of the property where possible. Specifically, all building structures above the first floor including the first floor and any extraneous non-structural walls within the basement shall be removed. The property is three stories, including the basement. Each floor is 2,730 square feet and the perimeter of the house is 230 feet. This demolition work is to include both the exterior and interior of the building. However, the exterior walls or floor of the basement will not be disturbed.

C. Demolition Guideline

1. DSI will coordinate and acquire all necessary permits (such as building permit and public space permit) to perform this work. Once permits are obtained they will be posted on-site.
2. Miss Utility will be notified at least 48 hours prior to commencement of any work.
3. Temporary fencing shall be erected by others.
4. Prior to demolition DSI will perform an engineering survey of the structure to determine structural hazards. The survey will be conducted by a registered Professional Engineer. The survey results will be provided to USACE.
5. Prior to demolition DSI will perform an environmental survey of the structure. Results of environmental survey will also be provided to USACE. This will include asbestos and lead based paint.
6. Prior to beginning work DSI will obtain a copy of the Site-Specific Work Plan for 4825 Glenbrook Road Remedial Action. The demolition activities will be performed in accordance with the Parsons' Accident Prevention Plans included in the 4825 Glenbrook Road Site-Specific Work Plan for Remedial Action.

7. Prior to demolition DSI will disconnect all utility lines (including electrical, gas, water, and sewer) at property line and remove universal waste stream (i.e. light bulbs and ballast). Utility lines will be capped at the property line. Any overhead power lines will be de-energized or protected according to Miss Utility's procedures.
8. Prior to demolition, the AC units will be removed and Freon from these units will be collected by a licensed company. The collection of Freon will be documented and a close out report will be provided to the owner.
*See attached AHA provided by Freon Recovery Company.
9. Pre-demolition meeting will be held onsite.
10. Access to the site will be restricted to authorized personnel only and patrolled by a contracted security guard after hours. Privacy fencing will be installed along Glenbrook Road and around the perimeter of the Parsons Command Post compound. After hours and on weekends, access points to the site will be locked with a key and key log will be maintained by the Parsons Site Manager. Portable restrooms will be available to site workers as needed.
11. All demolition activities shall be conducted with minimal disruption to the community. Dust will be controlled by wet demo methods. Water will be supplied by an on-site water supply/source. Noise will be controlled by working within the allowed hours of operations for the community. Normal working hours are 7am to 4pm M-F.
12. Demolition activities cannot disturb soil surfaces surrounding the structure. Any part of the building which comes into contact with subsurface material is to remain in place. This will include but is not limited to the basement walls on the west, south, and east side of the building. No demolition of the residence is to be performed below the slab of the house. The entire wall on the north side of the building (where the garage doors are located), including the basement wall, will be knocked down to the slab. The basement supporting walls will remain intact (i.e., do not remove structural or load bearing walls that support the exterior basement walls. In the event that suspected American University Experiment Station (AUES) item or items are accidentally uncovered or exposed all work will stop immediately. A Spring Valley low probability Contingency Plan will be initiated. The jobsite will be secured and turned over to the USACE. A Spring Valley low probability Contingency Plan is included in Attachments.
13. Structural demolition will be performed systematically from top of building to bottom, using a 200 series Track Excavator (73,000 LBS). All demolition shall be conducted using the mentioned equipment. All hand work will be conducted from the ground such as separation of wood debris from metal or concrete. Heavy equipment will enter the property from the driveway entrance and locate in the driveway in front of the garage for the demolition activities.
14. All construction debris will be hauled offsite using roll offs and/or demo trailers
15. Construction debris will be taken to an appropriate landfill. All metals, concrete, and brick will be taken to a recycler.

16. The site will be cleaned and cleared before departing each day to the approval of the Parsons Site Manager. If at any time materials cannot be hauled off site before departing for the day materials will be neatly stored and secured.
17. DSI will provide traffic controls to conduct demolition activities. Traffic controls will be conducted during loading and unloading of equipment and haul trucks or at times when traffic will be impacted due to demolition activities. Traffic controls will be set up as a two man operation using stop and slow signs to direct traffic. The traffic controllers will be required to wear Class III high visible vest. High visible vest is a DSI company standard for all employees and site visitors to work or access the jobsite. Approximately 50 trips are estimated for the demolition effort.

D. Safety Procedures

a. Activity Hazard Analysis (*see attached)

b. Public Protection

Temporary safety fence will be provided by others.

c. Fire Protection and Prevention

If hot work is being performed, all heating apparatus will be provided in accordance with OSHA and NFPA regulations. If a "Hot Work Permit" is required, DSI will request said permit from the USACE. Hot work will not proceed until a permit is issued.

1. Cables (lines) will be placed so as to ensure that they will not be cut and/or severed by falling debris. Any lines that may run from a man lift shall be secured against the floor and sides of the building (if there are walls to attach to). Lines will not be secured into the ground.
2. Areas below cutting or welding operations will always be kept clear.
3. Goggles and cutting shields shall be used for eye protection and to prevent flash burns. Eye protection is required while chipping, grinding and dressing of welds.
4. Placement of any supply lines and connections will be such that they are not fire or tripping hazards.
5. Cutting operations will be shielded with noncombustible or flameproof screens wherever practicable.
6. Fire extinguishers will be readily available when cutting or heating on the job.
7. Proper ventilation will be provided whenever cutting or heating is performed.
8. One person will be designated as "Fire Watch". The person on Fire Watch will have no other jobs to perform; he will be on his post for all hot work. Fire-watch person will communicate with torch operators by use of air horn.

*Hot work is not expected to be performed during the demolition. The purpose to include fire protection in this plan is in case of equipment failure. If we should have a bucket or steel member crack or break this is to establish methods to make repairs. This section is not put in the plan for day to day operations.

E. Daily Housekeeping

Good daily housekeeping is the foundation for a safe work environment. Proper daily housekeeping prevents accidents and fires, as well as creates an organized and secure workplace atmosphere.

- All materials shall be stored in a stable manner so that they will not be subject to falling, shifting, or spilling.

Rubbish, scraps, and debris will be removed from the work area on a daily basis to jobsite dumpsters, trucks, or stockpiled, as required.

- Materials and supplies will not be left in walkways or outside the work area. Work areas shall be inspected by a designee of the DSI Superintendent at the end of each work shift.

F. Personal Protective Equipment (PPE)

1. Personal protective equipment will be worn as necessary to safely complete this project.
2. Employees must check with their supervisor regarding any portion of their job and/or PPE that they are not familiar with.
3. Goggles, face shields, helmets and other comparable equipment are required to fit the eye and face protection needs of each individual employee.
4. Hard hats shall be ANSI approved. Hard hats, Steel Toe Shoes, Eyewear and High Visibility Safety Vests (HSVS) are DSI company-required safety gear on every project.
5. Long-sleeved shirts and welding shirts and/or jackets, will be worn as required.
6. Gloves as necessary
7. ANSI Approved Steel Toed Boots are required on this and all projects.
8. Respiratory protection will be used as a safeguard against hazardous fumes. When respiratory protection is utilized, Fit Test Records will be supplied.
9. Material Safety Data Sheets (MSDS) present on job site at all time. MSDS binders are assembled based on the materials stored in job trailers and site trucks. If at any time new materials are delivered MSDS forms will be inserted.
10. The use of Full body harnesses is required when working on elevated work

where there is no guard rail protection and on suspended scaffolds over 6 feet above finish grade and or floor level.

11. Employees are expected to utilize proper judgment in their personal habits when they report to work each morning; they must be in fit condition to meet daily obligations.
12. Ear protection must be worn during operation of heavy equipment.
13. DSI will comply with health and safety regulations applicable to UXO operations included in EM 385-1-1 (September 2008).
14. Parsons will provide hand held radios to all active construction workers to facilitate communication between site workers and the Command Post. Hand signals will be established and reviewed during the morning safety briefings in the unlikely event of radio failure. Parsons Site Manager will be present during all construction activities.

G. Disposal

Demolition Debris will be separated into four (4) waste streams. They are:

1. Construction Debris (i.e. wood, trash)
2. Masonry materials (i.e. brick, concrete block)
3. Metals
4. Universal waste (I.e. fluorescent bulbs, ballast, and mercury containing switches)

Construction debris will be separated and disposed of at East End Landfill and Cox's Darbytown Road Landfill in accordance with all Local, State, and Federal guidelines. The disposal permits are included in the attachments.

Concrete, masonry, and metal materials will be hauled to a recycler.

If any universal wastes (fluorescent bulbs, ballasts, mercury switches) are identified, they will be disposed of along with any identified environmental waste as determined by the environmental survey performed prior to demolition. The waste will first be transported to the USACE FUDS Interim Holding Facility on the federal property for temporary storage, and then transport to an approved disposal facility selected based on the environmental survey results.

All waste streams will be disposed of in accordance with all Local, State, and Federal guidelines.

A signed receipt by the disposal site operator will be returned to the USACE within thirty (30) days of disposal. The receipt will indicate the date of receipt, and the quantity of material received. The receipt will also indicate the condition of the materials as delivered to the landfill and the location where the debris will finally rest.

H. Emergency Procedures

When an emergency develops, the Site Superintendent should:

1. Secure the area tightly and quickly.
2. Site Superintendent is to call emergency phone numbers of significance (911 or ONSITE EMERGENCY CONTACT FIRST)
3. Once Emergency contacts are notified Site Superintendent is to notify Parsons and Demolition Services, Inc. Site Project Manger.
4. Once site notifications have been made, Parsons will notify USACE of developing emergency.
5. See attached for route and location of nearest Hospital.

Sections 01.D and 01.E, US Army Corps of Engineers, EM 385-1-1, 15 September 2008 will be used for additional guidelines for emergency procedures.

Fire Procedures:

1. Have fire extinguishers on hand during work. Make sure all workers are aware of the location of fire extinguishers.
2. In case of fire, use proper fire extinguisher and/or water hose on all SMALL, centrally located fires.
3. Call Fire Department
4. Hot Work Permit will be requested as necessary

Sections 10.C, US Army Corps of Engineers, EM 385-1-1, 15 September 2008 will be used for additional guidelines on fire procedures.

A list of pertinent emergency phone numbers will be established and listed at the project site.

I. Additional Items

Utilities: The existing electric, steam, gas, water, telephone, and other utility lines will be located and disconnected by DSI prior to the commencement of any demolition activities. The disconnections will be verified by DSI. Care will be taken to insure that no disruption of utility services will occur to any other facility structures.

J. Emergency Contact Information

NAME	DESIGNATION	PHONE NUMBER
Ronald J. Feather	General Superintendent	540-219-0900
Justin Stanley	Superintendent/ Site Safety and Health Officer	703-656-1828
Ron Feather	President/ Project Manager	703-585-9058 (Desk) 703-257-4374 (Main Office)
Scott Wunschel	Parsons Site Manger	202-294-6991

Joe Kaputa

Parsons Site Construction
Manager

703-899-4206

K. Summary

To minimize pollution, degradation, and exploitation of the environment, all work will be performed in accordance with contract specifications and all applicable Federal, DC, and local laws and regulations.

Attachments

Spring Valley Low Probability Contingency Plan

Project Schedule

Directions to nearest Hospital and George Washington University Hospital

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Contingency Plan

16.13 MEC/RCWM CONTINGENCY PLAN FOR LOW PROBABILITY SITES

16.13.1 Introduction

16.13.1.1 The purpose of this contingency plan is to define the procedures that will be followed in the unlikely event that items potentially related to the American University Experiment Station (AUES) are encountered during non-intrusive activities at the SVFUDS, or during intrusive activities at low probability sites. For purposes of differentiation between this plan and the contingency plan used for higher probability sites, this plan will be referred to as the Low Probability Contingency Plan.

16.13.2 Definitions

16.13.2.1 Items that are potentially related to AUES will be defined as “potential AUES items” for the purposes of this Low Probability Contingency Plan. These items include but are not limited to:

- Any item identified as potential MEC/RCWM or as being related to MEC/RCWM; or
- Any sealed container that cannot be positively identified to be unrelated to AUES (e.g., paint cans, etc. are known to be unrelated to AUES activities); or
- Any unsealed container or identifiable fragment thereof that cannot be positively identified to be unrelated to AUES (e.g., beer bottles, etc. are known to be unrelated to AUES activities); or
- Any other item that is potentially agent-related material or that potentially contains agent-related material; or
- Any other item that cannot be positively identified as an obvious cultural feature or a post-1918 feature (obvious cultural features or post 1918 features include such items as root ball baskets, poly vinyl chlorinated [PVC] piping, wiring, etc.).

16.13.3 Low Probability Contingency Plan Initiation

16.13.3.1 The Low Probability Contingency Plan will be initiated if any potential AUES items (as defined above) are encountered during site activities, or if personnel at a low probability site exhibit symptoms that may be attributable to a chemical exposure (i.e., respiratory irritation and/or irritation of the eyes or skin).

16.13.3.2 In the event that the Low Probability Contingency Plan is initiated for any reason, intrusive activities will be halted immediately. EXCEPTION: see Paragraphs 16.13.8.2 through 16.13.8.4.

16.13.4 Initiation Procedures for Potential AUES Items

16.13.4.1 In the event that the Low Probability Contingency Plan is initiated because potential AUES items are encountered during site activities, subsequent actions taken will be determined according to the nature of the potential item. This procedure is summarized in Figure D1-16-1 and in Sections 16.13.5 through 16.13.8.

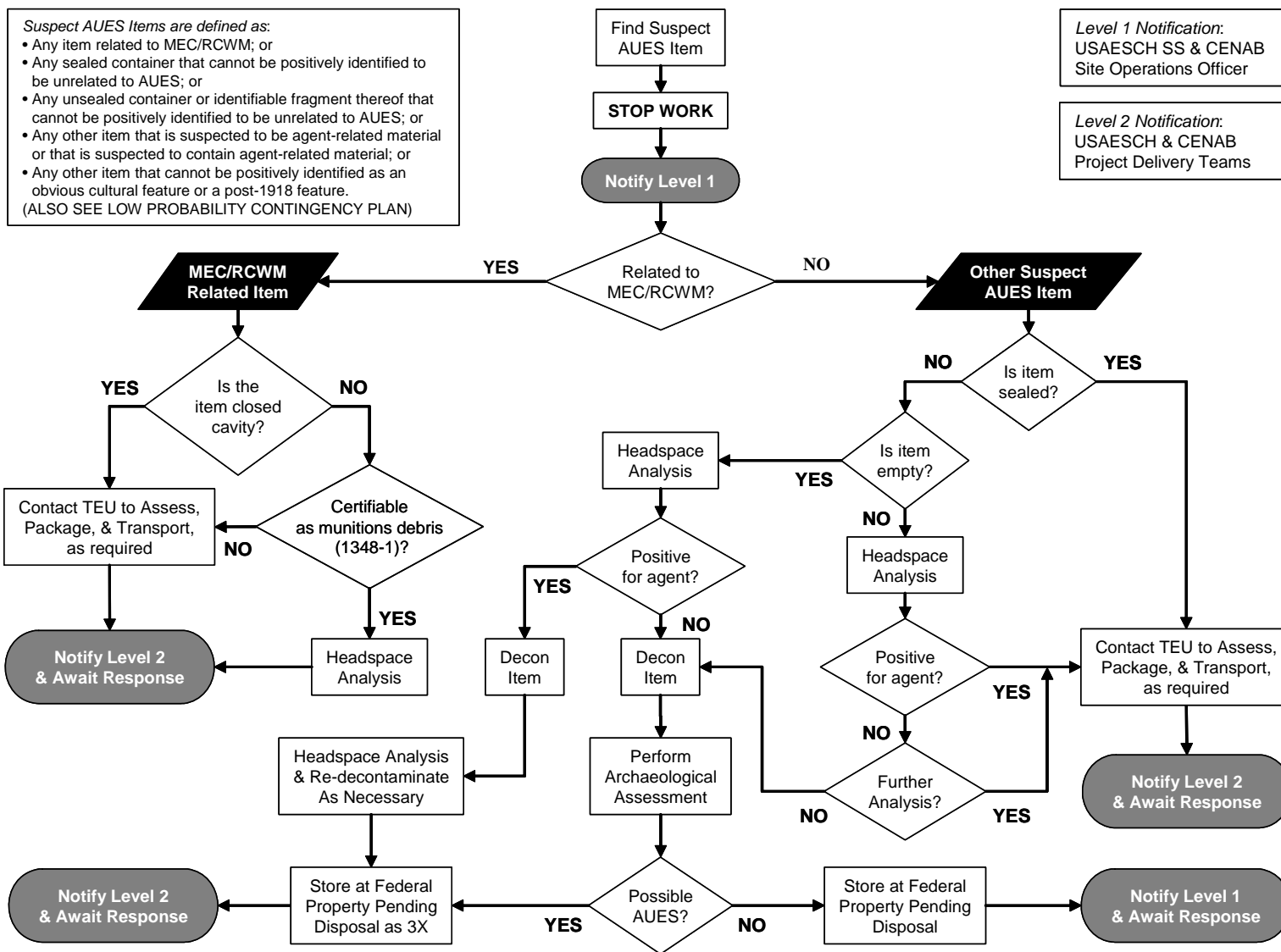
16.13.4.2 After initiation of the Low Probability Contingency Plan and the cessation of intrusive activities, the Site Manager or designate will contact the USAESCH Safety Specialist and CENAB Site Operations Officer and inform them that the Low Probability Contingency Plan has been initiated. The USAESCH Safety Specialist will coordinate further response with USAESCH, TE, and the Air Monitoring Team, as necessary. The CENAB Site Operations Officer will notify other outside agencies, as required. EXCEPTION: see Paragraphs 16.13.8.2 through 16.13.8.4.

16.13.5 Initiation Procedures for MEC/RCWM-Related Items

16.13.5.1 If the potential item is potentially related to MEC/RCWM, the following step-by-step procedure will be followed:

- If the potential item requires closed cavity assessment or is not certifiable as munitions debris in accordance with DoD Regulation 4160-21.M, the USAESCH Safety Specialist will contact TE so that the item can be assessed, photographed, packaged, and transported, as appropriate, in accordance with TE SOPs. After TE has been contacted, the USAESCH Safety Specialist and the CENAB Site Operations Officer will contact their respective PDTs to apprise them of the situation.

**Figure D1-16-1
Low Probability Contingency Plan Decision Flowchart**



- If the potential item is certifiable as munitions debris in accordance with DoD Regulation 4160-21.M, then the item will be double-bagged in plastic lock bags by personnel wearing Nitrile gloves. The item will be given a tracking number in accordance with Section 16.13.10, and also be photographed unless it is considered unsafe to do so. The item will then be transferred to the Air Monitoring Team for headspace analysis for mustard and lewisite in accordance with their SOPs, and the excavation area will be covered with polyethylene sheeting and anchored at the edges with sandbags pending the analysis results. Once the item has been packaged for transfer, the USAESCH Safety Specialist and the CENAB Site Operations Officer will contact their respective PDTs to apprise them of the situation.
- Intrusive activities will not resume at the site until authorization to continue is received from the USAESCH and CENAB PDTs, via the USAESCH Safety Specialist.

16.13.6 Initiation Procedures for Potential Sealed Items

16.13.6.1 If the potential item is sealed, the USAESCH Safety Specialist will contact TE so that the item can be assessed, photographed, packaged, and transported, as appropriate, in accordance with TE SOPs. After TE has been contacted, the USAESCH Safety Specialist and the CENAB Site Operations Officer will contact their respective PDTs to apprise them of the situation.

16.13.6.2 Intrusive activities will not resume at the site until authorization to continue is received from the USAESCH and CENAB PDTs, via the USAESCH Safety Specialist.

16.13.7 Initiation Procedures for Potential Unsealed Items Containing Liquids or Solids

16.13.7.1 If the potential item is unsealed and contains a liquid or a solid substance, the following step-by-step procedure will be followed:

- The item will not be moved and the excavation area will be secured and covered with polyethylene sheeting, and anchored at the edges with sandbags.
- The USAESCH Safety Specialist will then contact the Air Monitoring Team to request that they come to the site to perform headspace analysis of the potential item for mustard and lewisite in accordance with their SOPs.
- If the item is positive for agent, the USAESCH Safety Specialist will contact TE so that the item can be assessed, photographed, packaged and transported, as appropriate, in accordance with TE SOPs. After TE has been contacted, the USAESCH Safety Specialist and the CENAB Site Operations Officer will contact their respective PDTs to apprise them of the situation.
- If the item is not positive for agent, the SSO will perform a visual assessment of the item to evaluate whether the contents should be recommended for further analysis. Agent-related material may be viscous (oil-like) liquid that is clear,

yellow, brown, black, or milky in appearance, or unidentifiable solid that is white, yellow, green, brown, or black in appearance.

- If the SSHO deems that there is any reason for the contents to undergo further analysis, the USAESCH Safety Specialist will contact TE so that the item can be assessed, photographed, packaged, and transported, as appropriate, in accordance with TE SOPs. After TE has been contacted, the USAESCH Safety Specialist and the CENAB Site Operations Officer will contact their respective PDTs to apprise them of the situation. Intrusive activities will not resume at the site until authorization to continue is received from the USAESCH and CENAB PDTs, via the USAESCH Safety Specialist.
- If the contents of the item clearly appear to be uncontaminated soil, mud, or groundwater, the SSHO will request the USAESCH Safety Specialist's concurrence with this assessment. If the USAESCH Safety Specialist does not concur with the SSHO's assessment, TE will be contacted as described in the previous step. However, if the USAESCH Safety Specialist does concur with the assessment, the item will be photographed, decontaminated in a container of 5% bleach solution, and then double-bagged, labeled (Section 16.13.10), and transferred to the Project Archaeologist for archaeological assessment. The item will be placed into the decontamination solution using tongs or other method to avoid physical contact with the item during decontamination, and the decontamination solution used will be kept segregated until after the results of the archaeological assessment, to allow analysis of the solution if necessary. Following this archaeological assessment, if the item is determined not to be AUES-related, the USAESCH Safety Specialist and the CENAB Site Operations Officer will be informed and may then give permission for intrusive activities to continue at the site. The decontaminated item will be held in a labeled drum at the Federal Property, pending appropriate disposal, and the segregated decontamination solution will be placed in the decontamination water drum.
- If the item is determined to be potentially AUES-related following this archaeological assessment, the USAESCH Safety Specialist and the CENAB Site Operations Officer will contact their respective PDTs to apprise them of the situation. Intrusive activities will not resume at the site until authorization to continue is received from the USAESCH and CENAB PDTs, via the USAESCH Safety Specialist. The decontaminated item will be held in a labeled drum at the Federal Property, pending disposal as 3X scrap, and the segregated decontamination solution will be kept in a labeled container, pending the decision on whether or not it requires analysis.

16.13.8 Initiation Procedures for Other Potential AUES Items

16.13.8.1 If the potential item is neither MEC/RCWM-related nor a sealed item, and it does not contain any liquid or solid substances, the following step-by-step procedure will be followed:

- The item will be photographed and then double-bagged in plastic lock bags by personnel wearing Nitrile gloves. The item will then be transferred to the Air Monitoring Team for headspace analysis for mustard and lewisite in accordance with their SOPs, and the excavation area will be covered with polyethylene sheeting and anchored at the edges with sandbags pending the analysis results.
- If the item is positive for agent, the item will be decontaminated in a container of 5% bleach solution, and then tested again using headspace analysis to confirm decontamination. The item will be placed into the decontamination solution using tongs or other method to avoid physical contact with the item during decontamination. If the item is still positive for agent following this decontamination process, it will be decontaminated again and retested using headspace analysis. This two-step process will be repeated as necessary until decontamination is confirmed. Once the item is decontaminated, it will be double-bagged and labeled in accordance with Section 16.13.10. The USAESCH Safety Specialist and the CENAB Site Operations Officer will contact their respective PDTs to apprise them of the situation and the decontaminated item will be held in a labeled drum at the Federal Property, pending disposal as 3X scrap. Intrusive activities will not resume at the site until authorization to continue is received from the USAESCH and CENAB PDTs, via the USAESCH Safety Specialist.
- If the item is not positive for agent, the item will be decontaminated in a container of 5% bleach solution and then double-bagged, labeled (Section 16.13.10), and transferred to the Project Archaeologist for archaeological assessment. The item will be placed into the decontamination solution using tongs or other method to avoid physical contact with the item during decontamination, and the decontamination solution used will be kept segregated until the results of the archaeological assessment are known, to allow subsequent analysis of the solution if necessary. Following this archaeological assessment, if the item is determined not to be AUES-related, the USAESCH Safety Specialist and the CENAB Site Operations Officer will be informed and may then give permission for intrusive activities to continue at the site. The decontaminated item will be held in a labeled drum at the Federal Property, pending appropriate disposal, and the segregated decontamination solution will be placed in the decontamination water drum.
- If the decontaminated item is determined to be potentially AUES-related following this archaeological assessment, the USAESCH Safety Specialist and the CENAB Site Operations Officer will contact their respective PDTs to apprise them of the situation. The decontaminated item will be held in a labeled drum at

the Federal Property, pending disposal as 3X scrap, and the segregated decontamination solution will be kept in a labeled container, pending the decision on whether or not it requires analysis. Intrusive activities will not resume at the site until authorization to continue is received from the USAESCH and CENAB PDTs, via the USAESCH Safety Specialist.

16.13.8.2 The above procedure may be modified in the event that multiple potential items are recovered that are neither MEC/RCWM-related, nor sealed items, and that do not contain any liquid or solid substances (e.g., the team are digging in an area of trash). Under these circumstances, the field team will not be required to stop work and may continue with excavation activities at the low probability site as long as the following conditions have been met:

- The initial potential item find(s) have been sent for headspace analysis and no agent has been detected.
- The USAESCH and CENAB PDTs have been informed of these finds and have agreed to allow the modification of the procedure.

16.13.8.3 Under these conditions, any potential items recovered that are neither MEC/RCWM-related, nor sealed items, and that do not contain any liquid or solid substances will be containerized (e.g., placed 55-gallon drum) and sent for headspace analysis at the end of each day. Results of these analyses will be reported to the USAESCH and CENAB PDTs the following morning, via the USAESCH Safety Specialist and the CENAB Site Operations Officer, respectively,. Excavation will halt if agent has been detected.

16.13.8.4 Subsequent to this procedure modification, in the event that any items are recovered that are addressed in Sections 16.13.5, 16.13.6, or 16.13.7 of this Low Probability Contingency Plan, or if the Parsons Site Manager, USAESCH Safety Specialist, or CENAB Site Operations Officer otherwise deem it necessary, further intrusive activities will be halted immediately and the appropriate Contingency Plan procedures will be followed.

16.13.9 Initiation Procedures for Possible Agent Exposure

16.13.9.1 In the event that the Low Probability Contingency Plan is initiated because site personnel exhibit symptoms that may be attributable to a chemical exposure, the following step-by-step procedure will be carried out:

- Personnel will move upwind of the excavation or other potential source of exposure.
- The USAESCH Safety Specialist and CENAB Site Operations Officer will be contacted and informed that the Low Probability Contingency Plan has been initiated. The USAESCH Safety Specialist will coordinate further response with USAESCH, TE, and the Air Monitoring Team, as necessary. The CENAB Site

Operations Officer will notify and coordinate with other outside agencies, as required.

- Potentially exposed personnel may be processed through the EPDS, if signs of exposure are observed on their skin or clothing. Areas of the body suspected to be exposed will be flushed with copious quantities of water. Potentially exposed clothing or PPE will be removed and decontaminated in accordance with the procedures described in Chapter 13 of this SSHP.
- George Washington Hospital will be notified (telephone: 202-934-3211) and, if present, the onsite ambulance will be contacted and used to transport any personnel exhibiting chemical exposure symptoms, or other personnel potentially exposed, to that facility. If no ambulance is on-site, George Washington Hospital will be notified and 911 will be called. At this time, George Washington Hospital will be informed whether the potentially exposed personnel have been processed through the EPDS, though they will be advised that the potentially exposed personnel may require additional decontamination upon arrival at the hospital if decontamination has not been confirmed on site using agent monitoring.
- The excavation area will be covered with polyethylene sheeting and anchored at the edges with sandbags and the USAESCH Safety Specialist will contact the Air Monitoring Team to perform headspace analysis at the excavation. Also, the USAESCH Safety Specialist and the CENAB Site Operations Officer will contact their respective PDTs to apprise them of the situation.
- Intrusive activities will not resume until authorization to continue has been received from the USAESCH and CENAB PDTs, via the USAESCH Safety Specialist.

16.13.10 On-Site Tracking for Low Probability Contingency Plan

16.13.10.1 Every potential item uncovered that causes the Low Probability Contingency Plan to be triggered will be tracked using unique alphanumeric tracking numbers. General details of the numbering systems to be used are described below, though specific details will be included in each SSWP.

16.13.10.2 The Site Manager will enter descriptions of all potential items in the Field Log Book (e.g., dimensions, color, material of construction, other notable features). Photographs will be taken of potential items, as specified in Section 16.13.6. All photographs of potential items will include a visual scale in order that the dimensions of the item can be estimated using the photograph.

16.13.10.3 On any day that the Low Probability Contingency Plan is initiated, the Site Manager will complete a Contingency Plan Initiation Summary and include it in the Daily Report (Section 4.9 of the WP). Both the Site Manager and the USAESCH Safety Specialist will sign this Contingency Plan Initiation Summary.

16.13.10.4 Items Removed by TE

16.13.10.4.1 If the item has been removed by TE during a low probability intrusive investigation, Parsons will assign a unique alphanumeric tracking number for internal reference and tracking purposes. The first two characters of this number will be “TE” (to denote an item removed by TE). The next set of characters will denote the overall site location (e.g., “4801GR” for 4801 Glenbrook Road). The next four characters will indicate the specific location at which the item was recovered (AN for anomaly number). The last number will be a unique number assigned to each item recovered at that location which is removed by TE.

16.13.10.5 The following is an example of designations for items removed by TE:

TE-4801GR-AN22-010, TE-4801GR-EX22-011, etc.

16.13.10.6 Munitions Debris

16.13.10.6.1 Each item of munitions debris encountered during a low probability intrusive investigation will be given a unique alphanumeric tracking number. The first three characters of this number will be “SCR” (to denote munitions debris). The next set of characters will denote the overall site location (e.g., “4710WL” for 4710 Woodway Lane). The next four characters will indicate the specific location at which the item was recovered (AN for anomaly number). The last number will be a unique number assigned to each munitions debris item recovered at that location.

16.13.10.6.2 The following is an example of munitions debris item designations:

SCR-4710WL-AN22-010, SCR-4710WL-AN22-011, etc.

16.13.10.7 Other Potential Items

16.13.10.7.1 Other potential items encountered during low probability, intrusive investigations will be given a unique alphanumeric tracking number, which will be marked on the bag in which the item is placed. Additionally, the date of generation will be marked on the bag. The first two characters of this number will be “PI” (potential item). The next set of characters will denote the overall site location (e.g., “5058SegS” for 5058 Sedgwick Street). The next four characters will indicate the specific location at which the item was recovered (AN for anomaly number). The last number will be a unique number assigned to each potential item recovered at that location.

16.13.10.7.2 The following is an example of designations for other potential items:

PI-5058SegS-AN01-001, PI-5058SegS- AN01-002, etc.

16.13.10.7.3 In the event that the procedures detailed in Paragraphs 16.13.8.2 through 16.13.8.4 are followed, other potential items will be containerized and tracked by batch using a unique alphanumeric tracking number, which will be marked on the container in which each batch of items is placed. Additionally, the date of generation will be marked on the container. The first two characters of this number will be “PI” (potential item). The next set of characters will denote the overall site location (e.g., “5058SegS” for 5058 Sedgwick Street). The next four characters will indicate the specific location at which the item was recovered (AN for anomaly number). The next part of the code will be “BATCH” to denote that this tracking number refers to multiple items. The last number will be a unique number assigned to each potential item recovered at that location.

16.13.10.7.4 The following is an example of designations for other potential items using the modified procedures:

PI-5058SegS-AN01-BATCH-001, PI-5058SegS- AN01- BATCH-002, etc.

Project Schedule



8136 Flannery Ct Manassas, Virginia 20109

4825 Glenbrook Road, NW, Washington DC

The below schedule is only to be used for a base line schedule. All work will follow the approved Demolition & Disposal plan, Health & Safety plan, and the USACE EM385-1-1

Events in numerical order

1. Pre-Deconstruction

- Review submitted AHA, H&S Plan, and Demolition & Disposal Plan.
- Review schedule
- Review work established work area layout
- Post permits on-site

2. Utility disconnect

- Verify with Parsons and USACE utility disconnect area is correct
- Disconnect utilities

3. Mobilize Equipment

- 200 excavator
- Hand tools
- Portable Bathroom

4. Structural Demolition

- Remove porch roof systems that can be reached from drive way.
- Demolition of the main structure will start at the top working to the ground floor.
- Demolition will be started on the garage side of the structure to ensure

Office: 703-257-3512 Fax: 703-257-4648

that building debris is brought to the ground within the foot print of the building.

- During the demolition of the above ground floors the basement floor will be collapsed in a manor to act as containment. To the best of our ability the exterior wall will not be compromised. In the event that the walls are compromised the jobsite will be shut down and secured and turned over to the USACE.
- During the process of demolition debris will be hauled off site to approved landfills

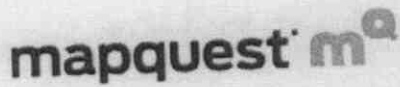
5. Site walk with Parsons and USACE

- Establish that all contracted scopes of work are completed and satisfactory.

6. Demobilization

- Removal of equipment
- Clean up all misc. debris
- Remove portable bathroom









Route to Nearest Hospital



Trip to:
2150 Pennsylvania Ave NW
Washington, DC 20037-3201
4.13 miles / 12 minutes

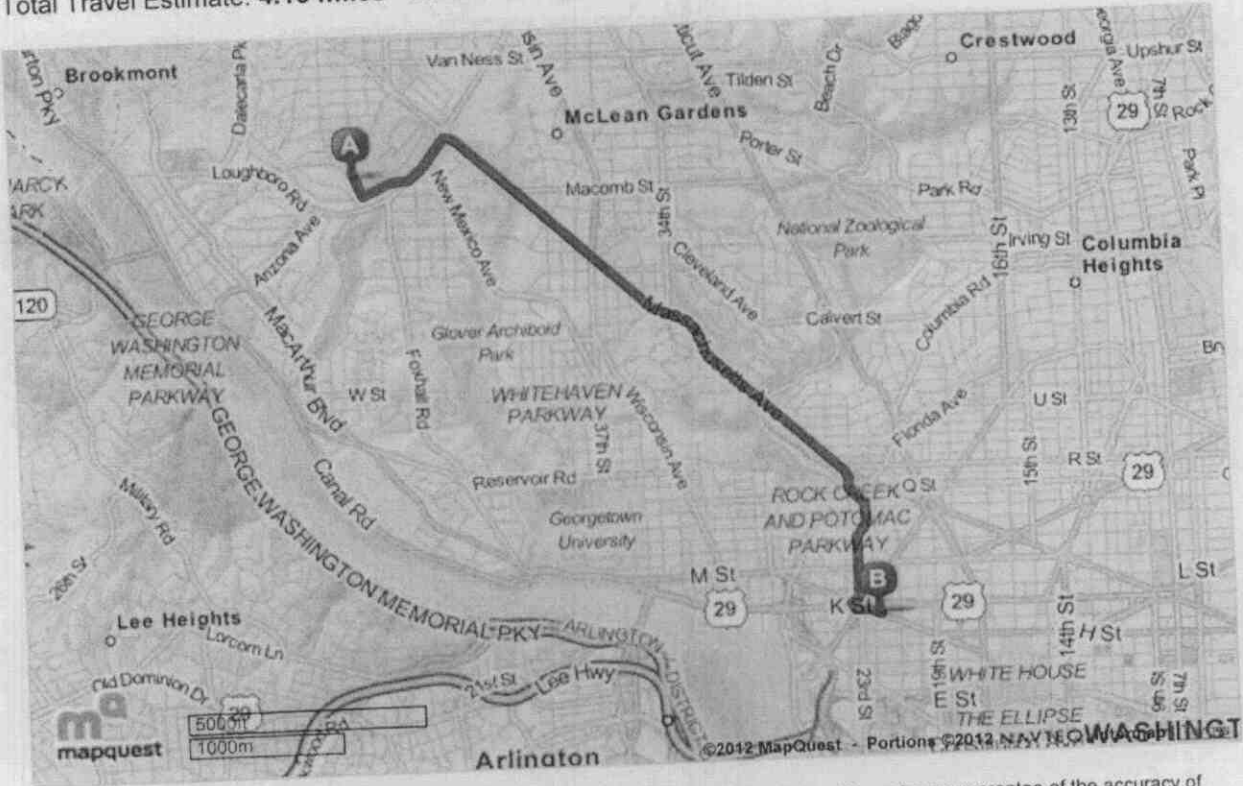
Notes

A 4825 Glenbrook Rd NW, Washington, DC 20016-3245

-  1. Start out going southeast on Glenbrook Rd NW toward Rockwood Pky NW. [Map](#) **0.09 Mi**
0.09 Mi Total
-  2. Turn left onto Rockwood Pky NW. [Map](#) **0.2 Mi**
0.3 Mi Total
-  3. Turn slight left onto Nebraska Ave NW. [Map](#) **0.3 Mi**
0.6 Mi Total
-  4. Turn slight right onto Ward Cir NW. [Map](#) **0.01 Mi**
0.6 Mi Total
-  5. Turn slight right onto Massachusetts Ave NW. [Map](#) **2.6 Mi**
3.2 Mi Total
-  6. Enter next roundabout and take the 1st exit onto 23rd St NW. [Map](#) **0.7 Mi**
3.9 Mi Total
-  7. Enter next roundabout and take the 5th exit onto Pennsylvania Ave NW. [Map](#) **0.2 Mi**
4.1 Mi Total
-  8. 2150 PENNSYLVANIA AVE NW is on the right. [Map](#)

B 2150 Pennsylvania Ave NW, Washington, DC 20037-3201

Total Travel Estimate: 4.13 miles - about 12 minutes



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Notes

Trip to:
2150 Pennsylvania Ave NW
Washington, DC 20037-3201
4.13 miles / 12 minutes



4825 Glenbrook Rd NW, Washington, DC 20016-3245



1. Start out going **southeast** on **Glenbrook Rd NW** toward **Rockwood Pky NW**. [Map](#) **0.09 Mi**
0.09 Mi Total



2. Turn **left** onto **Rockwood Pky NW**. [Map](#) **0.2 Mi**
0.3 Mi Total



3. Turn **slight left** onto **Nebraska Ave NW**. [Map](#) **0.3 Mi**
0.6 Mi Total



4. Turn **slight right** onto **Ward Cir NW**. [Map](#) **0.01 Mi**
0.6 Mi Total



5. Turn **slight right** onto **Massachusetts Ave NW**. [Map](#) **2.6 Mi**
3.2 Mi Total



6. Enter next roundabout and take the 1st exit onto **23rd St NW**. [Map](#) **0.7 Mi**
3.9 Mi Total



7. Enter next roundabout and take the 5th exit onto **Pennsylvania Ave NW**. [Map](#) **0.2 Mi**
4.1 Mi Total

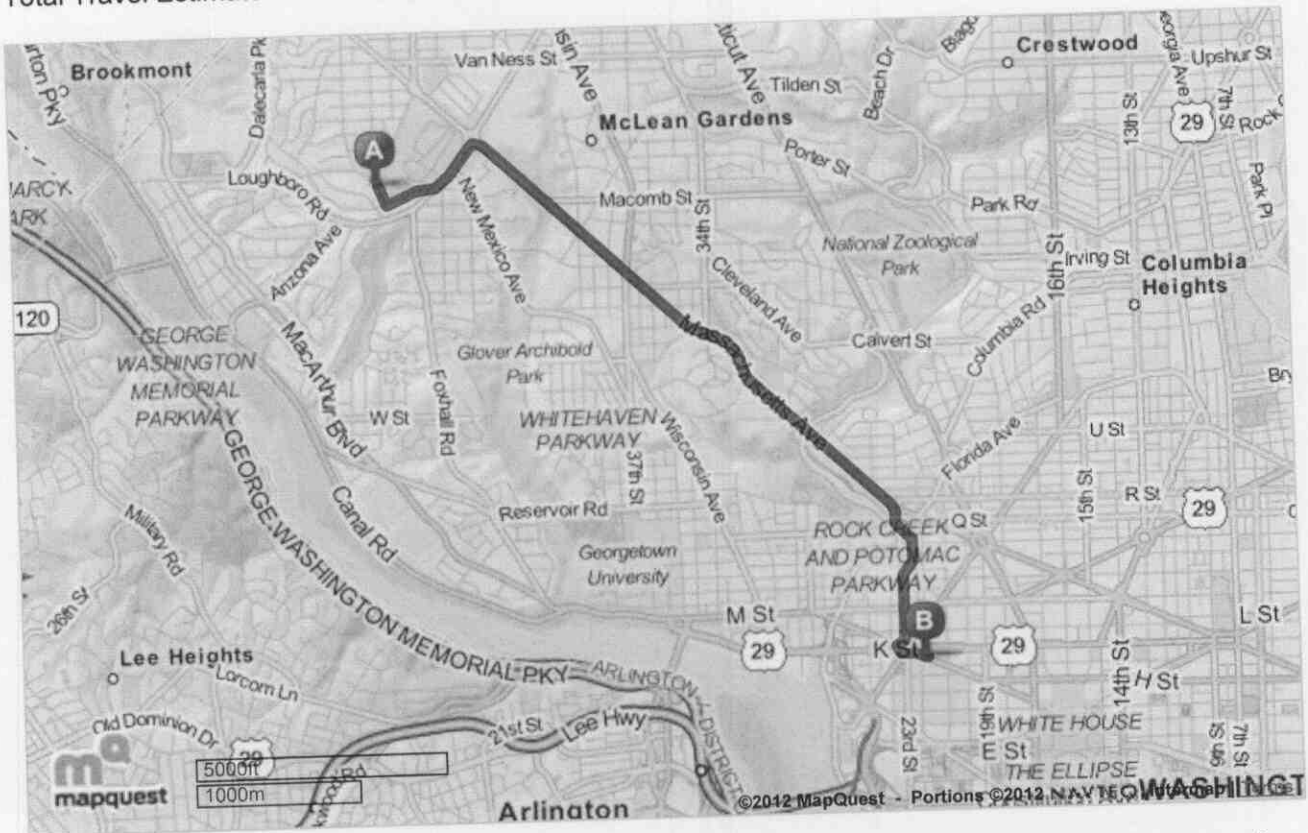


8. **2150 PENNSYLVANIA AVE NW** is on the **right**. [Map](#)



2150 Pennsylvania Ave NW, Washington, DC 20037-3201

Total Travel Estimate: 4.13 miles - about 12 minutes



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Activity Hazard Analysis

Activity/Work Task: Demolition - 4825 Glenbrook Road	Overall Risk Assessment Code (RAC) (Use Highest Code)	L
--	---	---

Project Location: NW, Washington, DC

Risk Assessment Code (RAC) Matrix

COMPANY: Demolition Services, Inc. (DSI)	Severity	Probability				
Date Prepared: 12/8/11		Frequent	Likely	Occasional	Seldom	Unlikely
Prepared By (Name/Title): Ron Feather, Project Manager	Catastrophic	E	E	H	H	M
	Critical	E	H	H	M	L
Reviewed By (Name/Title): Ron Feather, General Superintendent	Marginal	H	M	M	L	L
	Negligible	M	L	L	L	L

Activity Hazard Analysis (AHA)

Notes: Daily PPE requirements include Hard Hat, Safety Glasses, Reflective Vest, and Steel Toe Shoes. Any additional specific PPE requirements will be listed after Proper PPE

Step 1. Review each "HAZARD" with identified safety "Controls" and determine RAC (see above)

"Probability" is the likelihood to cause an incident, near miss, or accident and identified as: Frequent, Likely, Occasional, Seldom or Unlikely.

"Severity" is the outcome/degree if an incident, near miss, or accident did occur and identified as: Catastrophic, Critical, Marginal, or Negligible.

Step 2: Identify the RAC (Probability/Severity) as E, H, M, or L for each "Hazard" on AHA. Annotate the overall highest RAC at the top of AHA.

RAC Chart	
E = Extremely High Risk	
H = High Risk	
M = Moderate Risk	
L = Low Risk	

Job Phases	Hazard	Controls	RAC
<u>Mobilization</u>	1. Slips and trips on uneven, wet, muddy, or icy surfaces	1. Wearing NON SLIP SOLE foot wear (rubber boots with steel toe & shank), EM-385-1-1 section 5.A.06(a) If the temperature is below freezing, work will be suspended as long as it takes to ensure that no icy surfaces exist. Keep area clear of clutter (good housekeeping).	1. L
	2. Poisonous Plants	2. Site personnel will be made aware of potential for injury by contact with poisonous plants indigenous to the area in and around the work area. EM-385-1-1 section 6.D.03	2.L
	3. Physical injury while lifting, unloading equipment or materials	3. All persons shall be physically, medically, and emotionally (ready, willing, and able) qualified for performing the duties to which they are assigned. EM- 01.C.01 Operators of any equipment or vehicle shall be able to read and understand the signs, signals, and operating instructions in use. EM-385-1-1 section 1.C.03	3.L
	4. Chemical Hazards	4. Project specific MSDS onsite in a conspicuous location. Daily Inspections of Equipment and Materials EM-385-1-1 section 1.B.05. Hazard communication training will be performed according to Parsons procedures.	4.L
	5. Hand Puncture or Laceration	5. Daily Toolbox Talks, Weekly Safety Briefings and Inspections	5.L
	6. Physical Danger to Public or other Trades	6. Danger/ Warning signs to keep out general public and/or other trades EM-385-1-1 section 8.A.01	6.L
	7. Fire Hazard	7. Daily clean up will be provided per the demo plan, taking into consideration the nature of the work. Regular cleaning shall be conducted in order to maintain safe conditions in the workplace. EM-385-1-1 section 2.B.01 Discuss Location of Fire Extinguishers EM-385-1-1 section 9.E.03 Emergency Contact Numbers will be clearly and conspicuously	7.L

<p>Hot Work (General Fire Protection & Prevention)</p> <p>Oxyacetylene welding -Compressed gases (stored in cylinders)</p>	<p>5. Injury from falling material or debris</p> <p>6. Physical Hazards during Maintenance</p> <p>7. Chemical Hazards</p> <p>8. Intrusive activity (moving past heavy equipment or machinery)</p> <p>9. Being struck by trucks while loading out</p> <p>10. Physical exhaustion</p> <p>11. Fire hazards of heavy equipment</p> <p>12. Nuisance dust in adjacent work areas or public spaces</p>	<p>1-1 section 21.H.05.d(4)c.</p> <ul style="list-style-type: none"> • Proper fall protection will be required if heights are over 6’. <p>We have included fall protection as a company standard. We do not intend on working from elevated surfaces to perform the demolition.</p> <p>5. During demolition, continuing inspections by a competent person shall detect hazards resulting from weakened or deteriorated floors, walls, or loosened material. EM-385-1-1 section 23.A.10 Use care in getting materials to ground EM- 23.B.02</p> <p>6. Mechanized equipment shall be shut down before and during fueling operations, and during maintenance. Closed systems, with an automatic shut-off that will prevent spillage if connections are broken, may be used to fuel diesel powered equipment left running. EM-385-1-1 section 16.A.06 Only certified mechanics or heavy equipment operators familiar with equipment parts and operation shall work on machinery. Hazard communication training will be performed according to Parsons procedures.</p> <p>7. Store all materials safely and keep MSDS on hand. Emergency Contact Numbers will be clearly and conspicuously posted on site EM-385-1-1 section.1.E.05</p> <p>8. Listening for BACK UP ALARM , keeping eye contact with the operator</p> <p>9. Site Control Zones. Designating routes of ingress & egress with safety cones, “Right of Way” signage. The designated means of access shall be indicated on the site map. Other access ways (into work area/ jobsite) shall be indicated as not safe for access and closed at all times. EM-385-1-1 section 23.A.09.a</p> <p>10. Break often, All Persons will be physically, medically, and emotionally qualified for assigned duties. EM-385-1-1 section 1.C.01</p> <p>11. Maintain equipment in good, safe working order; good housekeeping practices; Flammable or combustible liquids shall be drawn from, or transferred into, containers or tanks within a building or outside only through a close piping system, from safety cans, by means of a device drawing through the top, or from a container, or portable tanks, by gravity or pump, through an approved self-closing valve. EM-385-1-1 section 9.B.21.c</p> <p>12. Water will be the main source of dust control. Water will be sprayed onto the structure from a ground guy controlling the hose. Water supply will be provided by existing hydrants.</p>	<p>5. L</p> <p>6. L</p> <p>7. M</p> <p>8. M</p> <p>9. L</p> <p>10. L</p> <p>11. L</p> <p>12.L</p>
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	<ol style="list-style-type: none"> 1. Breach of hoses and/or cables, tripping, falls 2. Equipment Crush Points, Pinch points 3. Burning of arms, hands, face/Flash burns 4. Inhalation of smoke / Atmospheric Hazards 5. Injury from falling material /slag 6. Lines and compressed gas cylinders being struck by falling debris/ slag 7. Fires 8. Damage to building materials 9. Storage and transport of compressed gasses 	<ol style="list-style-type: none"> 1. Areas below cutting/torching to be kept clear. Positioning cables, hoses, and other equipment clear of passageways, ladders, and stairways. Safe Work Practices, proper placement of supply lines. Communication with air horns No smoking. EM- 10.C.01, EM- 09.E.03, 2. A spotter will be used to help locate personnel around the equipment while moving 3. Wearing NON FLAMMABLE protective PPE during HOT WORK torch cutting, Oxy Welding operations , Welding mask, gloves, and other PPE during use, 4. Proper/ Adequate Ventilation EM- 10.B.01 PPE- the use of burning/welding jackets with full-length sleeves, long pants EM- 10.A.09 5. Experienced Personnel on Hot Work / Allows use care in lowering materials that have been torch cut to the ground. 6. Keep area below cutting/torching clear. Double Chaining of flammable materials and compressed gas cylinders EM- 10.D.02 7. Positioning fire suppression equipment adjacent to <u>HOT WORK PERMIT</u> working areas. <ol style="list-style-type: none"> a. Inspecting Fire Extinguishers prior to starting <u>HOT WORK</u> b. Designating <u>HOT WORK AREAS</u> by means of safety cones, caution tape, Do Not Enter tape. c. Having <u>HOT WORK PERMIT</u> on site at all times d. Maintaining <u>A DESIGNATED FIRE WATCH</u> during and up to <u>60 minutes</u> after hot work has stopped 8. Fire Watch, Good Housekeeping 9. Compressed gasses will be stored and transported in accordance of EM385-1-1, Local, State, and Federal guidelines 	<ol style="list-style-type: none"> 1. L 2.L 3.L 4.L 5.L 6. L 7.L 8.L 9.L
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<p>Site Cleanup & Demobilization</p>	<ol style="list-style-type: none"> 1. Fuel spill while loading equipment 2. Slip, trip, and fall hazards while loading equipment 3. Danger of losing equipment, tools, chains during transport 4. Improper loading of equipment 5. Disposal of any spilled materials 	<ol style="list-style-type: none"> 1. Have fuel spill equipment handy and do not fuel hot or energized equipment. 2. Keep hands and feet from moving parts 3. Inspect stowage of equipment for transport offsite 4. Properly secure (with lines/chains) any/all equipment on trailers for transport off-site. 5. In the event of spilled materials, contaminated materials will be collected and disposed of in accordance with all Local, State, and Federal guidelines. 	<ol style="list-style-type: none"> 1.L 2.L 3.L 4.L 5. L
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Activity Hazard Analysis (AHA)

Equipment to be Used	Training Requirements	Inspection Requirements
1. Rubber tire backhoe	1. In house training on all equipment	1. Daily safety inspections: seat belt, back up alarm
2. Excavator	2. In house training	2. Daily safety inspections, seat belt, windshield, back up alarm
3. Track skid steer	3. In house OSHA safety training	3. Daily safety inspections, seat belt, back up alarm
4. Equipment Trailer	4. In house OSHA safety training	4. Daily inspections
5. Man Lift, Full body harness	5. Boom Lift Certification, proper use and how to wear FBH SHALL BE reviewed by Competent Person	5. Daily inspections
6. Hand Tools	6. On the job training	6. Work shift inspections
7. Compressed cylinders, torches	7. Gas Cylinder Safety & Handling Training	7. Daily inspection of cutting tips, regulators & gauges, hose connections, MSDS on site. Hazard communication training will be performed according to Parsons procedures.
8. Two 10 lb. Fire Extinguishers	8. Knowledge of how to operate extinguishers (in house safety training)	8. Daily inspection
9. One 25 MAN FIRST AID kit	9. First Aid & CPR	9. Certification on Site
10. Chop saw	10. Operational, safety and hands on training	10. Daily inspections
11. Fuel container	11. Experienced operator	11. Metal can with ground screen, labeled, and MSDS. Hazard communication training will be performed according to Parsons procedures.
12. Fuel Spill Containment Kit	12. How to apply, use and dispose of USED supplies	12. Check spill kit inventory, replace missing supplies

Date: December 9, 2011

Subcontractor: Demolition Services, Inc. (DSI)

Competent Persons (EM- 01.A.13.c): Ron Feather, 703-585-9058

Justin Stanley, 703-656-1828

ACTIVITY: Recover refrigerant from HVAC systems
 ANALYZED BY: Scott Dykstra, Rapid Recovery®

DATE: July 13, 2011

<u>Principal Steps</u> Identify the principal steps involved and the sequence of work activities	<u>Potential Safety/Health Hazards</u> Analyze each potential step for potential hazards	<u>Recommended Controls</u> Develop specific controls for each hazard
Hook up Recovery equipment	Tripping hazard, refrigerant release	Route hoses carefully to avoid tripping. Use of low loss refrigerant connections. Check hoses and connections. Make sure area is clear of debris. Keep non construction personnel out of area. All users and bystanders must wear proper PPE
Recover refrigerant	Refrigerant release	Monitor equipment, hoses. PPE must be worn. Proper gloves, hearing protection and safety glasses must be worn

<u>Equipment to be used</u> List equipment to be used in the work activity	<u>Inspection Requirements</u> List inspection requirements for the work activity	<u>Training Requirements</u> List training requirements, including hazard communication
Recovery machine	Pre-activity inspection Daily safety inspection	EPA certified refrigerant course for proper handling of refrigerants

Disposal Permits

East End Landfill

Cox's Darbytown Road Landfill



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

PIEDMONT REGIONAL OFFICE

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L. Preston Bryan, Jr.
Secretary of Natural Resources

David K. Paylor
Director

Gerard Seeley, Jr.
Regional Director

SOLID WASTE FACILITY PERMIT

PERMIT NUMBER 524

Facility Name: East End Landfill

Facility Type: Construction/Demolition/Debris Landfill **Latitude:** 37°29'53"N

Site Location: Henrico County **Longitude:** 77°22'26"W

Location Description: The facility is located approximately 1.7 miles northwest of Laburnum Avenue, and approximately 1000 feet North of Oakland Road, on the east side of Darbytown Road in Eastern Henrico County. The facility is located approximately 1,600' off of Darbytown Road. The total permitted landfill property is approximately 100 acres.

Background: The facility is to serve as a construction/demolition/debris landfill in compliance with 9 VAC 20-80-10 et seq., Amendment 1. The facility is designed to accept 170 cy/day. The disposal area for Cell I is 5.1 acres, the disposal area for Cell II is 4.9 acres. The combined disposal area for the site is approximately 10 acres. Acceptable wastes are outlined in Section V.B of the Operations Manual. On July 7, 2005, the Part A Application for a lateral expansion of the landfill was approved. This approval increased the authorized disposal area to 29.92 acres (Cells I-VI). The facility has submitted a Part B Application to construct and operate Cell III. A Temporary Authorization for the construction of Cell IIIA was issued on December 8, 2005.

Permit Highlights: This permit was originally issued on July 19, 1988. It was later amended on June 16, 1999 to update all areas of the permit but specifically to incorporate the design of Cells IIA and IIB.

Permit Amendments: This minor permit amendment is the second modification of Permit Number 524. This permit amendment is to change the name from Simons Hauling Company Debris Landfill to East End Landfill. In addition, the landfill ownership will transfer from Simons Hauling, Inc., to East End Landfill, LLC. A major permit amendment was completed in 1999 to generally update all

removed and disposed of at a facility permitted to accept it, typically in a designated asbestos disposal cell at a sanitary landfill or at a special purpose landfill.

v. Other Wastes

Polychlorinated biphenyl (PCB) waste is defined as material containing more than 50 parts per million (ppm) PCB (9 VAC 20-80-650). PCBs are no longer being made in the United States, but are still present in many electrical transformers, capacitors, and insulating fluids. They have a heavy, oil-like consistency, and are clear to yellow in color. PCB waste, or waste containing PCB, is not acceptable at this facility.

Radioactive wastes are also not acceptable for disposal at this facility. Medical treatment facilities are the most common sources of radioactive waste.

Pesticides are prohibited from disposal at this facility.

Tires are only allowed for disposal at this facility if they are split or shredded. Otherwise, they must be segregated and stored in a designated area, pending proper treatment or disposal.

Lead-acid batteries and used oil are prohibited from disposal at the facility.

Construction and demolition drums and other bulk containers, as discussed previously, may only be accepted if they are empty, properly cleaned, opened at both ends, and crushed, as explained in Section II.A.1.ii of this plan, and can be defined by as a construction waste, demolition waste, or debris waste by 9 VAC 20-80-10. Pesticide containers are not accepted at this facility.

All free liquids are unacceptable. Free liquids that are absorbed onto a solid CDD waste material are acceptable, as long as they are not classified as hazardous.

2. Remove Unauthorized Waste

Facility personnel will be trained in the proper steps to take if unauthorized waste is accepted at the facility, following the response actions and reporting requirements discussed in Section IV. The training will include procedures for segregating and containing the waste. Personnel will immediately notify the Facility Manager if unauthorized waste is discovered or accepted at the facility. The Facility Manager will then follow the requirements of 9 VAC 20-80-113.B. to remove the unauthorized waste, segregate it, and to provide to the department a record identifying that waste and its final disposition. No waste that has been discharged at the facility may be back-loaded and sent off-site. Upon notifying the DEQ, the Facility Manager may arrange for a permitted transport contractor to remove the waste from the facility for disposal or treatment at an approved facility or request a special waste authorization.

In the event unauthorized waste is detected in vehicles prior to tipping or during inspections, the driver of the vehicle will be directed to leave the site. If unauthorized waste is

iii. Regulated Medical Waste

Regulated medical waste is defined as any solid waste that is capable of producing an infectious disease, or is likely to have been contaminated by a pathogenic organism that can cause disease. Regulated medical wastes (RMW) include cultures and stock of microorganisms and biological materials; blood and blood products; tissues and other anatomical wastes; sharps used in patient care or veterinary practice; animal carcasses and body parts; residue resulting from the cleanup of a spill of RMW; and any solid waste that is mixed with RMW.

Medical waste is typically stored at the generator and delivered to disposal facilities in labeled, red, liner bags to render the waste easily visible and recognizable.

iv. Asbestos

There are two main types of asbestos waste: friable and nonfriable. This facility is permitted to accept most nonfriable asbestos waste, and is not permitted to accept friable asbestos. Each type of asbestos waste is discussed in the following paragraphs.

Nonfriable asbestos-containing material (ACM) is any material containing more than 1% asbestos and cannot be crumbled, pulverized, or reduced to powder by hand pressure. Nonfriable ACM is acceptable waste for disposal at this facility. Category I nonfriable ACM includes materials such as packings, gaskets, resilient floor covering, and asphalt roofing products. Category II nonfriable ACM includes all other ACM that cannot be crumbled, pulverized, or reduced to powder by hand pressure and are not included in Category I. This material must be covered with soil prior to compaction or other mechanical action to ensure that the material does not become friable.

Friable ACM is defined as any waste material containing more than 1% asbestos that, when dry, is capable of being crumbled, pulverized or reduced to powder by hand pressure. This facility is not permitted to accept friable ACM for disposal.

Regulated ACM (RACM) is defined in 9 VAC 20-80-640.A as friable asbestos waste material; Category I nonfriable ACM that has become friable; Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading; and Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations. RACM is typically generated in manufacturing, fabrication, and spraying operations, as well as during building demolition and renovation. RACM is required to be placed in leak-tight containers and wrapped with warning labels prior to being transported and disposed of. Also, approved transport vehicles are required to contain markings and signs indicating asbestos. This facility is not permitted to accept RACM for disposal.

Category I and II nonfriable ACM that do not meet the requirements of RACM may be disposed of at this facility. Should any RACM be identified in incoming waste loads, it must be

AUTHORIZED AND UNAUTHORIZED WASTES

AUTHORIZED WASTE

Acceptable materials allowed for disposal at this facility are construction and demolition debris, white goods, and discarded tires. Acceptable waste materials (refuse) shall include only those materials permitted by state or federal law. Refuse considered to be acceptable for disposal are listed below.

- Ash but not including coal-combustion by products and other MSW or industrial wastes;
- Category I and II Non-friable asbestos;
- Construction debris;
- Debris waste;
- Demolition debris;
- Land clearing debris;
- Tires (split, cut, or shredded);
- Authorized special wastes;
- White goods (chlorofluorocarbons and PCBs must be removed from white goods prior to placement on the working face); and,
- Packaging materials for construction materials.

UNAUTHORIZED WASTE

Unacceptable or Prohibited Materials - Materials considered to be unacceptable or prohibited include, but are not limited to, the following:

Non-hazardous solid waste such as the following:

- Abandoned vehicles, trucks or parts generated from vehicles;
- Animal and agricultural wastes such as manure or crop residues;
- Compressed gas cylinders;
- Commercial waste;
- Dead animals or animal carcasses or parts resulting from medical research activities or destruction of diseased animals;
- Drums that are not empty, crushed, both ends knocked out, and are triple-rinsed;
- Friable asbestos containing material;
- Garbage;
- Hazardous waste as defined by the USEPA and DEQ, pathological wastes, explosives, or radioactive materials;
- Household waste;
- Industrial waste;
- Liquid waste or any waste, except residential and household trash, containing free liquids as determined by the EPA Paint Filter Liquids Tests outlined in the EPA Publication SW-846 entitled, "Test Methods of Evaluating Solid Waste, Volume C: Laboratory Manual Physical/Chemical Methods," Third Edition, dated November 1986;



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Preston Bryant
Secretary of Natural Resources

David K. Paylor
Director

Gerard Seeley, Jr.
Regional Director

July 20, 2006

Mr. Mathew P. Appleget, President
The East End Landfill, LLC
2126 Bancroft Place, NW
Washington, D.C. 20008

RE: **East End Landfill, Permit No. 524**
Draft Permit Amendment
Henrico County, Virginia

Dear Mr. Appleget:

Enclosed are replacement pages for Permit No. 524 for the East End Landfill. The attached pages should serve as replacements to pages from the draft permit sent to you under a cover letter dated May 12, 2006. The permit has been amended to upgrade operation and design standards and include information specific to the design, operation and maintenance of Cell III.

No comments were received from the general public during the public participation period, but minor technical revisions were submitted by the applicant. The revised sections of the technical specifications, construction quality assurance plan and design drawings have been incorporated into the final permit amendment. A copy of the revised pages in addition to clean copies of the permit preamble and Module I are attached to this correspondence.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date of service of this decision to initiate an appeal of this decision, by filing notice with:

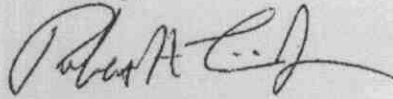
David K. Paylor, Director
Virginia Department of Environmental Quality
ATTN: Waste Division
P.O. Box 10009
Richmond, Virginia 23240-0009

Mr. Appleget
East End Permit Amendment
July 20, 2006
Page 2 of 2

In the event that this decision is served to you by mail, three days are added to that period. Please refer to Part Two of the rules of the Supreme Court of Virginia, which describes the required content of the Notice of Appeal, including specification of the Circuit Court to which an appeal is taken, and additional requirements governing appeals from decisions of administrative agencies.

Please note that it is the responsibility of applicant to obtain any other permits or authorizations that may be necessary. If there are any questions, please contact Kurt Stafford, Environmental Engineer Senior, at (804) 527-5033.

Sincerely,



Robert Timmins, Jr
Regional Waste Program Manager

Attachments: Permit Preamble (without draft watermark)
Module I (without draft watermark)
Revised pages submitted by Applicant

cc: DEQ – Patrick Bishop, PRO (letter only)
DEQ – Geoff Christie, CO (w/ attachments)
DEQ – Kurt Stafford, PRO (w/ attachments)
DEQ – File #524 – PMT (w/ attachments)

Mr. Carlton Dudding, PE (w/ attachments)
Executive Vice President
TEEL, LLC
1820 Darbytown Road
Richmond, VA 23231

Mr. William Hase, PE (w/ attachments)
Draper Aden Associates, Inc.
8090 Villa Park Drive
Richmond, Virginia 23228

Permit Preamble and Module I (without draft
watermark)



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

PIEDMONT REGIONAL OFFICE

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L. Preston Bryant, Jr.
Secretary of Natural Resources

David K. Paylor
Director

Gerard Seeley, Jr.
Regional Director

SOLID WASTE FACILITY PERMIT PERMIT NUMBER 524

Facility Name: East End Landfill

Facility Type: Construction/Demolition/Debris Landfill **Latitude:** 37°29'53"N

Site Location: Henrico County **Longitude:** 77°22'26"W

Location Description: The facility is located approximately 1.7 miles northwest of Laburnum Avenue, and approximately 1,000 feet North of Oakland Road, on the east side of Darbytown Road in Eastern Henrico County. The facility is located approximately 1,600 feet off of Darbytown Road. The facility address is 1820 Darbytown Road, Richmond, VA 23231.

Background: The facility is to serve as a CDD landfill and accepts construction, demolition, and debris waste in compliance with 9 VAC 20-80-10 et seq. (VR 672-20-10). Waste will be received from Henrico County and the surrounding localities. Currently, this permit covers waste disposal for Cells I, IIA, IIB, IIIA and IIIB. The facility site area is approximately 52.9 acres. The original permit covered approximately 10 acres of waste disposal area within the 22 acres. Cell I has a disposal area of 5.1 acres and began receiving waste in July 1988. Cell IIA began receiving waste in June 1999 while Cell IIB started receiving waste in February 2001. The combined disposal area of Cells IIA and IIB is 4.9 acres. In February 2001, Cell I and portions of Cell IIA received final cover. On July 7, 2005, a Part A Application for a lateral expansion of the landfill was approved. Under this expansion, the total permitted acreage is 40.7 acres of which an additional 20 acres have been designated as waste disposal area. This addition brings the total waste disposal area to approximately 30 acres. Cell II is currently active. Cell IIIA, approximately 2.6 acres, is lined and is permitted to receive CDD waste. Cell IIIB, approximately 2.8 acres, is also lined and is permitted to receive CDD waste. The future Cells IV, V and VI encompass approximately 14.7 acres. CDD wastes will be delivered to the site by private haulers and other commercial vehicles. The wastes accepted will conform to those wastes listed in Permit Module II (Section V.B.2 of Operations Manual). The landfill capacity for Cells I

through IIIB is estimated to be 1,000,000 cubic yards. The remaining capacity for Cells II through IIIB is approximately 669,700 cubic yards over a design life of 5.1 years (assuming a waste density of 0.6 tons/cy).

Permit Limits: The facility encompasses 40.7 acres, of which approximately 29.9 acres have been designated as waste disposal area. The approved design capacity for Cells II through IIIB is approximately 669,700 cubic yards with an estimated site life of 5.1 years. The landfill is limited to an average daily intake rate of 227 tons per day and maximum daily intake rate of 900 tons per day based on the facility's Design Report and Operations Manual in the permit.

Permit Highlights: This permit is based on the modular concept to assure completeness and consistency of the documents. It includes several permit modules which specify general permit conditions and facility requirements and provide for appropriate design, operation, maintenance, closure, post-closure, and monitoring of the solid waste management facility permitted. Various attachments further describe the approved plans for the design and operation of the facility.

The soil liner system for Cells IIIA and IIIB consists of (from bottom to top):

- Compacted subgrade
- Minimum 12" thick compacted soil liner, $K \leq 1 \times 10^{-7}$ cm/sec
- Minimum 12" thick drainage layer, $K \geq 0.05$ cm/sec

The final cover system will consist of the following (from bottom to top):

- Minimum 12" thick intermediate cover
- Minimum 18" thick soil infiltration barrier layer (soil cap) ($K \leq 1 \times 10^{-7}$ cm/sec)
- Minimum 12" thick erosion support layer
- Minimum 6" thick top soil or amended soil

Leachate from the facility is pumped to holding tanks where it will be pumped and hauled to a Publicly-Owned Treatment Works (POTW). The maximum 7-day leachate holding capacity of the facility during and prior to operation of Cell IIIA and IIIB will be 86,100 and 115,500 gallons, respectively.

Permit Amendments: This is the fourth modification of Permit Number 524. This major permit amendment describes the design, operation, closure and post-closure care requirements for Cell III. It also upgrades all sections of the permit. The facility submitted a Part B Application to construct and operate Cell III, which will be broken down into two phases, Cell IIIA and IIIB. The third amendment (minor) modified the ownership information from East End Landfill, LLC, to The East End Landfill, LLC. The second amendment (minor amendment) modified the name of the facility from Simons Hauling Company Debris Landfill to East End Landfill. In addition, the second amendment transferred the ownership of the facility from Simons Hauling, Inc., to East End Landfill, LLC. A Temporary Authorization for the construction of Cell IIIA was issued on December 8, 2005. The first

permit amendment (major amendment) was completed in 1999 to generally update the permit and incorporate the design of Cells IIA and IIB.

THIS IS TO CERTIFY THAT:

The East End Landfill, LLC
3450 Charles City Road
Richmond, VA 23231

is hereby granted a permit to construct, operate, and maintain the facility as described in Permit Modules I, II, IV, X, XI, XII, XIII and associated Permit Attachments. These Permit Modules and Permit Attachments are as referenced hereinafter and are incorporated into and become a part of this permit.

The herein described activity is to be established, modified, constructed, installed, operated, used, maintained, and closed in accordance with the terms and conditions of this permit and the plans, specifications, and reports submitted and cited in the permit. The facility shall comply with all regulations of the Virginia Waste Management Board. In accordance with § 1408.1(D) of the Code of Virginia, prior to issuing this permit, any comments by the local government and general public have been investigated and evaluated and it has been determined that the proposed facility poses no substantial present or potential danger to human health or the environment. The permit contains such conditions and requirements as are deemed necessary to comply with the requirements of the Virginia Code, the regulations of the Board, and to prevent substantial or present danger to human health or the environment.

Failure to comply with the terms and conditions of this permit shall constitute grounds for the revocation or suspension of this permit and for the initiation of necessary enforcement actions.

The permit is issued in accordance with the provisions of § 10.1-1408.1.A, Chapter 14, Title 10.1, Code of Virginia (1950) as amended.

Issued : July 19, 1988

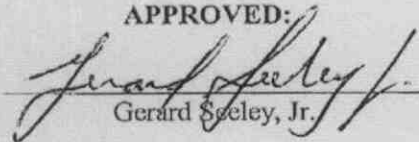
Amendment 1: June 16, 1999 (Major Amendment 1)

Amendment 2: May 1, 2006 (Minor Amendment 2)

Amendment 3: May 11, 2006 (Minor Amendment 3)

Amendment 3: July 19, 2006 (Major Amendment 4)

APPROVED:


Gerard Seeley, Jr.

DATE: 7/21/06
Amendment No. 4



COMMONWEALTH of VIRGINIA

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Secretary of Natural Resources

Dennis H. Treacy
Director

(804) 698-4000
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SOLID WASTE FACILITY PERMIT PERMIT NUMBER 525

Facility Name: Cox's Darbytown Road Landfill

Facility Type: CDD Landfill **Latitude:** 37°29'51"

Site Location: Henrico County **Longitude:** 77°22'30"

Location Description: The facility is located in eastern Henrico County, approximately 1.7 miles northwest of Laburnum Avenue, or approximately 0.2 miles northeast of the intersection of Darbytown Road and Bickerstaff Road, on the eastern side of Darbytown Road. The facility is approximately 34 acres in size, with 21 acres designated for disposal.

Background: The facility was initially permitted as a sanitary landfill by Permit No. 188, which was issued on July 3, 1975. That area is designated as Cell 1, and is approximately 13-acres in size. That permit was amended June 20, 1989, by Permit No. 525, which superseded Permit No. 188. The purpose of that amendment was to incorporate an expansion area designated Cell 2, which is approximately 8 acres in size. Cell 2 was permitted with a liner and leachate collection system; however, it was not ever developed. This current amendment is to amend the liner and leachate collection system of Cell 2 to comply with current standards. A Part A application was submitted for the Cell 2 area, and it was approved with conditions on January 17, 1995. The facility's intent is to serve as a CDD landfill, in compliance with 9 VAC 20-80-10 et. seq. (VR 672-20-10), Amendment 1. The facility is designed to accept 2000 cubic yards of CDD waste per day, and with a Cell 2 design volume of approximately 470,000 cubic yards, should have a design life of six years. The service area of the landfill consists of the City of Richmond and surrounding counties.

Permit Highlights: This permit amends the existing permit which was issued July 3, 1975, and last amended on June 20, 1989. This permit includes permit modules and associated permit attachments which are, in general, based on information submitted in the permit application.

Variations: In conjunction with this major amendment, the permittee petitioned the director for a variance to the Virginia Solid Waste Management Regulations. Specifically, the permittee seeks relief from 9 VAC 20-80-260.B.14.a.(2) [§ 5.2.B.14.a.(2), VR 672-20-10], which requires that clay liners must be installed at a minimum 2% slope, and 9 VAC 20-80-260.B.14.b.(4) [§ 5.2.B.14.b.(4), VR 672-20-10], which requires that synthetic liners must be installed at a minimum 2% slope. The variance will allow the permittee to install either the clay or synthetic liner options at a minimum slope of 1.0% from the southern limits to the center of the cell, and at a minimum slope of 2.5% from the center towards the sump boxes. The permittee has demonstrated that after settlement the entire liner will be inclined at a slope of approximately 2%.

THIS IS TO CERTIFY THAT:

Cox's Darbytown Landfill, Inc.
5200 Hatcher Street
Richmond, Virginia 23231

is hereby granted a permit to construct, operate, and maintain the facility as described in the attached Permit Modules I, II, IV, X, XI, XII, and XIII. These Permit Modules and Permit Attachments are as referenced hereinafter and are incorporated into and become a part of this permit.

The herein described activity is to be established, modified, constructed, installed, operated, used, maintained, and closed in accordance with the terms and conditions of this permit and the plans, specifications, and reports submitted and cited in the permit. The facility shall comply with all regulations of the Virginia Waste Management Board. In accordance with Chapter 14, § 10.1 - 1408.1(D) of the Code of Virginia, prior to issuing this permit, any comments by the local government and general public have been investigated and evaluated and it has been determined that the proposed facility poses no substantial present or potential danger to human health or the environment. The permit contains such conditions and requirements as are deemed necessary to comply with the requirements of the Virginia Code, the regulations of the Board, and to prevent substantial or present danger to human health or the environment.

Failure to comply with the terms and conditions of this permit shall constitute grounds for the revocation or suspension of this permit and for the initiation of necessary enforcement actions.

The permit is issued in accordance with the provisions of § 10.1-1408.1.A, Chapter 14, Title 10.1, Code of Virginia (1950) as amended.

Issued: July 3, 1975

Amendment: June 20, 1989

APPROVED:

Dennis H. Treacy
for Dennis H. Treacy

DATE: January 20, 2000
Amended

I. GENERAL

The Operations Manual will serve as the document to describe how the design and construction plan will be implemented throughout the active life of the Darbytown Road Landfill Cell 2 expansion and the post-closure care period. The permitting of the Darbytown Road Landfill expansion is addressed through amending the existing landfill Permit No. 525. The Darbytown Road Landfill will continue to accept only Construction, Demolition, and Debris (CDD) waste as defined by the Virginia Solid Waste Management Regulations (VSWMR). Operations for this expansion will be in accordance with the requirements set forth in Section 5.2.C. of the VSWMR.

II. SERVICE INFORMATION

The waste accepted at the Darbytown Road Landfill will be composed of CDD waste as defined by the VSWMR.

- Construction wastes include, but are not limited to, lumber, wire, sheetrock, broken brick and block, shingles, glass, pipes, concrete, paving materials, and metal and plastics if the metal or plastics are parts of the materials of construction or empty containers for such materials. Occasionally, waste materials resulting from the manufacture of building products are accepted.
- Demolition waste is defined as solid waste which is produced by the destruction of structures and their foundations.
- Debris waste is defined as waste resulting from land clearing operations. These include, but are not limited to stumps, wood, brush, leaves, soil, and road spoils.

Darbytown Road Landfill will not accept municipal solid wastes, hazardous wastes, friable asbestos, any free liquid, compressed gases or semi-liquids.

Site Map

Site Map for Illustration only

