

**Site Evaluation/Permitting
of a
Yard Waste Composting Facility
for
Yeadon Borough, Delaware County**

March, 2003

Prepared By Alternative Resources, Inc.

1.0 Background

Yeadon Borough provides for the curbside collection of leaf waste from mid October to mid December. In order to provide the curbside collection services it requires that crews work daily during this period to collect the leaf waste and transport it to the county's landfill site. This trip is made by a compactor truck at a minimum of one time per day. Each trip costs Yeadon Borough 1 1/2 to 2 man-hours plus vehicle operational cost. The Borough of Yeadon desires to establish a compost facility within its boundaries or in close proximity to them. This effort will reduce cost of collection, increase collection efficiency, provide a convenient yard waste drop off site for residents and provide a valuable compost product for residents free of charge.

2.0 Overview

Given that Yeadon Borough is only 1.6. square miles in size and has a population of 11,980 people residing in 4,794 households it is understandable that the availability of candidate sites would be limited.

The Borough of Yeadon did not own any property, which was conclusive to development of a compost facility. Conrail owned right of ways with ample space that were centrally located and areas of Fairmont Park bordered the Borough on the east. Site drive by inspections and desktop reviews were conducted on several candidate sites. Preliminary contact was made with the property owners and Conrail exhibited an interest assisting the Borough and allowed its sites to be evaluated by ARI and the PADEP (regional office).

Yeadon Borough requested a Technical Assistance for the siting,

design and permitting of a Leaf and Yard Waste Compost Facility as per Pennsylvania Department of Environmental Protection (PADEP) Guidelines. Alternative Resources, Inc. (ARI) has been selected to provide consulting assistance.

Compost produced at the facility will be used by the municipality and made available to their residents, free of charge.

3.0 Facility Sizing

Based on an evaluation of the candidate sites a 1.25-acre site was selected.

Yeadon Borough has a population of approximately 11,700 residents. Given a (generally accepted) generation rate of 200 pounds per capita per year of yard waste times a population of 11,700 a total of 2,340,000 pounds of leaf and yard waste is generated annually. Assuming an average bulk density of leaf and yard waste at 500 pounds per cubic yard, approximately 4,680 cubic yards of leaf waste will be generated by the Borough. The 1.25-acre site will be capable of processing approximately 3,750 yards of leaf waste. The Yard Waste Guidelines allow (as per Section 271 of the regulations) for 3,000 cubic yards of material per acre for the purpose of composting. The site will accommodate more than the 3,750 yards considering the volume reduction experience as a result of microbial activity burst during the first month of the composting process. The site will provide for the vast majority of leaf waste collected.

4.0 Site Evaluation

Following a desktop evaluation of several sites a site owned by Conrail was recommended.

ARI conducted a detailed evaluation of the selected Conrail property. The candidate site was evaluated based on various environmental, social and economic considerations and the limitations and requirements specified in the PADEP "Guidelines for Yard Waste Composting Facilities".

Factors, which require careful consideration when evaluating the site, include:

4.1 Location

Location of a municipal yard waste composting site is one of the prime consideration in the site selection process. The site ideally should be located convenient to the collection area to be served. A central location will minimize travel distance for collection vehicles and resident desiring to drop-off material at the site. The site should be easily accessible preferably by a hard surface road. The most convenient composting site for many municipalities is in close proximity to the municipal building and/or maintenance building. Benefits often include enhanced security and cost savings for equipment and manpower. Location must be weighed against many other factors.

4.2 Site Characteristics

Slope and topography - A gentle slope 2-4 percent is preferred for a site in order to prevent ponding of water (which can potentially cause an odor or vector problem). Ponded water can result in anaerobic conditions and generate malodor or act as a breeding ground for mosquitoes. A gentle slope will also assist in the control of surface water.

Soils Characteristics - Soil characteristics must be carefully evaluated. Soil types, percolation rates and depth to groundwater must be considered. Soils on the site should: be well drained to prevent ponding and assist in storm water runoff, have a structure that can support heavy vehicle use and have a depth to ground water of more than 3.3 feet, to prevent any potential for contamination.

4.3 Proximity to Water Supply

Water is essential to the compost process a nearby water source is required to maintain proper moisture levels in the windrows. Also, water is important for safety (in the event of fire) and for seasonal dust suppression. The water source can be a well, hydrant, lake, river or stream or a tanker truck.

4.4 Acreage

The acreage required is determined based on the volume of material to be processed and stored, at the site (see Facility Sizing) and the land available to the municipality.

4.5 Proximity to Residential Development and Sensitive Receptors

Sites located in close proximity to residential properties or sensitive receptors (schools, hospital, nursing homes, etc.)

should be avoided to the extent if possible. Noise from machinery, odor potential and visibility of the operation are potential nuisances. Noise reduction, odor potential, noise reduction and visual impact can be minimized but at additional cost to the project. Persons who suffer from immune disorders or respiratory problems may be adversely affected by naturally accruing fungal spores (*aspergillus fumigatus*).

4.6 Environmental Impact (land disturbance)

Timber removal, grubbing of brush and excavation required to prepare a site and disturbance or destruction of existing habitat must be weighed carefully.

4.7 Site Preparation Costs

Site preparation cost include: (clearing, grading, excavating, windrow pad and processing area preparation, access road construction and security (fencing and/or a gate).

4.8 PADEP Sitting Restrictions (exclusionary criteria)

Yard Waste composting operations, including storage, composting, and curing, shall not occur in the following areas or the following distances, unless the operator takes special precautions and receives written authorization from the Department:

- a. In a 100-year flood plan.
- b. In or within 300 feet of an exceptional value wetland.
- c. In or within 100 feet of a wetland other than an exceptional value wetland.
- d. Within 100 feet of a sinkhole or area draining into a

sinkhole.

- e. Within 300 feet measured horizontally from an occupied dwelling unless the owner has provided a written waiver consenting to the facility being closer than 300 feet.
- f. Within 50 feet of a property line, unless the operator demonstrates that only curing of compost is occurring within that distance.
- g. Within 300 feet of a water source.
- h. Within 3.3 feet of a regional groundwater water table.
- i. Within 100 feet of a perennial stream.

5.0 Site Recommendation

ARI conducted a preliminary evaluation of sites and recommended a 1.25-acre site located on a Conrail owned property. The property has been previously excavated and filled and is bordered on one side by Conrail tracks and fringed by trees and natural vegetation on the other.

A 1.25-acre site was recommended as suitable based on the following:

- Area can be readily graded to a 2-3 percent slope
- Existing hard surface road for access to site
- Site is secured by fencing on the sides. Additional fencing is required
- Limited residential development (now adjacent to site)
- Central location for use by Borough
- Area requires a limited grading for improved drainage and slope
- Site preparation would have minimal impact on habitat it is a periodically disturbed area.

- Only small trees and brush need to be removed.
- Limited site development cost (grading is required)
- Site is in close proximity to Borough
- Garage for machinery storage

6.0 Registration/Permitting of Compost Facility

ARI met with PADEP regional personnel and conducted a site walk over. ARI developed the Windrow layout for the facility, completed all forms and narratives required under PADEP Guidelines and Regulations (see Attachment A). ARI submitted the compost facility application in March of 2003 to PADEP Regional Office. The application is pending approval.

7.0 Equipment Specification

ARI has recommended that the Borough consider the purchase of a loader with a cubic yard bucket. The machine will be dedicated at least 30% of the time to the operation of the compost facility.

8.0 Operations

Procedures for operations are detailed in the Application (see Attachment A). A trouble-shooting guide (for quick reference) was developed and is included in Attachment B.

9.0 Project Development/Costs

ARI recommended that Yeadon Borough prepare an Act 101, Section 902 Grant Application to request financial assistance for site development costs, equipment and public education.

YEADON BOROUGH

APPLICATION FOR OPERATION OF A YARD WASTE COMPOST FACILITY

UNDER 25 PA CODE SECTION 271.103(h)

PREPARED BY

ALTERNATIVE RESOURCES, INC.
CONSULTANTS IN ENVIRONMENTAL RESOURCE
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SECTION 1

YARD WASTE COMPOSTING FACILITY

APPLICATION

**YARD WASTE COMPOSTING FACILITY
APPLICATION FORM**

Please familiarize yourself with the Pennsylvania Department of Environmental Protection GUIDELINES FOR YARD WASTE COMPOSTING FACILITIES prior to filling out this form.

1. Operator (Name and Mailing Address) Telephone Number
Yeadon Borough (610) 284-1606
P.O. Box 5187
Yeadon, PA 19050

2. Facility: Yeadon Borough Contact Telephone #
Contact: Mr.Christopher R.Van De Velde (610)-284-1606
Owner: Yeadon Borough
Street Address: P.O. Box 5187
Yeadon, PA 19050

State: Pennsylvania Zip Code: 19348
City-Borough-Township of Yeadon
County: Delaware

Sponsoring Municipality: Yeadon Borough

Attach a United States Geological Survey 7.5 miles topographic map identifying the yard waste composting facility site boundaries outlined on it.

Provide proof the operator has the legal right to enter the land and perform the approved activities.
See accompanying letter from landowner (Attachment A-1).

3. Method: Windrow (open air)
Total Acres: One and one quarter acre

Maximum quantity of yard waste and composted materials to be on the site at any one time: 3,000 cubic yards
Yard waste in cubic yards: 3,000 cubic yards
Finished compost in cubic yards: 1800 cubic yards

4. Prepare and include in this application a general site plan* for the facility which illustrates the location of the following items:

Access roads in relation to the nearest public and private roads, wells, and property lines
tipping area - at site of windrow location

surface water controls, erosion and sedimentation controls

NARRATIVE SUPPLEMENT

5. Please address the following items: (attach additional sheets if necessary)

- **Provide a complete list of source(s) of yard waste to be received.**
 - Yeadon Borough will provide a drop off leaf collection program for residents at the site.
 - The Borough of Yeadon will provide leaf waste from its fall leaf collection program.
 - Yard waste generated from Yeadon Borough projects; i.e. park maintenance projects, storm debris from trees, etc.
 - Yard waste collected by the municipality during spring clean-up days.
 - Yard waste generated by residents of the municipality.
- **Describe how the yard waste will be collected and received at the facility?**

A vacuum leaf collection system is used to collect leaves at the curbside in the Borough of Yeadon. The leaf collection truck will deliver leaves directly to the Yeadon Borough Compost Facility. Yard waste collected by the Borough will also be delivered to the site.

Yard waste generated from municipal projects and spring clean-up days will be delivered to the site, in bulk, via municipal trucks.

All yard waste must either be delivered unbagged or must be taken out of the bags by residents delivering it prior to placement at the site.

- **Describe the method of inspecting incoming yard waste and for removing unacceptable material.**

All loads of incoming leaves delivered by the Borough of Yeadon will be inspected during off loading to ensure the

quality of incoming material. Off specification material will be culled by Borough personnel, placed in containers and properly disposed of. Any plastic bags delivered by residents will be opened and unacceptable material (if any) will be removed, placed in a container for proper disposal. The majority of material delivered to the site will be bulk collected by the Borough.

- **Describe the windrow construction methods including equipment to be used.**

Residents delivering material and leaf collection trucks will unload leaves in the approximate location where a windrow is to be formed. A municipal owned front-end loader with a one (1) cubic yard bucket will be used to form and turn windrows.

- **Describe the windrow size: Initial dimensions will be 16' wide x 8' high x Varies* length.**

* Not to exceed 450' feet in length

- **Describe the source of supplemental water, which will be used to maintain optimal 40 to 60% moisture content of compost piles or windrows.**

The fire company pumper truck will provide supplementary water.

- **Indicate the frequency of windrow turning:**
Turning will occur every 1 to 3 months depending on indications of windrows (primarily temperature).
- **Indicate the temperature range to be maintained:**
A temperature range of 113°F to 140°F will be maintained.
- **Indicate the method of windrow turning:**
A front-end loader will be used to lift the material and mix it.
- **Describe the method for determining turning frequency.**

Turning frequency will be based on establishing the proper environment for maximum thermophilic microbial activity.

The key indicator for establishing turning frequency will be internal windrow temperature. Windrows will be turned to

maintain temperatures in the lower thermophilic range (113°F to 140°F). The thermophilic temperature range should be reached within two weeks to a month of windrow formation. Once the inner core of the windrow exceeds 140°F the windrow will be turned. If the temperature of the pile drops below 113°F, the windrow will likewise be turned to add oxygen to the pile and increase microbial activity. Once the temperature drops below 113°F and turning the windrow does not result in an increase in temperature, the compost will be moved to a curing pile.

- **Describe the approximate duration of the composting cycle: (in days)**

Describe the composting process: 120-180 days

Describe the curing period for compost: 30-90 days

Indicate the time required for storage and distribution: 0-90 days

Indicate the total time required for composting operation: 130-360 days

- **Describe the marketing and distribution plan for the finished compost product.**

Primarily municipal use for parks, top dressing and fill areas. Compost will also be made available to residents. The municipality will place an ad in a local newspaper that compost would be available at the site on certain date(s) and time(s).

- **Describe the residue disposal plan and identify the disposal or processing site(s) to be used.**

Any waste or residue collected on site will be placed in designated containers. Waste will be loaded into trucks owned by the Borough and delivered to the County's landfill.

- **Describe the plan for emergency response (fire police, etc.).**

A phone is located at Borough Garage (located across from the compost site) will be used in case of an emergency. Personnel working at the site will have a cell-phone or radio. Both the police and fire departments will also be

briefed as to the compost sites, layout and standard procedures. The fire station is within 7 blocks of the site.

- **Outline the public information and education program (attach samples of literature if available).**

The Borough will discuss the program at public meetings and publish a display advertisement approximately two (2) times per leaf collection season, if warranted. The Borough will also advertise the availability of compost. Brochures will be developed to encourage participation and public service announcements and articles will be sent to local media, Churches [for bulletins], flyers provided to schools and information posted on the Borough's Web Site.

ATTACHMENT A

SITE LAYOUT

(BASE MAP)

ATTACHMENT B
SITING RESTRICTIONS

SITING RESTRICTIONS FOR YARD WASTE COMPOSTING OPERATIONS

Yeadon Borough's compost facility located at the terminus of West Cobb Creek Road, Yeadon Borough, Delaware County, Pennsylvania (see attached "Site Map"), will not store, compost or cure leaf and yard waste in the following areas:

a. In a 100-year flood plain.

The facility is not located within a 100-year flood plain.

b. In or within 300 feet of an exceptional value wetland.

The "National Wetlands Inventory Map" does not identify any exceptional wetland within 300 feet from the compost site boundaries.

c. In or within 100 feet of a wetland other than an exceptional value wetland.

No wetlands exist within 100 feet of the site boundaries.

d. Within 100 feet of a sinkhole or area draining into a sinkhole.

No karst geologic features are located on site (based on review of Delaware County Soil Survey) and there is no drainage into a sinkhole within 100 feet of the compost site boundaries.

e. Within 300 feet measured horizontally from an occupied dwelling unless the owner has provided a written waiver consenting to the facility being closer than 300 feet.

The compost facility boundaries are in excess of 300 feet measured horizontally from any/all occupied dwellings.

f. Within 50 feet of a property line, unless the operator demonstrates that only curing of compost is occurring within that distance.

(See accompanying letter from school district).

g. Within 300 feet of a water source.

No well exists within 300 feet of the site.

h. Within 3.3 feet of a regional groundwater water table.

The compost facility is located on soils, which have a distance greater than 3.3 feet between the surface and the regional groundwater table.

i. Within 100 feet of a perennial stream.

No perennial streams are located within 100 feet of the site.

ATTACHMENT C
TOPOGRAPHIC MAP

ATTACHMENT D
NUISANCE CONTROL PLAN

NUISANCE CONTROL PLAN

All on site operations will be monitored on a regular basis, any situation that is noted which might attract, and harbor or cause breeding of vectors will be addressed as quickly as possible on a case-by-case basis.

Odor is a primary concern for composting operations. Malodors are almost always associated with anaerobic conditions, excessive temperatures, excessive water, etc. Monitoring and quick response to problems recorded will minimize the occurrence of odor causing conditions.

Improved drainage of the compost and site (gravel base on working surfaces and pads) will help eliminate the potential of standing water. Additionally, the windrows will run parallel to the slope allowing for proper drainage. Any ponding of water found on site will be subjected to corrective actions. These actions may include; adding fill material, re-grading or modifying drainage patterns.

Through the elimination of standing water, the regular turning of windrows and heat generated by the piles breeding of vermin and insects is inhibited. Regular monitoring of the

compost and mulch windrows will also be accomplished.

Noise from operating equipment should not present a problem given the location of the site and the limited work effort required to manage the relatively small volume of leaves.

Dust generated on access roads or by processing machinery will be suppressed with water spraying of roads (if required).

The Borough will operate the compost site in a professional manner. The safety and well being of its employees, the public and the environment are of the utmost concern. The operations will be monitored daily and any safety hazards or public complaints will be dealt with expeditiously.

Any litter generated by site activities or deliveries will be policed by Borough personnel.

SECTION 2

YEADON BOROUGH

CONTINGENCY PLAN FOR

EMERGENCY PROCEDURE

A. DESCRIPTION OF FACILITY/OPERATION

A. 1 General Description of Activity

Yeadon Borough plans to develop a leaf and yard waste compost facility. The operation will be located on a 1.25-acre parcel in Yeadon Borough, Delaware County. The proposed project will (not) require additional zoning approval from the Borough. The project is designed to process leaf and yard waste collected in Yeadon Borough. The Borough will also establish a product distribution [pick-up] area adjacent to its garage [SEE SITE PLAN].

COMPOST SITE

The leaf and yard waste compost operation will occupy a 1.25-acre site. Materials that are to be accepted for composting are leaf waste, bush trimmings, and related yard debris as per Department "Guidelines for Yard Waste Composting Facilities". Wood chips generated from tree trimmings will process at the product distribution area.

The acceptable materials will be composted aerobically using open-air windrows and mechanized equipment to promote, accelerate and enhance decomposition.

All loads of incoming material will be inspected prior to and during off loading to ensure the quality of incoming material. Off specification material will be culled by Borough personnel and properly disposed of.

Any plastic bags will be immediately opened and their contents inspected. Bags will be properly disposed of. The majority of material delivered to the site will be bulk collected by leaf vacuums.

Leaf waste will be formed into windrows or incorporated into existing windrows using a front-end loader. Windrows will be monitored to ensure the physical requirements of the compost are met temperature is the prime indicator; using long stemmed thermometers temperature will be monitored to maintain the thermophilic (active) 113° - 140°F range. If the windrow falls below or rises above the range, it will be turned by use of a front-end loader. Once the windrow reaches a stabilized state (temperature does not increase when windrow is turned) the product can be; used at municipal parks and buildings or distributed to the public.

A2. Description of Existing Emergency Response Plan

A3. Material and Waste Inventory

Due to the simplicity of the composting, ancillary materials and waste materials are minimal. There will be no storage of materials or chemicals at the compost site, only the fuel, motor oil and fluids contained by on-site machinery.

A4. Pollution Incident History

This is a new facility and has no previous history of any pollution incidents.

A5. Implementation Schedule

Following registration/permitting of the composting site, operations personnel will be trained to follow procedures set forth in this PPC Plan.

B. DESCRIPTION OF HOW PLAN IS IMPLEMENTED BY ORGANIZATION

B1. Organizational Structure for Implementation of the PPC Plan

In the event that an emergency situation occurs at the operation, it will be the responsibility of any on-site staff to immediately notify Mr. Dan Wright, Public Works Superintendent, who will be the designate emergency coordinator. It is the responsibility of the emergency coordinator to implement all measures of the PPC Plan, as required. It is the responsibility of the emergency coordinator to both coordinate emergency activities and to assure submission of the written Incident Report to the DEP as required under this Plan.

The PPC Committee will consist of Mr. WRIGHT, as the emergency coordinator and Mr. Christopher Van De Veldt, Borough Manager, as secondary coordinator. It will be the duty and responsibility of the PPC Committee to meet prior to start-up and annually thereafter (at a minimum) to: review and identify materials and wastes handled; identify potential hazards (if any); establish and review material and waste handling/storage procedures, accident reporting procedures; and visual inspection programs. The Committee will also review past incidents and the countermeasures utilized to assess effectiveness. In addition, the PPC Committee will be responsible for coordinating establishment of training and educational programs for personnel;

and, periodic review/evaluation and improvement of the Plan. The Committee will review any future regulations, new equipment or process changes and incorporate any needed changes into the PPC Plan. If the PPC Plan is updated, copies will be given to the Department and made available to emergency response agencies/ contacts.

B2. List of Emergency Coordinators

Primary; Dan Wright

Home Telephone; 610-833-2181

Business Address; Borough of Yeadon
P.O.Box 19050
Yeadon, PA 19050

Business Telephone; 215-623-3636

Secondary; Christopher Van De Velde

Home Telephone; 215-508-0688

Business Address; Borough of Yeadon
P.O.Box5187
Yeadon, PA 19050

Business Telephone; 610-4284-1606

B3. Duties and Responsibilities of the Emergency Coordinator

Among other duties and responsibilities of the emergency coordinator will be routine inspection of the site to ensure that

neat and orderly operations is maintained and to assure that walkways, areas between windrows, storage areas, operational areas, maneuvering areas and roadways remain accessible and free of nonessential items which might otherwise clutter and hinder operational safety and efficiency. During an actual or imminent emergency, the emergency coordinator will ensure adequate space is provided for unobstructed movement of emergency personnel and equipment to any operating area of the operation. The emergency coordinator will also ensure that all agencies listed in Section E of this Plan are offered a copy of the PPC Plan.

Although most of the materials processed and produced at the operations are not considered of a nature, which would pose environmental consequences, even if mismanaged, it is recognized that it is the responsibility of the emergency coordinator to minimize any deleterious effect to personnel and the environment caused by an incident at the site. True emergency scenarios can realistically be limited to those involving fire. During an emergency, operations at the site would be discontinued. All delivery/shipment of materials would be halted. Access would remain open to allow for movement of emergency response personnel and equipment. A fire company will be used as a first response to a fire at the compost operation.

Whenever there is an imminent or actual emergency situation, the emergency coordinator must immediately:

1. Notify all on-site personnel;
2. Identify the character, exact source, amount and real extent of the fire; and
3. Concurrently assess the actual and potential hazards to the public health and safety, public welfare and the environment that have resulted or may result from the fire. This assessment will consider both direct and indirect effects of the fire.

If the emergency coordinator must assess possible hazards to human health or the environment that may result from a fire the assessment will consider both direct and indirect effects.

If the emergency coordinator determines that the installation has had a fire, which would threaten human health or the environment, he will immediately notify the applicable local authorities, indicating if evacuation of local area is advisable. Additionally, he will immediately notify the Department by telephone at 610-832-6212 and the national Response Center at

800-424-8802 and report the following:

1. Name of the person reporting the incident;
2. Name, address and permit number of the operation;
3. Telephone number where the person reporting the incident can be reached;
4. Date, time and location of the incident;
5. A brief description of the incident, nature of the materials or wastes involved, extent of any injuries and possible hazards to human health or the environment;
6. The estimated quantity of the materials or wastes involved;
7. The extent of contamination of land, water, or air, if known;
8. Existence of dangers to public health and safety, public welfare, and the environment;
9. Nature of injuries; and
10. Parts of the Contingency Plan being implemented to alleviate the emergency.

During an emergency, the emergency coordinator will take all reasonable measures necessary to ensure that fire does not occur, reoccur or spread. These measures shall include, where applicable: stopping all operations and isolating the problem area.

If a site stops operation in response to a fire the emergency coordinator will ensure that adequate monitoring is conducted for excessive temperatures wherever appropriate.

After an emergency, the emergency coordinator shall:

- a. Clean up the affected area;
- b. Treat, store, or dispose of recovered materials, in a manner approved by the Department (testing of the affected area may be necessary); and

- c. Prevent processing or storage of compostables in the area affected by the emergency until the area has been cleaned up and the Department has inspected and approved the cleanup.

The emergency coordinator will ensure that no leaf/yard waste is processed or stored in the affected area, until cleanup procedures are completed and that all emergency equipment listed in the PPC Plan is cleaned and fit for its intended use before operations are resumed. The coordinator will review and document the effectiveness of the emergency planning and control measures developed for subsequent evaluation.

Within 15 days after the incident, the emergency coordinator will submit a written report on the incident to the Department. The report will include the following:

1. Name, address, and telephone number of the individual filing the report;
2. Name, address, and telephone number of the operation;
3. Date, time, and location of the incident;
4. A brief description of the circumstances causing the incident;
5. Description and estimated quantity, by weight or volume, of materials or wastes involved;
6. An assessment of any contamination of land, water or air that has occurred due to the incident;
7. Estimated quantity and disposition of recovered materials or wastes that resulted from the incident; and
8. A description of what actions will be taken to prevent a similar occurrence in the future.

B4. Chain of Command

NOTE- Same as listed in Section B2

C. SPILL LEAK PREVENTION AND RESPONSE

C1. Pre Release Planning

The Yeadon Borough compost site has been designed to minimize the potential for risk to the environment, the public and operational personnel. All operational personnel will be properly trained in their duties and responsibilities prior to functioning without direct supervision.

The compost operation requires a very limited number of materials, which have potential to cause significant harm to personnel or the environment if spilled. Only fuel (diesel), motor oil and other fluids contained in operating machinery will be on site.

Leaf and yard waste accepted at the site is considered solids and moisture in any load will be minimal. Clean up will consist of using a front end loader to collect the majority of solids, shovels and buckets will be used to collect the remnants and any minimal amounts of moisture will be collected with absorbent material (readily available at the nearby Borough Garage).

C2. Material Compatibility

The leaf/yard waste process does not involve the use of materials, which are either corrosive or reactive.

C3. Inspection and Monitoring Program

All composting windrows will be monitored on a regular basis (weekly for first month, then monthly thereafter). The inspection will include checking temperature at 50-foot linear intervals in the center the windrows. Windrows will be turned when temperatures exceed 140 degrees Fahrenheit. Water content will also be checked and adjusted as necessary to maintain moisture content water around 50%. Windrows will also be inspected for any non-compostables, which will be manually removed and disposed of. The time, date, results of, and name of person conducting these inspections will be recorded in a written documentation.

Emergency equipment will consist of a minimum of a 5-pound A/B/C fire extinguisher located on all mobile processing equipment at the site. Routine inspection/maintenance of all fire extinguishers will be conducted annually.

C4. Preventative Maintenance

Preventative maintenance will be conducted on all operating

equipment, both as presented through the manufacturers' recommendations and as revealed to be necessary through the continuing, routine inspection program. Repairs will be instituted as soon as operationally practical when a component failure or impending failure is detected. Parts and supplies, which are required for routine preventive maintenance, will be kept on site. All preventive maintenance will be recorded and filed for each individual piece of operating equipment.

C5. Housekeeping Program

A conscious effort will be continually made to assure walkways, pathways, operational areas, maneuvering areas and roadways remain accessible and free of nonessential items which might otherwise clutter and hinder operational safety and efficiency. Employees will gather and properly dispose of any litter found on the site. The composting site will be monitored for proper drainage; if any ponding is evident corrective measures will be taken (i.e. regarding or adding fill material). Any small spillage of the noted nominal amounts of diesel fuel, motor oil, etc., will be immediately absorbed, placed in buckets and properly disposed of. All mechanical equipment at the operations will receive a regular wash down. Any spillage of material will be dealt with in accordance with measures as prescribed within this Plan.

C6. Security

Security for the composting site will be effectively provided through a traffic restricting gate and chain link fencing of the site.

A common entrance and exit gate to the site will be secured and locked whenever the facility is vacant. Signs will be on the entrance gate and surrounding the site providing trespass notice to all unauthorized personnel. Any one visiting the site must first stop at the Borough Office, located a short distance from the site, and receive authorized permission to enter the site.

C7. External Factors

A power outage will have little effect on operations mechanical equipment will be operating off of diesel fuel.

The site is located above the 100-year flood plain; therefore, flooding of either operation is not anticipated.

Snowstorms should have minimal effect since the windrows will not

require turning nearly as often as in other seasons. Normal plowing of snow, to maintain site access, will be conducted.

C8. Employee Training Program

Employees will be trained by the site operator and emergency coordinator to understand their particular responsibilities with respect to preventive maintenance and safety. Also all employees will know the location of emergency equipment (telephones, fire extinguishers, etc.) and emergency procedures. Ongoing training will include periodic safety/emergency response meetings. Such meetings will continue on an annual basis, at a minimum. Following start-up of the operations, all new operations personnel will receive initial training on site by the established operations staff. The primary emergency coordinator will annually review state and federal occupational safety laws, and the Borough operations, safety and maintenance procedures to ensure requirements are being met.

D. COUNTERMEASURES

D1. Countermeasures to be undertaken by the operations

D2. Countermeasures to be undertaken by Contractors

Note: Section D1 and D2 were determined not required due to the nature of the operation.

D3. Internal and External Communications or Alarm Systems

Due to the open-air nature of the operations, an internal communications system is not considered practical or necessary. External communications for summoning fire, police or medical assistance will consist of cellular telephones and radios carried by Borough personnel.

D4. Evacuation Plan for Installation Personnel

Due to the nature of the operation, site evacuation is extremely unlikely. However, should such a situation arise, it will be the responsibility of the on-site emergency coordinator to advise all unnecessary personnel to leave the site. An elaborate alarm system is considered unwarranted. Evacuation of the area will proceed via the site access roadway to West Cobb Road.

D5. Emergency Equipment

In an attempt to maintain a ready posture for an unexpected emergency situation which might occur at the site, the following emergency equipment will be maintained on site, readily available and operational at all times:

Description (Location)	Intended Use	Capabilities
Portable Fire Extinguishers (1)	Small Fires	3#Type A/B/C
Portable Fire Extinguishers (2)	Small fires	5# Type A/B/C
Absorbent Material	Spills	50#
First Aid Kit (1)	Cuts/Burns	
Eye Wash (1)	Eye irritants	
Location Index: (1) Carried on equipment (2) Borough Garage		

E. EMERGENCY SPILL CONTROL NETWORK

E1. Arrangements with Local Emergency Response Agencies and hospitals

Prior to initiation of operations at the site, a Yeadon Borough representative will contact the local police department, fire department, and hospital. The contacted agency will be advised of the forthcoming operations, given a description of the operations, to include identification of materials managed and identification of possible types of injury to be encountered. Additionally, the contacted agencies will be offered a follow-up meeting and/or site visit to better familiarize them with the site and process and will be offered a copy of the PPC Plan. Due to the nature of the operations, special provisions beyond those noted herein are not felt to be necessary.

E2. List of Agencies to be notified

PA Dept. of Environmental Resources	610/832-6212
National Response Center	800/424-7362
PA Emergency Management Agency	570/622-3729
Control Center	911 or 610/565-6500
-Police Department	
-Fire Department	
Hospital	911 or 610/237-4701