

**Site Evaluation/Permitting  
of a  
Yard Waste Composting Facility  
for  
Nazareth Borough, Northampton County**

Prepared By Alternative Resources, Inc.

## **1.0 Background**

Nazareth Borough (Borough) provides residential curbside collection of leaf and yard waste, it also operates a drop off site for leaf, yard waste and grass clippings. The Borough desires to establish a compost facility on a five-acre property it has recently purchased.

## **2.0 Overview**

The Borough requested Technical Assistance for the siting, design and permitting of a Leaf and Yard Waste Compost Facility. Alternative Resources, Inc. (ARI) has been selected to provide consulting assistance.

Nazareth Borough encompasses a 1.67 square mile area. The Borough has a population of 2,658 persons residing in 2,658 households, according to the 2000 census.

The Borough recently purchased approximately five-acres of property, which is located in Upper Nazareth Township. The property was purchased to expand its existing municipal center, which borders Upper Nazareth Township. The Borough plans to develop a leaf and yard waste compost facility on approximately three-acres of the newly acquired property.

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

## **3.0 Facility Sizing**

Borough records show that it collects approximately 2,100 cubic yards of leaf and yard waste and 1,250 cubic yards of grass clippings is annually. The Borough plans to compost these materials.

The PADEP “Guidelines for Yard Waste Composting Facilities” permit the composting of 3,000 cubic yards of yard waste per acre. The Borough’s planned three-acre site could potentially process/compost approximately 9,000 cubic yards of acceptable organics. The Borough is considering collocating a drop-off recycling facility on the planned compost facility site. Assuming (conservatively) that the recycling drop-off facility occupies one-acre of the compost facility site, the remaining two-acres will be more than sufficient to accommodate the 3,350 cubic yards of material currently collected.

#### **4.0 Site Evaluation**

A preliminary inspection and desktop evaluation of data were conducted on the Borough’s proposed compost site. These efforts indicated that the candidate site could potentially be permitted and developed as a leaf and yard waste compost facility. A subsequent detailed evaluation confirmed the candidate site’s eligibility. 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 required careful consideration when evaluating a potential compost facility site, include:

##### **➤ Location**

Location of a municipal yard waste composting facility is one of the prime considerations in the site selection process. Ideally the sites should be centrally located. A central location minimizes travel distance for leaf collection vehicles and residents. The site should be easily accessible. The most convenient composting site location for many municipalities is in close proximity to the municipal office or maintenance building. Benefits of these locations often include enhanced security and cost savings for

equipment and manpower. Location must, however, be weighed against many other factors.

### ➤ **Site Characteristics**

Slope and Topography - A gentle slope, two to four percent, is preferred to prevent water ponding on site. When water ponds it 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 researched. A site's soils must be well drained to prevent ponding and assist in storm water run-off, 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 of ground-water.

### ➤ **Proximity to Water Supply**

Water is essential to the compost process; a nearby water source is required to maintain proper moisture levels in 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, stream or a tanker truck.

### ➤ **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 possible. Noise from machinery, odor potential and visibility of the operation are perceived as potential nuisances. Additionally, individuals who live in close proximity to a compost site and suffer from immune disorders or respiratory problems may potentially be adversely affected by naturally accruing fungal spores (e.g. *aspergillus fumigatus*).

## ➤ **Impacts**

Timber removal, grubbing of brush and excavation work may be required to prepare a compost site. These activities can adversely impact the existing natural habitat and must be evaluated.

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

ARI developed the windrow layout for the facility, completed all forms and narratives required under PADEP Guidelines and Regulations. ARI met with Borough representatives and PADEP and conducted a site walk over and reviewed the compost facility permit application prior to submission. ARI submitted the compost facility permit application to PADEP Northeast Regional Office in November of 2003. The application is currently under review by PADEP. A copy of the application is included in Attachment A.

## **6.0 Project Development/Costs**

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

# **NAZARETH 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  
MANAGEMENT  
706 MONROE STREET  
STROUDSBURG, PENNSYLVANIA 18360**

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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**  
Nazareth Borough                                      (610) -759-0202  
30 Belvidere Street  
Nazareth, PA 18064
2. **Facility:** Nazareth Borough                                      **Contact Telephone Number**  
**Contact:** Donald Keller    (610)-759-9700  
**Street Address:** 49 East Center Street  
Nazareth, PA 18064

**State:** Pennsylvania    **Zip Code:** 18064  
**City-Borough-Township of:** Nazareth Borough  
**County:** Northampton

**Sponsoring Municipality:** Nazareth Borough

**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:** Three-acres  
**Maximum quantity of yard waste and composted materials to be on the site at any one time:** 6,000 cubic yards  
**Yard waste in cubic yards:** 6,000 cubic yards  
**Finished compost in cubic yards:** 4000 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 - at site of windrow location**

**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.**
  - Nazareth Borough will provide a drop off leaf, yard waste and grass clippings collection program for residents at the compost site.
  - The Borough of Nazareth will provide leaf and yard waste from its fall collection program.
  - Yard waste generated from Nazareth Borough; 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?**

To collect leaf waste, a vacuum truck system is used by the Borough. The leaf collection trucks will deliver leaves directly to the Nazareth 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.

Residents will deliver leaf, yard waste and grass clippings to the compost site.

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

All loads of incoming leaf/yard waste delivered by the Borough'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 Borough personnel, placed in on site containers and properly disposed of by the Boroughs contracted hauler (WMI). Plastic bags delivered by residents will immediately be opened and the contents inspected. Unacceptable material (if any) will be removed and returned to the resident, as will the plastic bag.

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

Residents and leaf collection trucks delivering materials to the compost site will unload in the approximate location where a windrow is to be formed. A municipal owned front-end loader, with a one cubic yard bucket; will be used to form windrows in semi-circular shapes.

Grass clippings delivered to the site by residents will be incorporated into windrows within 24 hours of delivery. Grass clippings will be mixed with leaf waste at a ratio of three parts leaf waste to one-part grass clippings.

- **Describe the windrow size:**

Initial windrow dimensions will be 16' wide x 8' 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.

- **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 110 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 front-end loader will be used to turn and reform windrows. The loader's bucket will lift the organic material and allow it to cascade back into the windrow several times. This type of windrow turning provides for optimum mixing and loose deposition of material, enhancing porosity and increasing airflow.

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

Turning frequency will be based on maintaining the proper environment for microbial activity/accelerated decomposition.

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 (110 - 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 110 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.

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: 120-180 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.**

Compost will be made available to the Borough's residents. The Borough will place an ad in local newspaper(s) advertising the availability of the compost, at the site on specific dates and at specific times.

- **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 containers. Waste containers will be collected by WMI and disposed of at Grand Central Landfill.

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

A phone is located at Borough maintenance (located adjacent to the compost site) will be used in case of an emergency. Personnel working at the site will also have a two-way radio. Both the police and fire departments will be briefed as to the compost sites, layout and standard operating procedures. The fire station is within one mile of the site.

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

The Borough 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 will be distributed. The brochure will provide program details, and encourage participation. The Borough will also publicize the distribution/availability of compost to its residents in a similar manner.

**ATTACHMENT A**

**SITE LAYOUT**

**(BASE MAP)**

**ATTACHMENT B**

**SITING RESTRICTIONS**

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

Nazareth Borough's compost facility located at Gracedale Avenue, Upper Nazareth Township, Northampton County, Pennsylvania (see attached "Site Map"), 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 (see accompanying flood plain map).

**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 used for crop production and tilled annually.

**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 the proposed site (based on review of Northampton 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.**

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**

All 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 will minimize the potential occurrence of any odor causing conditions.

Improving drainage at the compost site (placement of a 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 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 and mulch windrows will also be accomplished.

Noise from operating equipment should not present a problem given the location of the

site (abutting a quarry), the lack of any nearby sensitive receptors and the limited work effort required to manage the relatively small volume of organic materials.

Dust generated by access roads or by processing machinery will be suppressed by use of a water trailer (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 and properly disposed of.

## **SECTION 2**

# **NAZARETH BOROUGH CONTINGENCY PLAN FOR EMERGENCY PROCEDURE**

# Nazareth Borough

**PREPARDNESS PREVENTION**

**AND**

**CONTINGENCY PLAN**

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

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

Nazareth Borough (Borough) plans to develop a leaf and yard waste compost facility. The site is to be located on a three-acre parcel in Nazareth Township, Northampton County. The project will not require additional zoning approval. The project is designed to process leaf and yard waste collected in Nazareth Borough.

The leaf and yard waste facility will occupy approximately three-acres, within the five-acre parcel, owned by the Borough of Nazareth. Materials accepted for processing/composting will be leaves, yard waste and grass clippings as per PADEP "Guidelines for Yard Waste Composting Facilities".

The leaf waste and grass clippings will be composted aerobically using open-air windrow technology and mechanized equipment to promote, 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 the Borough 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 grass clippings will be formed into new windrows or incorporated into existing windrows by a front-end loader. Grass clippings 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 using a front-end loader equipped with a one cubic yard bucket.

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 110 to 140 degrees Fahrenheit). If the internal temperature of a windrow falls below or rises above the thermophilic range, it is 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.

Yard waste is composed primarily of tree, brush and hedge trimmings. These materials will be processed into mulch using a grinder. The mulch will be formed into windrow type formations and stored on site, pending use by the Borough or distribution to the residents.

The Borough collects leaves curbside during the fall of the year and will deliver them to the compost site. The Borough will also deliver tree trimmings, resulting from storm

events and tree maintenance, to the compost site. Mulch piles will be monitored for temperature to prevent spontaneous combustion. Residents will be permitted to deliver leaf and yard waste, grass clippings and Christmas trees to the compost site. The compost and mulch produced, at the compost site, will be distributed to the public and used by the Borough for landscaping of municipal properties.

#### **A2. Description of Existing Emergency Response Plan**

The Borough's current Emergency Response Plan does not specifically address the compost site.

#### **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 will be 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**

This is a new facility and therefore 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 situation 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 situation 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 DEP as required under this Plan.

The PPC Committee will consist of, Mr. Ernest Fehnel, Highway Superintendent as the PEC and, Mr. Keith Knecht Asst. Highway Superintendent (facility operator), 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:** Mr. Ernest Fehnel

Home Address: 215 East, North Street

Nazareth, PA 18064

Home Telephone: (610) 759-5487

Business Address: Nazareth Borough

30 Belvidere Street

Nazareth, PA 18064

Business Telephone: (610) 759-0202

**Secondary:** Mr. Keith Knecht

Home Address: 57 South Cedar Street

Nazareth, PA 18064

Home Telephone: (610) 759-8984

Business Address: Nazareth Borough

30 Belvidere Street

Nazareth, PA 18064

Business Telephone: (610) 759-0202

### **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 situation, the PEC must immediately:

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

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 advisable. Additionally, he will immediately notify the Department by telephone at (570) 826-2516 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 necessary); and

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.

The Primary and/or Secondary Emergency Coordinator will ensure that no leaf/yard waste is processed or stored in the affected area, until cleanup PPC Plan is cleaned and fit for its intended use before operations will be resumed. The PEC will review and document the effectiveness of the emergency planning and control measures.

**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:**                    Mr. Ernest Fehnel

Home Address:            215 East, North Street

Nazareth, 18064

Home Telephone: (610) 759-5487

Business Address: Nazareth Borough

30 Belvidere Street

Nazareth, PA 18064

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30 Belvidere Street

Nazareth, PA 18064

Business Telephone: (610) 759-0202

## **C1. External Factors**

The Nazareth Borough 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 and grass clippings 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 (readily available at the adjacent Borough Maintenance Building).

## **C2. Material Compatibility**

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

All composting windrows will be monitored on a regular basis (once a week for the first

## **C3. Inspection and Monitoring Program**

month, then once a month thereafter). The inspection will include checking temperature at fifty-foot linear intervals. Long stem (four- foot) thermometers will be used to monitor windrow temperatures. Windrows will be turned when temperatures drop below 110 or exceed 140 degrees Fahrenheit. Water content is also monitored

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); and one five-pound A/B/C extinguisher located on mobile processing equipment. Routine inspection/maintenance of all fire extinguishers is conducted annually. A fire hydrant is located at the maintenance garage, within eight hundred feet of the site.

#### **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. A common entrance and exit gate located at the access road to the site will be secured and locked whenever the facility is not operating. 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. The Borough 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 Borough operational, safety and maintenance procedures to ensure requirements will be 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 operation, an internal communications system is not practical or necessary. External communication will be by two-way radios.

#### **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.

#### **D5. Emergency Equipment**

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

<b>Description (Location),</b>	<b>Intended Use,</b>	<b>Capabilities</b>
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) Maintenance Building		

## **E. EMERGENCY SPILL CONTROL NETWORK**

### **E1. Arrangements with Local Emergency Response Agencies and Hospitals**

A Nazareth Borough 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 it's 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 to be necessary.

### **E2. List of Agencies to be Notified**

Dept. of Environmental Protection	(570)-826-2516
National Response Center	1-800-424-7362
County Control Center	911 or (610)-759-2600
PA State Police	911 or (610)-861-2026
Borough Fire Co. Fire Department	911 or (610)-759-7318
Hospital/Medical Center	911 or (610)-250-4000

