

**Development Of Leaf And  
Yard Waste Composting  
Facility Kennett Township,  
Chester County**

**December, 2002**

**Prepared By**

**Alternative Resources, Inc.**

# **FINAL REPORT**

## **Development/Permitting Of Leaf And Yard Waste Composting Facility Kennett Township**

### **1.0 Overview**

Kennett Township requested and received a Technical Assistance Grant 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.

The proposed facility will serve residents of Kennett Township.

Kennett Township haulers and residents will drop-off their leaf and yard waste.

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

### **2.0 Facility Sizing**

Based on an evaluation of the Townships 4 acre property only a one half-acre site is available to process the leaf and yard waste generated by the municipality.

Kennett has a population of approximately 6,400 residents. Given a (generally accepted) generation rate of 200 pounds per capita per year of yard waste times a population of 6,400 a total of 1,080,000 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 2,000 cubic yards of leaf and yard waste will be generated by the municipalities. Capture rates of leaf and yard waste (i.e.: material that is collected curbside or dropped off at the facility) will be significantly lower than the estimated 2,560 cubic yards. The Township was aware that the selected one half acre site may not meet the total needs for composting purposes but will accommodate the majority of this material. 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 Kennett site will provide for approximately 1,500 cubic yards of leaf and yard waste.

### **3.0 Site Evaluation**

ARI conducted an evaluation of a 4-acre property owned by the Township. 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:

#### **3.1 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.

### **3.2 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.

### **3.3 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.

### **3.4 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.

### **3.5 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*).

### **3.6 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.

### **3.7 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).

### **3.8 PADEP Siting 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.

#### **4.0 Site Recommendation**

ARI evaluated a 4-acre site on which the Kennett Township Maintenance Building and an open storage facility are located. The property has been previously excavated and filled and is fringed by trees and natural vegetation.

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

- Flat area graded to a 2-3 percent slope
- Exiting hard surface road for access to site
- Site is secured by a gate fencing and natural barriers, only one section (ten foot) of fencing is required
- Remote, no adjacent residential development or sensitive

receptors

- Central location for use by Township
- Area is well drained
- Existing on site, well for water
- Site preparation would have minimal impact on habitat a few trees and brush need to be removed.
- Minimal site development cost (do to existing conditions)

## **5.0 Registration/Permitting of Compost Facility**

ARI met with PADEP regional personnel and conducted a site walk over and discuss site issues. ARI developed the design for the facility, completed all forms and narratives required under PADEP Guidelines and Regulations (see Attachment A). ARI submitted the compost facility application in December of 2002 to PADEP Regional Office. The application is pending approval.

## **6.0 Equipment Specification**

ARI provided the Township assistance in specifying processing equipment for the facility.

## **7.0 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.

## **8.0 Project Development/Costs**

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





KENNETT TOWNSHIP

APPLICATION FOR OPERATION OF  
YARD WASTE COMPOST FACILITY

UNDER 25 PA CODE SECTION 271.103(h)  
PERMIT BY RULE

PREPARED BY

ALTERNATIVE RESOURCES, INC.  
CONSULTANTS IN ENVIRONMENTAL RESOURCE  
MANAGEMENT  
706 MONROE STREET  
STROUDSBURG, PENNSYLVANIA 18360

## TABLE OF CONTENT

Yard Waste Composting Facility Application .....	Section 1
Appendices	
Site Layout (Base Map) .....	Attachment A
Siting Restrictions .....	Attachment B
Topographic Map .....	Attachment C
Nuisance Control Plan .....	Attachment D
Contingency Plan For Emergency Procedures .....	Section 2

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  
Kennett Township (610) 388-1300  
1001 E. Baltimore Pike, P.O. Box 230  
Kennett Square, Pennsylvania 19348

2. Facility: Kennett Township Contact Telephone #  
Contact: Mr. Thomas Nale Phone # (610) 388-1300  
Owner: Kennett Township  
Street Address: 557 Bayard Road  
Kennett Square

State Pennsylvania Zip Code 19348  
City-Borough-Township of Kennett  
County Chester

Sponsoring Municipality Kennett Township

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 Base Map for Deed Numbers & Survey.

3. Method: Windrow (open air)  
Total Acres: One Half Acre  
Maximum quantity of yard waste and composted materials to be on the site at any one time: 1,500 cubic yards  
Yard waste in cubic yards: 1,500 cubic yards  
Finished compost in cubic yards: 900 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 formation.**  
gate location  
surface water controls, erosion and sedimentation

controls

processing area including location, orientation, and  
size of compost piles or windrows curing or storage  
areas - **will vary depending on space availability.**

north arrow

scale of drawing

## 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.**
  - Kennett Township will provide a drop off leaf collection program for residents at the site.
  - Leaf waste collected from fall leaf collection program.
  - Yard waste generated from Kennett Township projects; i.e. park maintenance projects, storm debris from trees, etc.
  - Yard waste collected by the municipalities during spring clean-up days.
  - Yard waste generated and dropped by residents of the municipalities.

- **Describe how the yard waste will be collected and received at the facility?**

Kennett Township leaf and yard waste will be delivered to the site by local collectors, residents and local landscapers. Yard waste collected by the Township 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 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 Kennett Township will be inspected during off loading to ensure the quality of incoming material. Off specification material will be culled by Township personnel, placed in containers and properly disposed of.

Any plastic bags delivered will be opened and unacceptable material (if any) will be removed, placed in a container for proper disposal; bags will be removed by the collector resident delivering the material or Township personnel and place in an on-site container for proper disposal.

- **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 municipality 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 200' feet in length

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

Supplementary water will be provided by an on-site well or from the Kennett Fire Department.

- **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 temperatures. Compost will be turned to

keep 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 for final curing.

- **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.**

The compost will be used for parks, around municipal buildings. Compost may also be made available to residents if the volume is sufficient (in such a case, the municipality would place an ad in the 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. Southeastern Chester County Refuse Authority Landfill is the disposal site used by Township's waste hauler BFI.

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

A phone is located at the maintenance building (located adjacent to the compost site) will be used in case of an



emergency. Both the police and fire departments will also be briefed as to the compost site, layout and standard procedures.

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

The municipality will discuss the program at public meetings and publish a display advertisement approximately two (2) times per leaf collection season, (in a newspaper of general circulation), if warranted. The municipality may 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. Notices will be posted at the Municipal Building.

ATTACHMENT A  
SITE LAYOUT  
(BASE MAP)

ATTACHMENT B  
SITING RESTRICTIONS

## **SITING RESTRICTIONS FOR YARD WASTE COMPOSTING OPERATIONS**

Kennett Township's compost facility located adjacent to the Township Maintenance Building (see attached "Topographic 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 (see Attachment B).

**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. No facultative or obligate plant species were noted during several site walkovers.

**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 only a small intermittent stream/drainage swale.

**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 Chester County Soil Survey) and there is no drainage into a sinkhole within 100 feet of the compost site boundaries. The area has previously been excavated and filled for placement of Township facilities.

**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 dwelling.

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

The compost facility is located closer than 50 feet of a property line but has secured a waiver from the owner of the contiguous property. Do to the small size of the site and existing facilities, it was impossible to maintain a 50 foot butter on the sites southern boundary. The site is bounded by Township property on its northeastern and western boundaries. (see accompanying letter).

**g. Within 300 feet of a water source.**

The site is approximately 200' from an on-site well that provides water for the maintenance building, this situation was discussed with PADEP during a site visitation in August 2002. Again, do to the small size of the site, this situation could not be avoided, as discussed with the Department the placement of this small facility will not present a threat to the water quality.

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

The compost facility is 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 daily basis. Any situation that is noted which might attract, 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 rural nature of the site and the limited work effort 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 Township will operate the compost site in a professional manner. The safety and well being of its employees, the public and 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 Township personnel.

SECTION 2  
CONTINGENCY PLAN FOR  
EMERGENCY PROCEDURES

## **A. DESCRIPTION OF FACILITY/OPERATION**

### **A. 1 General Description of Activity**

Kennett Township plans to develop a leaf and yard waste compost facility. The operation will occupy one half acre of a four acre parcel in Kennett Township, Chester County. The proposed project will not require additional zoning approval from the Township. The project is designed to process leaf and yard waste collected in Kennett Township.

### **COMPOST SITE**

The leaf and yard waste compost operation will occupy approximately one half acre site within a four acre parcel. Materials that are to be accepted for composting are leaves, bush trimmings and related yard debris as per Department "Guidelines for Yard Waste Composting Facilities".

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 Township personnel and properly disposed of.

Any plastic bags containing acceptable materials will be immediately opened and their contents inspected. The bags will be removed by the resident or hauler delivering the material or on-site personnel. Bags or other non-acceptable items will be placed in a container for proper disposal.

Leaves 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 process 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 properties, 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. Those having potential for causing environmental degradation or endangerment of public health and safety

consist of:

<b>Material (Location)</b>	<b>Amount Normally Stored</b>	<b>Storage Container</b>
Diesel (1)	1,000 gallons	Concrete vault
Motor Oil (1)	55 gallon	55 gallon drum
Hydraulic Fluid (1)	55 gallon drum	55 gallon drum
Oxygen (1)	30 lb.	30 lb. tank
Acetylene (1)	20 lb.	20 lb. tank
Gasoline (1)	500 gallon	Concrete vault

Location Index:

(1) Highway Department Maintenance Building

Notes:

1. See attached locator map identifying storage area\*

#### **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 the Emergency Management Deputy Coordinator, who will be a designated second level (Secondary) emergency coordinator. It is the responsibility of the Emergency Management Deputy to immediately notify the first level (Primary) Emergency Management Coordinator of the situation and to implement all measures of the PPC Plan, as required, during the absence of the Primary Emergency Management Coordinator. It is the responsibility of the Emergency Management Coordinator and Deputy 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 James Knightly, as the primary Emergency Management Coordinator and David Herbert as (secondary) Emergency Management Deputy 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:** James Knightly

Home Address: 191 Victoria Court

Home Telephone: Kennett Square, PA 19348

Home Telephone: (610) 925-3392

**Secondary:** David Herbert

Home Address: 640 Bayard Road



Kennett Square, PA 19348

Home Telephone: (610) 444-3948

### **B3. Duties and Responsibilities of the Emergency Management Coordinator**

Among other duties and responsibilities of the Emergency Management Coordinator will do 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 Management Coordinator will ensure adequate space is provided for unobstructed movement of emergency personnel and equipment to any operating area of the operation. The Emergency Management 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 severe environmental consequences, even if mismanaged, it is recognized that it is the responsibility of the Emergency Management 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. The 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 Management Coordinator must immediately:

1. Notify all on-site personnel;
2. Identify the character, exact source, amount and areal 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.

The Emergency Management 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 Management 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 610/444-3915 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 Management Coordinator will take all reasonable measures necessary to ensure that fire does not occur, reoccur or spread to other materials at the site. 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 Management Coordinator/Deputy will ensure that adequate monitoring is conducted for excessive temperatures wherever appropriate.

After an emergency, the Emergency Management 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 combustibles 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 Management 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 Management 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**

**Primary:** James Knightly

Home Address: 191 Victoria Court

Home Telephone: Kennett Square, PA 19348

Home Telephone: (610) 925-3392

**Secondary:** David Herbert

Home Address: 640 Bayard Road  
Kennett Square, PA 19348

Home Telephone: (610) 444-3948

## **C. SPILL LEAK PREVENTION AND RESPONSE**

### **C1. Pre Release Planning**

The Kennett Township compost site has been designed to minimize the potential for risk to the environment, the public and operational personnel. Absorbent material will be available at the Township maintenance building where small amounts of liquid materials which might cause environmental concern are stored. 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. These items are listed in the Material and Waste Inventory and are stored at the maintenance building or in the case of diesel oil and gasoline in secure concrete vaults. Absorbent material will be immediately available in the area where motor oil and hydraulic fluid materials are stored.

Leaf and yard waste which will be 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.

Note: See attached locator map identifying storage area (maintenance building).

## **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 a 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



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. In addition, six (6) 5-pound and eight (8) 3-pound A/B/C fire extinguishers are located in the maintenance building. Routine inspection/maintenance of all fire extinguishers will be conducted annually.

Fifty pounds of absorbent material will be immediately available in the area where diesel, motor oil or other liquid chemicals are stored, along with a push broom, 5-gallon empty buckets, and a square mouth shovel, should a spill occur while dispensing.

#### **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. regrading or adding fill material). Any small spillage of the noted nominal amounts of diesel oil, motor oil, etc., will be immediately absorbed, placed in buckets and properly disposed of. The area where these materials are stored will be maintained in an orderly manner to minimize any possibility of even minimal spills and to ensure proper storage/ accessibility of the spill control equipment (i.e., absorbent, buckets, shovels). 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. (Note locator map).

The common entrance and exit gate located at the entrance 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 Township Maintenance Building, located at the entrance of the property, 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.

Snow storms 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 Management Coordinator/Deputy 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 Township operational, 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 Maintenance Building telephone.

##### **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 operator 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.

#### **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
Absorbent Material (1)	Absorb spills	50#
Portable Fire Extinguishers (1)	Small fires	5# Type A/B/C 7 Extinguishers
Portable Fire Extinguishers (2)	Small fires	3# Type A/B/C 8 Extinguishers
First Aid Kit (2)	Cuts/Burns	
Eye Wash (2)	Eye irritants	
Location Index: (1) Maintenance Building		

**E. EMERGENCY SPILL CONTROL NETWORK**

**E1. Arrangements with Local Emergency Response Agencies and hospitals**

Prior to initiation of operations at the site, the local police department, fire department, and hospital will be contacted by a Kennett Township Emergency Coordinator. 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
Chester County Fire Board	610/436-4700
PA State Police	911 or 610/268-2022
Kennett Square Police	610/444-0501
Longwood Fire Company	610/388-6880
Kennett Fire Company No. 1	610/444-3915

Chester County Hospital

610/431-5000

Jennersville Regional Hospital

610/869-1000