Yard Waste Composting Facility

Site Evaluation/Permitting

West Brandywine Township,

Chester County

Environmental Resources Associates

706 MONROE STREET
STROUDSBURG, PENNSYLVANIA 18360

CONSULTANTS IN ENVIRONMENTAL RESOURCE MANAGEMENT

ERA

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Appendices

1.0 Executive Summary

Vollmecke Orchards is a Community Supported Agriculture (CSA) farm**.** CSA is a popular agricultural trend that has grown significantly in recent years. It seeks to re-connect consumers with the actual sources of their food by forging a relationship with local farmers. It is based on eating nutritious, naturally grown food in season, sharing the risks and rewards with the farmer, thereby preserving productive, open farmland.

Just before the beginning of each growing season, consumers purchase a share in the harvest, thus becoming members. They come to the farm (or other designated location) every week to pick up their shares of fresh fruits and vegetables.

Vollmecke Orchards literally grows food for its community of members who are free to visit any time and see where and how their wholesome food is grown. By sharing in the many benefits and risks of being a part of the farm, the members are vitally involved in preserving valuable pieces of open land in active agriculture.

Vollmecke Orchards has conducted on-farm composting (composted agricultural wastes generated on the farm) for several years. The compost is applied to the farm's fields and orchards to enhance the soils. Vollmecke Orchards plans to develop a leaf and yard waste compost facility. The compost facility is to be located on 4.69-acres of its 35.15-acre farm, in West Brandywine Township, Chester County. The project is designed to process leaf and yard waste collected in West Brandywine Township.

West Brandywine Township (Township) and Vollmecke Orchards have entered into an agreement/partnership that is of mutual benefit to both parties. West Brandywine is providing technical assistance to site and design and permit the compost facility and also processing equipment. Vollmecke Orchards will provide the compost site, its composting expertise, operate the facility and process the leaf and yard waste collected by the Township. The Township benefits by avoiding the costs associated with development and operation of a compost facility and the convenience of having a compost facility in close proximity that will accept and process its leaf and yard waste free of cost. Vollmecke Orchards benefits by use of the equipment provided by the Township, an expanded compost operation and generates a valuable product to enrich its soils and potentially to market. Vollmecke Orchards may also provide composting services to other neighboring communities.

The leaf and yard waste compost facility will occupy approximately 4.69-acres of Vollmecke Orchard's 35.15-acre farm. Materials that are to be accepted for processing/composting will be leaves and yard waste. Vollmecke Orchards will continue composting green waste material from their vegetable and fruit growing operations. Consideration is being given to further expand the compost operation to accept other organics generated in the area.

With the capacity to process thousands (13,800-cubic yards) rather than hundreds of cubic yards of leaf and yard waste and to produce a larger volume of quality compost efficiently, Vollmecke Orchards will have sufficient product not only to meet on-farm needs but to potentially market compost to local landscapers, gardeners and turf industries. The expanded composting capabilities of Vollmecke Orchards will provide more than sufficient capacity for the Township's current and future needs.

Vollmecke Orchards is expanding its CSA program each year and expects this growth to continue. In order to do so, it will need a reliable and steadily increasing source of compost to improve soil quality and fertility. Vollmecke Orchards ability to produce compost efficiently will add greatly to the farm's sustainability in terms of both recycling and financial health.

Environmental Resources Associates (ERA) performed site inspections, a desktop and detailed evaluation of available data for the Township's proposed compost site. The candidate site was evaluated based on the environmental, social and economic considerations and the limitations and requirements specified in the PADEP "Guidelines for Yard Waste Composting Facilities" (Guidelines).

ERA developed the conceptual design for the compost facility, completed all forms and narratives required under PADEP Guidelines and Regulations. ERA met with Township representatives and PADEP, and reviewed the compost facility permit application prior to submission. ERA submitted the compost facility permit application to PADEP Regional Office on October 26, 2006.

2.0 Background

West Brandywine Township is mandated by Act 101 to recycle leaf waste. Vollmecke Orchards plans to develop and operate a leaf and yard waste compost facility. The compost facility is to be located on 4.69-acres of its 35.15-acre farm in West Brandywine Township, Chester County. The project is designed to process leaf and yard waste collected in West Brandywine Township. The Township encompasses a 13.2-square-mile area. The Township has an estimated population of approximately 7,153 persons.

West Brandywine Township (Township) and Vollmecke Orchards have entered into an agreement/partnership that is of mutual benefit to both parties. West Brandywine is providing technical assistance to site and design the compost facility and processing equipment. Vollmecke Orchards will provide the compost site, its composting expertise, operate the facility and process the leaf and yard waste collected by the Township. The Township benefits by avoiding the costs associated with development and operation of a compost facility and the convenience of having a compost facility in close proximity that will accept and process its leaf and yard waste free of cost. Vollmecke Orchards benefits by use of the equipment provided by the Township, an expanded compost operation and generates a valuable product to enrich its soils and potentially to market.

Vollmecke Orchards may also provide composting services to other neighboring communities.

3.0 Overview

Environmental Resources Associates (ERA) was selected to provide consulting assistance to the Township.

Site inspections and evaluation of data was conducted on the proposed compost site at Vollmecke Orchards. The site was evaluated based on environmental, social and economic considerations and the limitations and requirements specified in the PADEP "Guidelines for Yard Waste Composting Facilities" (Guidelines), as noted below. The evaluation indicated that the candidate site met the established criteria for developing a leaf and yard waste compost facility.

PADEP Guidelines 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 plain.

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.

ERA developed the conceptual design for the facility, completed all forms and narratives required under PADEP Guidelines and Regulations. ERA submitted the compost facility permit application to PADEP Regional Office October 26, 2006. The application is under review by the PADEP.

Vollmecke Orchards

APPLICATION FOR OPERATION OF A YARD WASTE

COMPOST FACILITY

UNDER 25 PA CODE SECTION 271.103(h)

PREPARED BY

ENVIRONMENTAL RESOURCES ASSOCIATES
CONSULTANTS IN ENVIRONMENTAL RESOURCE MANAGEMENT
706 MONROE STREET
STROUDSBURG, PENNSYLVANIA 18360

ERA

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Appendix A

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

Vollmecke Orchards (610) –383-4616
155 Cedar Knoll Road
West Brandywine Township, PA 19320

2. Facility: Vollmecke Orchards
Contact: Karen Vollmecke
Contact Telephone Number: (610) –383-4616
Property Owner: Karen Vollmecke

Street Address: 155 Cedar Knoll Road
West Brandywine Township
State: Pennsylvania **Zip Code:** 19320

City-Township: West Brandywine Township
County: Chester

Sponsoring Municipality: West Brandywine Township

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

Provide proof the operator has the legal right to enter the land and perform the approved activities.

3. Method: Windrow (open air)
Total Acres: 4.69 -acres (compost processing)
Maximum quantity of yard waste and composted materials to be on the site at any one time: 13,800 -cubic yards
Yard waste in cubic yards: 13,800-cubic yards
Finished compost in cubic yards: 6,000-cubic yards

4. Prepare and include in this application a general site plan* for the facility, which illustrates the location of the following items: (see Attachment A)

Access roads in relation to the nearest public and private roads,

Wells and property lines

Tipping area

Gate location

Surface water controls, erosion and sedimentation control

Processing area including location, orientation and size of the windrows

Curing and storage area

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.**

  - West Brandywine Township plans to provide a drop-off leaf and yard waste collection program for residents at the compost site or other site.

  - West Brandywine Township will provide leaf and yard waste from its curbside collection program.

  - Yard waste generated from West Brandywine Township; i.e. park maintenance projects, storm debris from trees, etc.

  - Yard waste collected by the municipality during spring clean-up days.

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

  A vacuum truck system will be used by West Brandywine Township to collect bulk leaf waste curbside. The leaf collection trucks will deliver leaves directly to the compost facility.

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

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

  All loads of incoming leaf/yard waste delivered by the Township's collection vehicles and/or any material delivered by residents will be inspected during off-loading to ensure quality control. Any off-specification material identified during an inspection will be culled by facility personnel and either rejected and sent back with hauler or placed in an onsite container. Bags delivered will be opened and the contents inspected. Unacceptable material (if any) will be removed, placed in an on-site container for subsequent disposal by the facilities waste hauler.

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

  Leaf collection trucks delivering materials to the compost site will unload in the approximate location where a windrow is to be formed. Leaf waste delivered (bulk and bagged) will be inspected for contaminants. A tractor with a bucket loader, with a .75 cubic yard bucket will form windrows in semi-circular shapes. A slight indentation will be made at the top of the windrow to allow for rainfall

retention thus reducing the potential need of adding water to maintain optimum conditions for active composting.

Vollmecke Orchards plans to purchase a windrow turner to improve processing efficiency.

Equipment proposed for use at the compost facility includes;

- ✓ One windrow turner.
- ✓ One tractor/loader equipped with a .75-yard bucket.
- ✓ One 500-gallon trailer mounted water tank.

Note: Farm organics are included as a compost feedstock; they will be incorporated into windrows at an appropriate carbon to nitrogen ratios.

- **Describe the windrow size:**

Initial windrow dimensions will be 10' wide x 6' high x varying lengths.

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

A 500-gallon (trailer mounted) water tank will be used to supply supplemental water to the windrows, if required.

- **Indicate the frequency of windrow turning:**

Turning of windrows will occur routinely, twice per month. Based on monitoring results the windrows may be turned more frequently to maintain optimum environmental conditions for the compost process.

- **Indicate the temperature range to be maintained:**

A range of 90 to 140-degrees Fahrenheit will be maintained during active composting. Long stemmed thermometers will be used to monitor temperature.

- **Indicate the method of windrow turning:**

A tractor/loader will be used to form windrows. The tractors bucket will lift the organic material and allow it to cascade back into the windrow several times. This type of windrow formation provides for optimum mixing and loose deposition of material, enhancing porosity and increasing airflow.

Once purchased, a windrow turner will turn windrows following initial formation, further accelerating the composting process.

- **Describe the method for determining turning frequency.**

  Turning frequency will be based on maintaining the proper environment for microbial activity/accelerated decomposition. All windrows will be monitored on a regular basis once a week for the first month, then twice a month (every other week) thereafter. The inspection will include checking temperature at fifty-foot linear intervals. Long stem (four-foot) digital thermometers will be used to monitor windrow temperatures. Windrows will be turned when the temperatures drop below 90 or exceed 140-degrees Fahrenheit.

  The key indicator for establishing turning frequency will be internal windrow temperature. Windrows will be turned to maintain temperatures in the lower active (thermophilic) range (90 to 140-degrees Fahrenheit). The thermophilic temperature range should be reached within two weeks to a month after initial windrow formation. Once the inner core of the windrow exceeds 140-degrees, the windrow will be turned. If the temperature of the windrow drops below 90-degrees, the windrow will likewise be turned to add oxygen and increase microbial activity. Once the temperature drops below 90-degrees and turning the windrow does not result in an increase in temperature, the compost will be moved to a curing area or allowed to cure in place for 30 to 90-days.

  Windrow moisture content will also be monitored. Squeezing a handful of the composting material is a generally accepted method of determining moisture content; if a few drops of water are shed, the moisture level is sufficient. Should appreciably more water be shed, when the material is squeezed, the windrow's moisture content is too high and turning is required to aerate it and prevent anaerobic conditions from establishing.

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

  Describe the composting process: 120 to 180-days (Note Previous Section)

  Describe the curing period for compost: 30 to 90-days (Note Previous Section)

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

  Indicate the total time required for composting operation: 130 tom 300-days (Depending on how aggressively the material is processed.)

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

  Finished compost will be utilized extensively within the owner's farming operation, and sold to homeowners, farm members and landscapers. Bulk sales are initially anticipated with the possibility of bagged sales in the future. Finished compost will be picked up at the site or delivered in a 5-yard trailer. Larger dump

trucks may be utilized if needed.

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

  Any waste or residue collected at the compost site will be placed in an onsite container. Waste containers will be collected by a contracted waste hauler and disposed of at the Lanchester Landfill.

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

  Personnel working at the site will use a cellular phone. Both the police and fire departments will be briefed as to the compost sites layout and standard operating procedures and receive a copy of the facility's Contingency Plan for Emergency Procedures.

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

  West Brandywine Township will develop a public education/outreach campaign. The campaign will include announcements at public meetings, public service announcements, display advertisements in local newspapers and an informational brochure. The brochure will provide program details and encourage participation.

- **Describe the Composting Process.**

  Vollmecke Orchards will use open-air aerated windrow processing for composting leaf and yard waste. Compostables will be formed into parabolic shaped windrows of approximately 6' high X 10' wide X various lengths.

  Incoming loads of materials (leaf and yard waste and potentially grass clippings) will be off-loaded where the windrows are to be formed. Facility personnel will inspect material during off-loading and windrow formation. Materials that are unacceptable, will be removed and properly disposed of. The windrows will be constructed parallel to slope with a tractor loader. The windrows will be arranged allowing a space of at least 8-feet but not more than 10-feet between them. A clearance of 8-feet to 10-feet around the windrows will be maintained for ease of access of equipment.

  Once windrows are initially formed by the tractor/loader, it is planned that a windrow turner will be used to turn and aerate the piles. The tractor/loader will be used to turn and aerate the piles until a windrow turner is acquired. Loads of wet leaves will be turned as soon as practical to prevent anaerobic conditioning from forming.

The windrow turner's rotating flail will not only aerate the pile but it will also chop the leaves into smaller pieces thus increasing the surface area available to microbes and accelerating the composting process. A reduction in pile size will also occur as a result of initial turnings.

Windrows will be constructed in sections, i.e. as leaves are delivered. The individual sections will be monitored to insure active composting is maintained.

Temperature, being the prime indicator of microbial activity, will be monitored at prescribed intervals along the windrow using long stem digital thermometers. The windrow or section of windrow will be turned if the temperature varies from the thermophilic range (90° to 140° F).

The total composting time is dependent on a number of variables primarily temperature, moisture, and oxygen content. The time period for turning the windrows will be adjusted as required, based on monitoring results. Monitoring will be done twice monthly to insure proper moisture and temperature ranges are maintained. Monitoring results will be recorded on Monitoring Log Sheets.

During the composting process windrows will be built in sections. Records will be maintained on each section. Eventually, through turning and mixing the windrow will be homogenized and should uniformly degrade.

A moisture content of approximately 50% will be maintained during composting. The moisture content will be checked periodically using a moisture meter and the "squeeze test". A handful of material from within the windrow will be squeezed; if a few drops of water are generated the windrow can be assumed to contain the proper range of moisture 40% to 60%. Deviance from this range will require turning of the windrow. Turning is done to aerate and dry pile to prevent anaerobic conditions. The windrow will be turned as necessary to assist moisture loss and if available dry material will be added.

If the material is too dry, water will be added gradually during the turning process until the desired range is met.

Composting and curing will be judged complete when pile temperatures decrease to near ambient and remains there for 3 to 4-weeks. Finished compost will be stored in place or combined with other finished windrows until distribution.

Records of incoming organic materials as well as finished products (compost and mulch) will be maintained.

<u>Equipment proposed for use at the compost facility includes;</u>

- ✓ One windrow turner.
- ✓ One tractor/loader equipped with a .75-yard bucket.

✓ One 500-gallon trailer mounted water tank.

Vollmecke Orchards will:

- Prepare post and maintain signage to identify the compost facility and inform the public of its operations, consistent with the requirements of the Guidelines for Yard Waste Composting Facilities.

- Work cooperatively with the Chester County Conservation District in the development and installation of surface water and erosion and sedimentation control measures which may be required (if any). Soils are well drained and conservation practices are in place to address E&S and surface water however, a meeting with the County Conservation District will be held to seek advice and guidance on developing suitable surface water controls (if any) that meet the requirements of 25 PA Code Chapter 102, Erosion Control. An E&S Plan will be developed (if required) and a copy of the County Conservation District approved plan will be submitted to the Department.

Note; Composting of on-site farm organic waste has been done on the farm for several year, no surface water and/or E&S problems have occurred due to existing measures.

ATTACHMENT A

SITE LAYOUT

(BASE MAP)

ATTACHMENT B

SITING RESTRICTIONS

SITING RESTRICTIONS FOR YARD WASTE COMPOSTING OPERATIONS

Vollmecke Orchards compost facility is located at 155 Cedar Knoll Road in West Brandywine Township, Chester County, Pennsylvania (see attached "Base Map"). Vollmecke Orchards compost facility will not store or cure compost or compost 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.

Note: The site has been previously disturbed and is actively being farmed.

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 karsts geologic features are located on the proposed 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. (See Attachment E)

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.

Processing will not occur within 50-feet of any property line.

g. Within 300 feet of a water source.

No well or other water source 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

The facility will be gated and the gate locked when the site is not in operation, as a security measure.

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

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

All windrows will be monitored on a regular basis once a week for the first month, then twice a month (every other week) thereafter. The inspection will include checking temperature at fifty-foot linear intervals. Long stem (four-foot) digital thermometers will be used to monitor windrow temperatures. Windrows will be turned when the temperatures, drop below 90 or exceed 140-degrees Fahrenheit. Monitoring and quick response to any malodor (turning the windrow and/or adding dry organics) will minimize the potential occurrence of any odor causing conditions.

During inspections of the windrows any unacceptable material noted will be manually removed and properly disposed of.

The time, date, results of, and name of person conducting inspections will be recorded in written documentation (inspection/monitoring logs).

Records of incoming organic materials as well as outgoing finished products (compost and mulch) will also be maintained (see Attachment G).

The windrows will run parallel to the slope allowing for proper drainage and prevent ponding. Any ponding of water observed on site will be subjected to immediate corrective actions. These actions may include: adding fill material, re-grading the area or modifying drainage patterns.

Through the elimination of standing water the regular turning of windrows and heat generated by the compost process breeding of vermin and insects is inhibited. Regular monitoring of the compost will also be accomplished.

Noise from operating equipment should not present a problem given the location of the site, the limited work effort required to manage the relatively small volume of organic materials. Existing trees, hedgerows and vegetation will act as a noise and visual barrier.

Dust generated by access roads or by processing machinery will be suppressed by use

of a water trailer (if required).

Vollmecke Orchards will operate the compost site in a professional manner. The safety and wellbeing 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 facility personnel and properly disposed of.

ATTACHMENT E

SOILS MAP

ATTACHMENT F

PROOF OF OWNERSHIP

SECTION 2

CONTINGENCY PLAN FOR

EMERGENCY PROCEDURE

Vollmecke Orchards

COMPOST FACILITY

PREPAREDNESS PREVENTION

AND

CONTINGENCY PLAN

A. DESCRIPTION OF FACILITY/OPERATION

A. 1 General Description of Activity

Vollmecke Orchards plans to develop a leaf and yard waste compost facility. The site is to be located on a 35.15-acre parcel in West Brandywine Township, Chester County. The project will not require additional zoning approval. The project is designed to process leaf and yard waste collected in West Brandywine Township.

The leaf and yard waste compost facility will occupy approximately 4.69-acres of Vollmecke Orchard's 35.15-acre parcel. Materials to be accepted for processing/composting will be leaves, yard waste, and organic waste material from the Vollmecke Orchards vegetable and fruit growing operation and potentially grass clippings as per PADEP "Guidelines for Yard Waste Composting Facilities".

The leaf waste (and potentially grass clippings) will be composted aerobically using open-air windrow technology and mechanized equipment to accelerate and enhance decomposition. Mechanical grinders will process tree trimmings and yard waste into wood chips.

All collection vehicles delivering loads of leaves and yard waste will be inspected prior to and during off-loading to ensure quality control. Any material not meeting specifications will be culled and properly disposed of by facility personnel.

If any residents deliver plastic bags to the site, their contents will immediately be emptied and inspected. The plastic bags will be returned to the resident, as will any unacceptable material.

Leaves (and potentially grass clippings) will be formed into new windrows or incorporated into existing windrows by a front-end loader. Grass clippings (if accepted) will be mixed with leaf waste on a three-to-one ratio (three parts leaf waste to one part of grass clippings). Turning of windrows will be accomplished initially using a tractor/loader equipped with a .75-cubic yard bucket. Vollmecke Orchards has applied for a Composting Infrastructure Development Grant for the purchase of a windrow turner. The windrow turner will be used to turn the windrows.

Windrows will be monitored to ensure the physical requirements of the compost process are met. Temperature is the prime indicator of the composting process. Temperature is monitored, using long stem thermometers, to maintain the thermophilic or active range (optimal temperature range 90 to 140-degrees Fahrenheit). If the internal temperature of a windrow falls below or rises above this thermophilic range, it will be turned. Once a windrow reaches a stabilized state, (temperature does not increase when the windrow is turned) it will be

placed in a curing pile or allowed to cure in place.

The Township collects leaves curbside during the fall of the year and will deliver them to the compost site. Residents will be permitted to deliver leaf and yard waste to the drop-off site on designated days at prescribed times.

Example Sign

2. Description of Existing Emergency Response Plan

Vollmecke Orchards does not currently have an Emergency Response Plan.

A3. Material and Waste Inventory

Due to the simplicity of the composting process, and the thorough inspection of incoming materials, receipt of ancillary and/or unacceptable waste materials will be minimal. There is no fuel or chemicals stored at the compost site. Only the fuel, motor oil and fluids contained in processing machinery will be on the site.

A4. Pollution Incident History

Vollmecke Orchards has no previous history of any pollution incidents.

A5. Implementation Schedule

Operations personnel will be trained to follow procedures set forth in this PPC Plan and best composting practices.

B. DESCRIPTION OF HOW PLAN IS IMPLEMENTED BY ORGANIZATION

B1. Organizational Structure for Implementation of the PPC Plan

In the event that an emergency occurs at the facility site, it will be the responsibility of any on-site staff to immediately notify the facility operator, who will be a designated second level or Secondary Emergency Coordinator (SEC). It is the responsibility of the SEC to immediately notify the first level or Primary Emergency Coordinator (PEC) of the emergency and to implement all measures of the PPC Plan. During the absence of the PEC, it is the responsibility of the (SEC) to both coordinate emergency activities and to assure submission of the written Incident Report to the PADEP as required under this Plan.

The PPC Committee will include, Ms. Karen Vollmecke, (facility owner/ operator) as the PEC and Jeannette Harris Vollmecke as SEC. It will be the duty and responsibility of the PPC Committee to meet annually (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 PPC Committee will also review any past incidents and the counter-measures utilized to assess effectiveness. In addition, the PPC Committee will be responsible for coordinating and establishing training and educational programs for personnel; and, periodic review, evaluation and improvement of the PPC Plan. The Committee will review any new regulations: equipment or process changes and incorporate any needed changes into the PPC Plan. If the PPC Plan is updated, copies will be provided to the DEP and made available to emergency response agencies/contacts.

B2. List of Emergency Coordinators

Primary: Karen Vollmecke

Home Address: 155 Cedar Knoll Road
Coatesville, PA 19320

Home Telephone: (610) 383-4616

Business Address: 155 Cedar Knoll Road
Coatesville, PA 19320

Business Telephone: (610) 383-4616

Secondary: Jeannette Harris Vollmecke

Home Address: 155 Cedar Knoll Road
Coatesville, PA 19320

Home Telephone: (610) 383-4616

Business Address: same

Business Telephone: (610) 383-4616

B3. Duties and Responsibilities of the Primary Emergency Coordinator

Among other duties and responsibilities of the PEC is routine inspection of the site to ensure that neat and orderly operation is maintained and to assure that walkways, areas between windrows, storage areas, operations areas, and roadways remain accessible and free of extraneous items which might otherwise clutter and hinder operational safety and efficiency. During an actual or imminent emergency, the PEC will ensure adequate space is provided for unobstructed movement of emergency personnel and equipment to all portions of the site. The PEC also will ensure that all agencies listed in Section E will be offered a copy of the PPC Plan.

Although the materials processed and produced at the facility will be not considered of a nature that would pose severe environmental consequences, even if mismanaged, it is recognized that it is the responsibility of the PEC 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 500-gallon water trailer will be used as a first response in the event of a fire at the compost operation, pending arrival of the fire company. In an imminent or actual emergency, the PEC must immediately:

1. Notify all on-site personnel,

2. Identify the character, exact source, amount and a real extent of the fire,

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 PEC 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 PEC determines that the facility has a situation, which would threaten human health or the environment, he will immediately notify the applicable local authorities, indicating if evacuation of local areas is advisable. Additionally, he will immediately notify PADEP by telephone at (484) - and the National Response Center at 800-424-8802 and report the following:

1. Name of the person reporting the incident;
2. Name and address 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 be, and the environment;
9. Nature of injuries, if any; and
10. Parts of the PPC Plan being implemented to alleviate the emergency.

During an emergency, the Primary and/or Secondary Emergency Coordinator will take all reasonable measures necessary to ensure that fire does not occur, re-occur or spread. These measures shall include, where applicable: stopping all operations and isolating the problem area.

If the facility ceases operation in response to a fire, the SEC (operator) will ensure that adequate monitoring is conducted for excessive temperatures wherever appropriate.

After an emergency, the SEC shall:

a. Clean up the affected areas,

b, Treat, store, or dispose of recovered materials, in a manner approved by the Department (testing of the affected area may be prevent processing or storage of compost materials in the area affected by the emergency until the area has been cleaned up and the Department has inspected and approved the cleanup.

Within 15 days after the incident, the PEC 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 facility;
3. Date, time, and location of the incident;
4. A brief description of the circumstances causing the incident;
5. A description and estimate of the 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 and
8. Actions that will be taken to prevent a similar future occurrence.

B4. Chain of Command

Primary: Karen Vollmecke

Home Address: 155 Cedar Knoll Road
Coatesville, PA 19320

Home Telephone: (610) 383-4616

Business Address: 155 Cedar Knoll Road
Coatesville, PA 19320

Business Telephone: (610) 383-4616

Secondary: Jeannette Harris Vollmecke

Home Address: 155 Cedar Knoll Road
Coatesville, PA 19320

Home Telephone: (610) 383-4616

Business Address: same

Business Telephone: (610) 383-4616

C. SPILL LEAK PREVENTION AND RESPONSE

C1. Pre Release Planning

The compost facility 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 used in operating machinery will be on site.

Leaves, yard waste that will be accepted at the site, will contain limited amount of moisture and should not present a problem. In the event of a spill or leak of fuel or machinery fluids, clean-up efforts will be initiated immediately. 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.

C2. Material Compatibility

The composting process does not involve the use of materials that are corrosive or reactive.

C3. Inspection and Monitoring Program

All composting windrows will be monitored on a regular basis (once a week for the first month, then once a month thereafter). The inspection will include checking temperature at fifty-foot linear intervals. Long stem (four- foot) digital thermometers will be used to monitor windrow temperatures Windrows will be turned when temperatures, drop below 90 or exceed 140-degrees Fahrenheit.

Water content is also monitored, using moisture meters and adjusted as necessary to maintain a moisture level of approximately 50%. Windrows will be inspected for any unacceptable material will be manually removed and properly disposed of. The time, date, results of, and name of person conducting these inspections will be recorded in written documentation (monitoring logs).

Windrows composed of wood chips (mulch) will be monitored for temperature on a weekly basis. Compost and mulch windrows will be visually inspected daily.

Emergency equipment consists of ten-pound A/B/C fire extinguishers (eight) at the maintenance building, and one five-pound A/B/C extinguisher located on (all) mobile processing equipment. Routine inspection/maintenance of all fire

extinguishers is conducted annually.

C4. Preventative Maintenance

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

C5. Housekeeping Program

A conscious effort will continually be made to assure walkways, pathways, operational areas, maneuvering areas and roadways remain accessible and free of any items which might otherwise clutter and hinder operational safety and efficiency. Site personnel will routinely gather and properly dispose of any litter found on the site. The site will be monitored for proper drainage; if any ponding is evident, corrective measures will be taken. Any spillage, diesel fuel, motor oil, etc., will be immediately absorbed, the absorbent material will be placed in buckets and disposed of properly. All mechanical equipment used at the compost site will regularly be washed 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. There is no access to site by vehicle except by entrance/exit roadway. The entrance and exit gate will be locked whenever the facility is not operating. The site will also be completely fenced with chain link fencing. Signs at the entrance gate and surrounding the site will provide trespass notice to all unauthorized personnel. Anyone visiting the site must do so during operating hours.

C7. External Factors

- A power outage will have little effect on operations, as mechanical equipment will be operating from diesel fuel.

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

- Snowstorms should have minimal effect since the windrows will not require turning nearly as often as in other seasons. Facility personnel will conduct normal plowing of snow, to maintain site access.

C8. Employee Training Program

Employees will be trained by the emergency coordinators to understand their particular responsibilities with respect to preventive maintenance and safety. All employees will be made aware of the location of emergency equipment (telephones, fire extinguishers, etc.) and emergency procedures. On-going training will include periodic safety/emergency response meetings. Such meetings will be held on an annual basis, at a minimum. All new operations personnel will receive initial training by the established operations staff. The Emergency Coordinators will regularly review the operational, safety and maintenance procedures to ensure requirements will be being met.

D. COUNTERMEASURE

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 operation, an internal communications system is not practical or necessary. External communication will be by cell phones.

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 roadways.

D5. Emergency Equipment

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

Description (Location),	Intended Use,	Capabilities
Portable Fire Extinguishers (1), (2)	Small Fires,	5 lb.# and 8# Type A/B/C
First Aid Kit (2)	Cuts/Burns,	
Eye Wash (2)	Eye Irritants	
Location Index: **(1)** Carried on Equipment, **(2)** Barn		

E. EMERGENCY SPILL CONTROL NETWORK

E1. Arrangements with Local Emergency Response Agencies and Hospitals

A Vollmecke Orchards representative will contact the local police department, fire department and hospital. The contacted entity will: be advised of the facility, 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 its operations and offered a copy of the PPC Plan.

Due to the nature of the operations, special provisions beyond those noted herein will be not considered necessary.

Dept. of Environmental Protection	(484)-250-5960
National Response Center	1-800-424-7362
County Control Center	911
PA State Police	911 or (484)-340-3241
Township Fire Co.	911

Hospital

Brandywine Hospital	(610)-383-0617

ATTACHMENT G

MONITORING FORMS AND MATERIALS LOGS

ATTACHMENT H

TROUBLESHOOTING GUIDE