

# ATTACHMENT 1

## Waste Analysis Plan and Unknown Identification Protocol





### SECTION 3.0 WASTE CHARACTERISTICS

Oils contaminated with PCBs oil are the only controlled hazardous substances (wastes) stored at the Facility. Therefore, only PCB analyses are conducted on the oil-filled equipment and containerized (drummed) cleanup materials received from BGE's electrical generation, transmission, and distribution system. PCB contaminated wastes are wastes which contain between 50 and 500 parts per million (ppm) PCBs. These wastes are considered Maryland toxic wastes, and are designated with waste code MT01. Wastes contaminated with greater than 500 ppm PCBs are classified as Maryland acute hazardous wastes and are designated with waste code M001. Any residue, contaminated soil, water, or used spill cleanup materials from any PCB-contaminated or PCB spill are assigned the waste code MX01.

#### 3.1 Waste Analysis Plan [COMAR 26.13.07.02D(17)]

In accordance with COMAR 26.13.05.02D(2), BGE has prepared a written waste analysis plan which describes the procedures that will be used to comply with COMAR 26.13.05.02D. The Sections below constitute the Waste Analysis Plan.

##### 3.1.1 Chemical and Physical Analyses [COMAR 26.13.05.02D(1) and 26.13.07.02D(16)]

As the owner operator, BGE is required to obtain a detailed chemical and physical analysis of a representative sample of the PCB waste oil in order to properly treat, store, and dispose of the waste. Excelon Generation maintains and utilizes their Industrial Services Laboratory. Wastes at the PCB Waste Storage Facility are sampled, analyzed, and results are reported according to the EPA's SW-846 Hazardous Waste Test Methods. An example of the laboratory test results are included as Figure 3-1.

Alternatively, PCB analyses may be performed by independent laboratories located in the Baltimore area, in the unlikely event that the Industrial Services Laboratory is unavailable. If the use of an independent laboratory is required, only a certified laboratory certified by the State of Maryland for the analysis will be used.

##### 3.1.2 Parameters and Rationale [COMAR 26.13.05.02D(2)(c)(i)]

PCB wastes are sampled and analyzed only for PCBs, since PCBs and electrical insulating oil (mineral oil) are neither ignitable, corrosive, nor reactive. There is also no change in composition to the oil during use which would alter its constituents. Oil is placed within the sealed transformer units and components prior to placement within the electrical grid. The oil within the units acts as an electrical insulator (dielectric fluid) to prevent electrical discharges. No other materials are added to the oil during the use of the unit. A copy of the relevant Safety Data Sheets (SDSs) for Aroclor 1254 (PCB) and mineral oil are located in *Appendix A*.

##### 3.1.3 Test Methods [COMAR 26.13.05.02D(2)(c)(ii)]

PCBs are analyzed using chemical extraction procedures followed by an electron capture/gas chromatography analytical method approved by the State of Maryland. A copy of Excelon Generation's Industrial Services Laboratory: Determination of Polychlorinated Biphenyls (PCBs) by Gas Chromatography (CY-ES-119, rev 003) procedure is included in *Appendix B*.

### 3.1.4 Sampling Methods [COMAR 26.13.05.02D(2)(c)(iii)]

Sampling methods used to obtain representative samples of PCB wastes are in accordance with COMAR 26.13.02.20 and are described below:

**Field sampling:** Samples of oil from electrical equipment, or liquid contaminated with oil from spill cleanups, are collected at the field location in 20 milliliter (ml) glass vials. The vial is immersed in the oil and then capped. The external surface of the vial is thoroughly wiped and cleaned prior to transporting to the lab. The vial is then labeled, identifying the sample number, location or equipment ID number (asset number), and date. The sample(s) are transported to the PCB Waste Storage Facility the same day they are taken. All samples received at the PCB Waste Storage Facility are transported to the Industrial Services Laboratory located at the Fort Smallwood Road Complex, 1015 Brandon Shores Road Baltimore, MD 21226, within 24 hours of receipt, for analysis.

Only samples of the original insulating fluid within the equipment are taken, unless there is insufficient original fluid remaining in the equipment. Visibly contaminated soil or water samples are collected at the field locations, either directly from the actual (visible) spill site or from materials placed into drums during cleanup. The soil samples are obtained using a clean shovel or other sampling device, placed into 4oz glass jars, labeled for identification (as above), and transported to the PCB Waste Storage Facility who will then transport the samples within 24 hours to the Industrial Services Laboratory for analysis. In the event that samples are received at the PCB Waste Storage Facility in a container other than a 4oz glass jar (i.e. clean plastic bags), the Facility will immediately upon receipt, transfer the sample to an appropriate container.

**Tank sampling:** Samples of oil from the tanks are obtained using either a vial, colliwasa, or other State approved sampling device. The sampled oil is then placed into a 20 ml glass vial and the vial is capped. The external surface of the vial is thoroughly wiped and cleaned and then the vial is then labeled, identifying the sample number, location or equipment ID number (asset number), and date. The sample(s) are transported to the Industrial Service Laboratory for analysis within 24 hours of being taken.

### 3.1.5 Frequency of Analysis [COMAR 26.13.05.02D(2)(c)(iv)]

All oil-filled electrical equipment, except those labeled "Askarel" or other known PCB trade names, are sampled either when they are received at the PCB Waste Storage Facility for evaluation, or when they are removed from the electric system service location prior to transporting to RBC Complex. Spill cleanup materials are sampled for analysis in the field locations where they are generated.

Mixtures of PCB ( $\geq 500$  ppm), or PCB-contaminated (50-499 ppm) materials, with non-PCB materials are managed as if the mixture contained the same PCB concentration of the original PCB contaminated material. Such mixtures are not analyzed separately; they are identified using the codes for the original material. Spill cleanup materials of unknown PCB origin are analyzed for PCBs only if the original fluid is not available for analysis.

Equipment labeled with PCB trade names, such as 'Askarel', or cleanup materials from 'Askarel' equipment spills, are not analyzed to determine the PCB contamination level. These items are assumed to contain PCBs ( $> 500$  ppm) and are managed as PCB wastes.

**3.1.6 Additional Requirements for Waste Generated Off-Site  
[COMAR 26.13.05.02D(2)(c)(v)]**

Liquid wastes that may be contaminated with PCBs may also be tested for the presence of silicone oil, as required by the waste disposal vendor. No other additional analysis are performed.

**3.1.7 General Requirements for Ignitable, Reactive, or Incompatible Wastes [COMAR  
26.13.05.02D(2)(c)(vi) & H]**

The Facility currently only stores and handles PCB contaminated wastes, therefore, the requirements of this section are not applicable.



## ATTACHMENT 2

### Procedures to Prevent Hazards







## 5.0 PROCEDURES TO PREVENT HAZARDS

### 5.1 Security [COMAR 26.13.07.02D(18)]

#### 5.1.1 Security Procedures and Equipment [COMAR 26.13.05.02E]

Several features, in addition to general security provisions such as fencing, gates, and guards contribute to the safety and security of BGE's PCB Waste Storage Facility. Adequate lighting is supplied in both the PCB Waste Storage Facility and Central Warehouse during both day and night. Guards carry two-way radios which can be used to report unusual occurrences or conditions during business hours. Entry gates to the Facility are controlled via electronic access during non-business hours. Persons wishing to access the facility during non-working hours must call the Facility to arrange access. The Central Warehouse and the PCB Waste Storage Facility have telephone and Public Address System access readily available to alert responsible persons of accidents or other hazardous incidents.

Employees reporting for work are required to show identification badges. Entry into the warehouse is by card-key access and doorways. Visitors, contractors, and vendors are required to sign in and are issued visitor badges while on Company property.

Inadvertent or accidental contact with PCB wastes by persons other than Company employees or contractors is unlikely. PCB wastes are secured in wooden/cardboard or metal containers, or the aboveground storage tanks. Tanks and containers are kept closed, except when materials are being added or removed, or when the tank or container contents are being inspected.

#### 5.1.2. 24-Hour Surveillance System [COMAR 26.13.05.02E(2)(a)]

Security at BGE's RBC complex is maintained by a staff of trained security guards, who primarily monitor entry and exit from the office and warehouse complex from 7 AM to 3 PM business hours. Outside of business hours, there is electronic access at the gate. Inspection of the yard and building areas, by the guard force, during evening and non-operating hours occurs once per 8-hour shift. Yard areas are monitored by BGE employees during normal working hours, for unauthorized personnel. In addition, there is 24-hour video surveillance.

#### 5.1.3 Barriers and Means to Control Entry [COMAR 26.13.05.02E(2)(b)-(c)]

The PCB Waste Storage Facility is entirely enclosed by an eight-foot-high, chain-link fence topped by three (3) strands of barbed wire. The chain-link fence also surrounds the outdoor equipment storage yard and the Central Warehouse facility. The fence has five (5) gates, one located at the west end of the yard (main truck entrance), one at the north end (near the outdoor storage area), and three near the east side of the enclosure, adjacent to the Electric Test building.

#### 5.1.4 Warning Signs [COMAR 26.13.05.02E(3)]

Signs reading "DANGER - Unauthorized Personnel Keep Out", and which are legible from at least 25 feet are posted at all fence gates and several other fence locations around the PCB Waste Storage Facility. PCB warning labels are also posted around the exterior wall, and next to and on the entry and exit doors to the Facility. "NO SMOKING" signs which are legible for at least 25 feet are also posted near the PCB Waste Storage Facility.

### 5.1.5 Waiver [COMAR 26.13.07.02D(20)]

BGE does not request a waiver of the requirements regarding injury to intruders and violation by intruders.

## 5.2 Inspections [COMAR 26.13.07.02D(19)]

### 5.2.1 General Inspection Requirements and Schedule [COMAR 26.13.05.02F(1) & (2)(d)(i), COMAR 26.13.07.02D(19)]

Facility personnel conduct regular inspections of the facility for equipment malfunctions, structural deterioration, container condition, operator error, and leaks or discharges that could cause or lead to the release of hazardous waste constituents and adversely affect the environment or threaten human health.

Figure 5-1 presents the schedule for inspecting monitoring equipment, safety and emergency equipment, security devices, operating and structural equipment, the container storage area, the tank storage area and tanks (internally and externally). The items listed in the table are considered important because of their role in preventing, detecting, or responding to environmental or human health hazards.

In addition to the inspection schedule outlined in Figure 5-1, the facility is also performing monthly AST inspections as required by 40 CFR 112 and the Facility SPCC Plan (*Appendix C*).

### 5.2.2 Anticipated Problems [COMAR 26.13.05.02F(2)(c)]

Anticipated problems, such as malfunctions or deterioration, for each item to be inspected are noted in Figure 5-1. Persons performing the inspection will note the on the inspection form any observed issues or deficiencies, in addition to those listed on the inspection schedule.

### 5.2.3 Specific Process Inspection Requirements [COMAR 26.13.07.02D(19)]

#### 5.2.3.1 Container Inspection [COMAR 26.13.05.09E]

All container storage areas are inspected on a daily basis. The results of the inspection are recorded on an inspection log sheet, entitled "RBC-WTF PCB Area Inspection Sheet" (Figure 5-2). The inspection log sheet includes the inspection form which is to be completed, and two (2) reference pages which include expanded descriptions of items which must be inspected on a daily and weekly basis. Persons performing the inspections may use the reference pages to ensure all items are inspected as required. Information requested on the log sheet includes the inspector's name, day of week, status evaluation of various items, observations, and remedial actions taken, if necessary. The inspector is required to make a status evaluation of the various areas and equipment identified on the inspection sheet and indicate if the item's condition is acceptable or not. If the status of a particular item is not satisfactory, the inspector is required to make note of the deficient condition and any corrective actions taken to resolve the situation. An example of a recent inspection logs for the PCB Waste Storage Facility is included in Figure 5-3.

#### 5.2.3.2 Tank Inspection [COMAR 26.13.05.10]

Daily inspections of the aboveground tanks in the PCB Waste Storage Facility will include function of overflow alarm equipment and level indicators, daily volume readings, observations for corrosion and signs of a release (See Figure 5-2 'Inventory - Storage Tank' log sheet). Weekly inspections will include visual observations of the sumps, gratings, supports, piping, and external surface of the tanks. Weekly and daily inspection logs for the facility are included in Figure 5-2. The aboveground tanks will be inspected

externally every three years (triennial) coating integrity, cracks, leaks, corrosion, structural integrity, and general condition. The aboveground tanks will be inspected internally every five (5) years for internal cracks, leaks, corrosion, structural integrity, and general internal condition [COMAR 26.13.05.10]. External inspection records are included in *Appendix E*.

#### **5.2.4 Remedial (Corrective) Actions [COMAR 26.13.05.02F(3)]**

If inspections reveal that non-emergency maintenance activities are needed, they will be completed as soon as possible to preclude further damage and reduce the need for emergency repairs. If a hazard is imminent, or is observed to have already occurred, during the course of an inspection or any time between inspections, corrective actions will be taken immediately or as soon as the hazard is discovered. Baltimore Gas and Electric personnel will notify the appropriate authorities pursuant to the Contingency Plan (see Section 6.0) and initiate immediate remedial actions. In the event of an emergency involving the release of hazardous waste to the environment, efforts will be directed towards containing the hazard, removing it, and subsequently decontaminating the affected area. Refer to the Contingency Plan for further details.

#### **5.2.5 Inspection Logs [COMAR 26.13.05.02F(4)]**

Inspection logs for the PCB Waste Storage Facility are maintained in hard copy format within three-ring binders. The hard copy inspection records for the container areas are located in the Facility supervisor's office which is located within the Waste Storage Facility. Copies of completed inspections are retained for three (3) years. A copy of a recent completed inspection log can be found in Figure 5-3.

### **5.3 Preparedness and Prevention Requirements [COMAR 26.13.05.03]**

#### **5.3.1 Waiver of Preparedness and Prevention Requirements [COMAR 26.13.07.02D(20)]**

BGE does not request a waiver of the preparedness and prevention requirements of COMAR 26.13.05.03. These requirements are addressed in Sections 4.0, 6.0, and 7.0 of this application.

#### **5.3.2 Equipment Requirements [COMAR 26.13.05.03C]**

Communications equipment, emergency equipment, and fire control equipment are discussed in Section 6.0. Water for external and internal fire protection is provided by the public water supply system, provided to the RBC complex by the local municipalities (*see Appendix D*).

#### **5.3.3 Aisle Space Requirement [COMAR 26.13.05.03F]**

Aisle space will be maintained as required by COMAR 26.13.05.02I(2). Aisle space will be maintained at a width of no less than two (2) feet to allow for inspection, the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area within the Facility in an emergency.

### **5.4 Preventative Procedures, Structures and Equipment [COMAR 26.13.07.02D(22)]**

#### **5.4.1 Loading/Unloading Operations [COMAR 26.13.07.02D(22)(a)]**

Electrical equipment containing dielectric fluids are received at the Facility at the loading docks. The loading docks are designed for the safe handling of all Controlled Hazardous Substances, including PCB waste materials and electrical equipment. The loading docks consist of concrete aprons which are designed to contain approximately 15,000 gallons each, in case of a spill from either equipment or containers on the

loading dock, or from a tanker truck parked in the loading dock bay (maximum tanker capacity of 6,000 gallons). During unloading and draining operations, spills are unlikely. However, in the event of an accident, the material will be contained with standard industrial absorbents, absorbent booms and pads. Contaminated cleanup material will be accumulated in containers and processed for storage prior to disposal in the same manner as other PCB waste.

After being unloaded, the equipment manifest is reviewed. Equipment which still contains oil and has been identified as requiring sampling for PCBs is staged in the culling area. Samples of oil are taken utilizing safe work practices and the sampling methods described in Section 3.0. After a sample is taken from a piece of equipment, the sample and the equipment are each labeled with the sample number and asset tag number. The equipment is then stored within the facility until the laboratory analytical results are received. Containers or equipment are taken into the storage area via forklift truck and placed in a storage rack.

Upon receipt and review of the analytical results, equipment then receives a color-coded tag. A blue tag indicates that the equipment is non-PCB containing (0 – 49 ppm), a yellow tag indicates that the equipment is PCB-containing (50 – 500 ppm), and a red tag indicates that the equipment contains PCBs and is considered an acute hazardous waste (<500 ppm). Equipment which is marked with either a blue or yellow tag is drained into the appropriate AST, Tanks 643 and 642 respectively. Equipment which is marked with a red tag is not drained and is stored and the facility until it is shipped to a disposal facility.

Equipment to be drained of oil is removed from storage via forklift or overhead crane taken to the culling area for dielectric fluid transfer to the appropriate storage tank. During draining operations, spills are unlikely. However, in the event of an accident, the material will be contained with standard industrial absorbents, absorbent booms and pads. Contaminated cleanup material will be accumulated in containers and processed for storage prior to disposal in the same manner as other PCB waste.

#### **5.4.2 Runoff [COMAR 26.13.07.02D(22)(b)]**

Spills or leaks occurring inside the PCB Waste Storage Facility will not reach the outdoor yard area. Precipitation from the rooftop and yard areas in front of the loading dock is channeled to the RBC Complex stormwater drains. Refer to Section 2.0 for more information regarding stormwater runoff for the PCB Waste Storage Facility.

#### **5.4.3 Water Supplies [COMAR 26.13.07.02D(22)(c)]**

Groundwater and surface water contamination is prevented by eliminating the discharge of PCB wastes onto unprotected soil and by preventing contact with stormwater. All PCB waste materials are managed inside the Facility, where spills can be contained within the concrete containment areas. The only identified potential for outdoor releases is during transportation of PCB wastes to and from the Facility.

#### **5.4.4 Equipment and Power Failure [COMAR 26.13.07.02D(22)(d)]**

Power failure at the PCB Waste Storage Facility terminates all power to operating equipment. Power failure will trigger activation of the emergency lighting system. Pump piping in the PCB Waste Storage Facility is equipped with check valves to prevent back siphoning of oil out of the tank(s) during transfer operations from oil-filled equipment or to a tank truck in the event of a power failure.

#### **5.4.5 Personal Protective Equipment [COMAR 26.13.07.02D(22)(e)]**

Requirements and recommendations for personal protective clothing and equipment used when working with PCB wastes in the facility are discussed in Section 6.0 and also in *Appendix F: Personnel Safety*.

**5.5 Prevention of Reaction of Ignitable, Reactive, or Incompatible Wastes  
[COMAR 26.13.07.02D(24)]**

BGE's PCB Waste Storage facility is not used for storing ignitable, reactive or incompatible wastes. PCB waste materials have a high flash point and are not reactive or incompatible (See Safety Data Sheet for Askarel and mineral oil; *Appendix A*). Handling procedures for PCB wastes (non-ignitable, non-reactive and compatible) are detailed in the Oil and PCB Spill response Procedures - EWP 220-1 in *Appendix G*.

**5.5.1 Precautions to Prevent Ignition or Reaction of Ignitable or Reactive Wastes  
[COMAR 26.13.07.02D(24)]**

Although ignitable or reactive wastes are not stored in this facility, signs are placed in the container storage area clearly marked with the legends, "NO SMOKING" and "Danger - Unauthorized Personnel Keep Out" to prevent a possible source of external ignition to combustible materials. All forklifts used in the PCB Waste Storage facility are electric battery-powered. There are no open flame sources in the PCB Waste Storage facility.

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**FIGURE 5-1**

**Inspection Schedule**



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**PCB WASTE STORAGE FACILITY INSPECTION SCHEDULE**

<b>Area/Equipment</b>	<b>Specific Item</b>	<b>Types of Problems</b>	<b>Frequency of Inspection</b>
Monitoring Equipment	Liquid level transmitters (tanks)	Transmitter signal, electrical circuitry	Daily
Safety and Emergency Equipment Notes: See Monthly Inspection log sheet for minimum quantities on hand (Append D)	Standard Industrial absorbents (Sorb-All, Vermiculite, Speedy-dri, etc.)	Out of Stock	Monthly/as needed
	Absorbent boom	Out of Stock	Monthly/as needed
	Absorbent pads	Out of Stock	Monthly/as needed
	Submersible pump	Power, clogging	Monthly
	Flexible hoses with quick couple fittings	Cracks or holes, fittings stick	Monthly
	55-Gallon drums(steel)	Corrosion, structural damage	Monthly
	Emergency shower and eyewash	Water pressure, leaking drainage	Weekly
	Face shields and extra protective eyeglasses	Broken or dirty equipment	Monthly
	Disposal respirators	Out of stock	Monthly/as needed
	Portable sump pump	Power, clogging	Monthly
	Fire extinguishers	Needs recharging	Monthly/after use
	Sprinkler system	Actuation system	Quarterly
	Fire alarm system	Power failure	Annually
	Telephone System	Power failure	As used
	Public address (PA) system	Power failure, speakers	Quarterly
	Emergency lighting system	Battery failure, lights	Monthly
	First aid equipment and supplies	Items out of stock	Monthly/as needed
	Capsur	Water supply, fuel supply	As used
Protective clothing (Impermeable full body coveralls, gloves and foot coverings)	Holes, normal wear and tear	As used	
Decontamination facility (showers, dirty room, clean room)	Water pressure, leaking, drainage, upkeep	As used	
Security Devices	Facility entrance	Corrosion, damage to chain-link fence or barbed wire	Quarterly
	North gate (main entrance)	Corrosion, damage to chain-link fence or barbed wire	Quarterly
	West gate and lock	Corrosion, damage to chain-link fence or barbed wire	Quarterly
	Container storage area doors		
	Remote control is north gate	Transmitter or receiver, sticking of gate	Upon Failure

**PCB WASTE STORAGE FACILITY INSPECTION SCHEDULE**

<u>Area/Equipment</u>	<u>Specific Item</u>	<u>Types of Problems</u>	<u>Frequency of Inspection</u>
Operating and Structural Equipment	Dikes	Cracks, deterioration	Daily
	Bases or foundations	Corrosion, uneven settlement, cracks and spilling in concrete pads, base rings and piers, deterioration of water seal between tank bottom and foundation, wet spots	Daily
	Sump pump (manual)	Power, clogging	Daily
	Ramps	Corrosion, uneven settlement, cracks and spilling in concrete	Daily
	Sump areas	Corrosion, uneven settlement, cracks and spilling in concrete, wet spots	Daily
	Tank structural supports	Concrete deterioration and cracking, corrosion of pipe supports	Daily
	Storage areas	Leaks, spills	Daily
	Steel Storage Racks	Corrosion, physical damage	Daily
	Container Storage Area	Container placement and stacking	Aisle space, height of stacks
Sealing of containers		Open lids	Weekly
Labeling of containers		Improper identification, date missing	Weekly
Containers		Corrosion, leakage, structural defects	Weekly
Segregation of incompatible wastes		Storage of incompatible waste in same area	Weekly
Pallets		Damaged (e.g. broken wood, warping, nails missing)	Weekly
Doors			
		Cracking, spilling, uneven settlement, erosion, wet spots	Weekly
	Base of foundation	Cracking, spilling, uneven settlement, erosion, wet spots	Weekly
	Dikes	Cracks, deterioration	Weekly
	Sump area	Cracks, spilling, uneven settlement erosion, wet spots	Weekly
	Debris and refuse	Clog sump pump, aesthetics, possible reaction with leaks	Weekly
	Ramps	Cracks, spilling, uneven settlement, erosion	Weekly
	Warning signs	Damaged	Weekly

**PCB WASTE STORAGE FACILITY INSPECTION SCHEDULE**

<u>Area/Equipment</u>	<u>Specific Item</u>	<u>Types of Problems</u>	<u>Frequency of Inspection</u>
Tank storage area and ancillary equipment	Dike	Cracks deterioration	Daily
	Base or foundation	Cracks, spilling, uneven settlement, erosion, wet spots	Daily
	Sump pump (Manual)	Power, clogging	Daily
	Sump area	Cracks, spilling, uneven settlement, erosion, wet spots	Daily
	Warning signs	Damaged	Daily
	Pipes	Loss of metal thickness, leaks, corrosion or deterioration	Daily
	Valves	Loss of metal thickness, leaks, corrosion or deterioration	Daily
	Fittings	Loss of metal thickness, leaks, corrosion or deterioration	Daily
	Overfill control valve (manual) and level indicator	Loss of metal thickness, leaks, corrosion or deterioration, sticking, damaged handle	Day of use
Tank (externally)	Ladder	Damaged, structural stability	Weekly
	Foundation/structural supports	Cracks, spilling uneven settlement, erosion, wet	Weekly
	Pipe Connections	External corrosion, cracks, disortion	Weekly
	Protection coating	Rust spots, blisters, film lifting	Weekly
	Tank shell	Corrosion, discoloration, cracks, buckles, bulges	Weekly
	Anchor bolts	Distortion, corrosion	Weekly
Tank (internally)	Tank shell	Corrosion of vapor space, and liquid level line, cracking bulges, holes, loss of metal thickness, seams	Every 5 years

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**FIGURE 5-2**

**Daily/Weekly Inspection Logs**

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**Daily/Weekly Inspections**  
**PCB Storage Areas - Waste Transfer Facility**

Week of:

Part I: Daily	Mon.	Tues.	Wed.	Thurs.	Fri.	Comments	Action Taken
<b>Storage Racks</b>							
Area Secure							
Leaks							
Signs Posted/Visible							
Inspected By:							
<b>Storage Tanks</b>							
Area Secure							
Leaks							
Signs Posted/Visible							
Inspected By:							
<b>Equipment</b>							
Monitoring							
Safety & Emergency							
Operating & Structural							
Tank Storage Area and Ancillary							
Inspected By:							

Part II: Weekly	Date	Comments	Action Taken
Security Devices			
Operating & Structural Equipment			
Container Storage			
Tank Storage Area and Ancillary Equipment			
Tank (Externally)			
Inspected By:			

Additional Comments:

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# INSPECTION SCHEDULE

MONTH OF \_\_\_\_\_ 19 \_\_\_\_

Area/Equipment	Specific Item	Inspection Date	Minimum Quantity	Comments
Safety & Emergency Equipment	Standard absorbents (Sorball, vermicullite Speedy-dri)		40 gal per drum	
	Absorbent booms		50	
	Absorbent pads		100	
	Submersible pump w/flex hoses & quick connects		1	
	55-gal drums		10	
	Face shields		3	
	Safety glasses		6	
	Disposable respirators		12	
	Fire extinguishers		6	
	Disposable gloves		100	
	Coveralls		25	
	Shoe covers		25	
CORRECTIVE ACTION(S)				
Signature of Inspector:				



PRODUCT INVENTORY - STORAGE TANK -

MUNICIPALITY: BALTIMORE COUNTY

FACILITY: WASTE TRANSFER, RUTHERFORD BUSINESS CENTER

INSTALLED 1993 CONSTRUCTION: STEEL CONTENTS:

BG&E TANK NUMBER:

COLOR CODE: BLUE MONTH:

GALLONS				
DAY	AM GALLONS	OIL ADDED	OIL REMOVED	PM GALLONS
1				0
2	0			0
3	0			0
4	0			0
5	0			0
6	0			0
7	0			0
8	0			0
9	0			0
10	0			0
11	0			0
12	0			0
13	0			0
14	0			0
15	0			0
16	0			0
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# APPENDIX F

## Personnel Safety



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**Appendix F: Personnel Safety (Subsection 7 – PCB Management Guidelines for the Purchasing and Materials Department)**

**1. Introduction**

Substances which exert a chronic toxic effect must first gain entry into the body. They may do this through any of three routes – by inhalation of the vapor, by absorption through the skin, or by ingestion. Inhalation of PCB can be controlled by avoiding work with hot PCB liquids, by providing ventilation, or by using a respirator. Absorption can be prevented by use of protective clothing and careful work practices. Ingestion can be avoided by not eating, drinking, or smoking in the work area and washing up before eating, drinking or smoking.

**2. Work Practices**

- A. Smoking, drinking, and eating are prohibited in work areas containing PCB. Clean hands with waterless cleaner before eating, drinking, smoking, or using toilet facilities.
- B. All contaminated tools and equipment shall be cleaned with solvent before being removed from the work area. Provide adequate ventilation when working with solvent.
- C. Avoid work practices which splash or spread PCB liquids.
- D. Avoid skin and eye contact with PCB's.

**3. Eye Protection**

- A. Splash proof go a face shield (See table 1-1) shall be worn whenever PCB liquids are handled.

**4. Respiratory Protection**

- A. Ventilation of the work area is the preferred method of reducing airborne levels of PCB, and is usually all that is needed. Respirators shall be used only after ventilation is shown to be ineffective, or in the event of an emergency entry into a contaminated area.
- B. All use of respiratory protection shall conform to the requirements of BG&E's Respiratory Protection Program.
- C. Respiratory protection is not usually required when handling PCB or PCB contaminated liquids at temperatures less than 120 degrees Fahrenheit.

**5. Protective Clothing**

- A. Approved gloves shall be worn whenever PCB fluids or waste material are directly handled. It is recommended that approved gloves also be worn whenever PCB contaminated fluids or waste material are directly handled. For intermittent contact, the nitrile gloves carried in Company stock (see table 1-1) are adequate. Handling of completely closed systems, such as intact transformers and capacitors, sealed waste drums, etc., are exempt from the requirement for gloves.

- B. Disposable coated overalls shall be worn whenever direct contact with PCB liquids cannot be avoided. For intermittent contact with PCB liquids, the polyethylene coated coveralls carried in Company stock (see table 1-1) are adequate.
- C. In the event the liquid penetrates the protective clothing, the clothing should be removed as soon as practical. If the liquid has penetrated to the skin, clean the affected area with a waterless type cleaner and wipe dry with disposable towels. The towels and protective clothing shall be disposed of as burnable solid Askarel waste.
- D. Personal clothing soiled with Askarel shall be disposed of as PCB solid waste.
- E. Employees shall report contamination of their personal clothing to their supervisor.

**6. First Aid**

- A. Eye contact – flush with water for 15 minutes, seek medical attention if irritation develops or persists.
- B. Skin contact – clean with a waterless hand cleaner, followed by washing with soap and water. Seek medical attention if irritation develops or persists.
- C. Inhalation – remove to fresh air, seek medical attention for persistent symptoms.
- D. Employees developing skin rash or other symptoms which could have resulted from handling PCB shall contact the Medical Section.

**Table 1-1: Approved Protective Equipment**

<b>Description:</b>
Glove, nitrile, 12 mil, size 8, 9, 10, 11
Glove viton, 14 mil
Coverall, disposable polyethylene-cated Tyvek, size XL
Coverall, disposable, saranex-coated Tyvek
Shoe cover, disposable PVC
Boots, rubber
Goggles
Face shield headgear, Wilson V5
Visor, clear 8" for use with above headgear
Respirator, MSA Ultra twin, full face
Organic vapor cartridge for MSA respirator
Respirator, Survivair, full face
Organic vapor cartridge for Survivair respirator

# ATTACHMENT 3

## Personnel Training







## 7.0 PERSONNEL TRAINING

### 7.1 Outline of Training Program [COMAR 26.13.07.02D(28)]

#### 7.1.1 Training Content, Frequency, and Technique

Provisions are made for updating or revising the relevant training programs/courses as necessary to ensure compliance with changes in Federal and State environmental regulations.

BGE's training for PCB waste management includes considerable on-the-job training for specific task-related activities. On-the-job training includes hands-on use of equipment, handling of PCB waste materials, and inspections of PCB storage units. New employees are not allowed to work unsupervised until they complete the training requirements outline in Sections 7.2 and 7.3. New employees must also work in PCB storage areas under the supervision of a senior employee until they have gained the necessary experience to perform those tasks in an unsupervised situation.

BGE also provides online training through the use of a Learning Management System (LMS). Employees are required to complete the relevant assigned LMS courses on an annual basis and must pass the test at the end of each course in order to receive credit. Applicable LMS training courses content are described in Section 7.3.2.

#### 7.1.2 Training Director [COMAR 26.13.05.02G(1)(b)]

The personnel hazardous waste training program is directed by Mr. Steve Fuchsluger, Senior Engineer. Mr. Fuchsluger has been employed with Baltimore Gas & Electric for over twenty-five years, as an expert on PCBs and hazardous waste management. Hazardous waste and PCB training is coordinated with the Purchasing Department's Supervisor - Materials Services.

### 7.2 Implementation of Training Program [COMAR 26.13.05.02G(2)]

The director of the training program and all current waste handling personnel have completed the Company's training at the time of this submittal. In the future, all new personnel will complete this training program within 6 months of assignment to the hazardous waste storage facility or within 6 months of their date of employment, whichever is later. No employee hired to work at this facility will work in an unsupervised, PCB waste-related activity prior to completion of the training program.

Employees are required to meet annually for a review and update of this training program and to discuss and study the following subjects:

- 1) All PCB wastes currently being handled at the facility, noting any changes in waste type, volume, source, characteristics, or location that have occurred during the past year.
- 2) The status of staging and operating conditions and procedures, noting any areas where there are problems or potential for problems. Employees participate in developing effective solutions.
- 3) The requirements contained in the facility's CHS permit, noting any changes that have occurred during the past year. Areas where maintenance of compliance is a problem are identified and discussed and effective solutions are sought.
- 4) Incidents that have occurred in the past year that warranted use of contingency plans and/or emergency action. This review focuses on the cause of the incident and identification of steps to be taken to prevent or to ensure better handling of such events in the future.

The annual review will also utilize the facility's annual report to MDE as a working document for the review. Records documenting the job title for each position, job descriptions, written description of the type and amount of continued training, records that training has been completed, names of employees, and completed training programs (both introductory and review) are kept on site and electronically within the LMS. These records will be kept until closure of the facility for current employees and for 3 years from the date of an individual employee's termination or relocation.

### 7.3 Training Course Descriptions

#### 7.3.1 PCB Management Guidelines

The PCB Management Guidelines of the Purchasing and Materials Management Department are used as the basis or framework for training BGE personnel in the proper procedures, equipment, and systems to be used in managing PCB wastes. Training for normal or routine operating conditions includes the following topics:

- Proper operation and maintenance of the storage facility equipment.
- Scheduled inspections
- Purpose and use of security and communications systems.
- Monitoring requirements for tracking and recording the operation of the facility
- Record keeping requirements and procedures.

A brief description of each section of the PCB Management Guidelines are as follows:

##### Subsection 1 – General

This section introduces Baltimore Gas and Electric employees to the general classes and characteristics of chemicals and chemical wastes that can be hazardous to health and property. In this context, the term PCB is defined. It is Baltimore Gas and Electric's policy that each employee handling chemical substances (raw materials, finished products, by-products, and wastes) respect them and be aware of these potential hazards. The Company's policy on the use of protective clothing and safety equipment to prevent accidental worker exposures and releases to the environment of hazardous chemicals and wastes is introduced.

The authority for regulating hazardous wastes under the Resource Conservation and Recovery Act (RCRA) also is discussed. The regulatory framework for classifying hazardous wastes, setting operational standards, and permitting procedures and achieving compliance is explored. The CHS Storage permit for Baltimore Gas and Electric is also discussed to be sure that each employee is familiar with its terms.

##### Subsection 2 - Receipts of PCB Hazardous Wastes at Baltimore Gas and Electric

This section focuses on the types of hazardous wastes that are handled and stored at Baltimore Gas and Electric, normal/routine storage operations, and procedures for maintaining compliance with the CHS permit (e.g., documentation of receipt, record keeping, and container use).

##### Subsection 3 - Labeling/Marking

This section provides instructions for proper label application on waste containers/drums.

Subsection 4 - Recordkeeping & Disposition

This section provides instruction for providing a storage and disposal record for PCB wastes. This section also includes document retention requirements.

Subsection 5 - Storage for Disposal

This section provides instruction for acceptable storage areas.

Subsection 6 - Manifesting

This section provides detailed instructions for properly completing a hazardous waste manifest, including a table of Baltimore Gas and Electric waste generator ID numbers.

Subsection 7 - Personnel Safety

This section describes how substances which exert a chronic toxic effect may enter the body. Substances may do this by inhalation of the vapor, absorption through the skin or by ingestion. The section emphasizes safe work practices, eye and respiratory protection, protective clothing and recommended first aid.

Subsection 8 - Inspection

This section provides for inspection requirements.

Subsection 9 - Training

This section provides for training schedules, document requirement and retention period.

Subsection 10 - Closure Plan

This section provides procedures for cleaning the facility at the end of the facility's useful lifetime, in preparation for returning the facility to use as a general warehouse.

Subsection 11 - Spill Clean-up

This section provides procedures for spill reporting and clean-up requirements, notification responsibilities, special handling consideration, taking samples and a list of emergency coordinators.

Subsection 12 - Handling/Processing - Oil Filled Equipment

This section provides direction in the handling of oil-filled equipment to ensure oils are handled in a manner which does not jeopardize personnel safety or harm the environment.

Subsection 13 - Transportation

This section provides for work practices developed to act as guide for Baltimore Gas and Electric delivery personnel during transportation of PCB's.

### 7.3.2 LMS Training Courses

The following LMS training courses are required for employees performing work at the Facility. Each course has an exam following the completion of the course that must be passed.

#### Hazardous Waste Management

This course explains employee responsibility when generating hazardous waste including identification, proper handling, disposal, record retention, and emergency response. New employees must be trained within six months of starting a new position that involves hazardous waste management.

#### Hazardous Waste Manifest

This training reviews hazardous waste regulations, the uniform hazardous waste manifest and transportation requirements for hazardous waste.

#### PCB Management and Regulations

This course describes regulations, practices and procedures related to PCB management, PCB pipe program and oil spill response and reviews employee responsibilities for prompt response, reporting, cleanup, disposal of debris and documentation.

#### Oil Spill & SPCC Response (BGE)

This course explains responsibilities of the first responder related to the SPCC plan and increases awareness of regulations, practices and procedures related to oil spill response, including prompt response and reporting, proper cleanup and disposal of debris. The course is specifically designed to help employees understand the practical steps to comply in routine and emergency situations. The course is specifically designed to help employees understand the practical steps to comply in routine and emergency situations.

#### Complexes Spill Prevention Control & Countermeasure Site Specific (SPCC) (BGE)

This course describes employee responsibility in the event of a spill including notification, personal protection, containment, clean up, decontamination, and disposal.

#### Forklift Operator Training (Initial and Reevaluation)

This course requires employees who will operate a forklift within the Waste Storage Facility to complete both a written and hands-on training. At the end of the course, employees must be able to demonstrate proper operation of a forklift. Re-evaluation/re-qualification is required every three (3) years.

#### BGE Environmental Awareness Training

This annual course explains BGE Environmental Policy and the BGE Environmental Management system including roles and responsibilities of employees in this system.

### CHS Permit Training

This training reviews the overall requirements of the Controlled Hazardous Substances (CHS) Permit and the responsibilities of BGE employees and first line leader to ensure the safety and health of their coworkers and themselves and minimize the chance of a PCB release from the Waste Transfer Facility (WTF).

#### **7.3.3 Training for Emergency Response [COMAR 26.13.05.02G(1)(c)]**

This training program is designed to ensure that personnel not only handle hazardous wastes in a safe manner but also properly respond to emergency situations. The program trains hazardous waste handling/management personnel to maintain compliance under both normal operating conditions and emergency conditions.

Training elements addressing non-routine and emergency situations (unscheduled shutdowns and start-ups related to storms, power outages, fires, explosions, spills) include:

- Procedures for locating, using, inspecting, repairing, and replacing facility emergency and monitoring equipment.
- Key procedures for automatic waste feed cutoff systems.
- Emergency communication procedures and alarm systems.
- Response to fires or explosions.
- Response to ground contamination incidents (spills) and procedures for containing, controlling and mitigating spills.
- Shutdown of operations and power failure procedures.

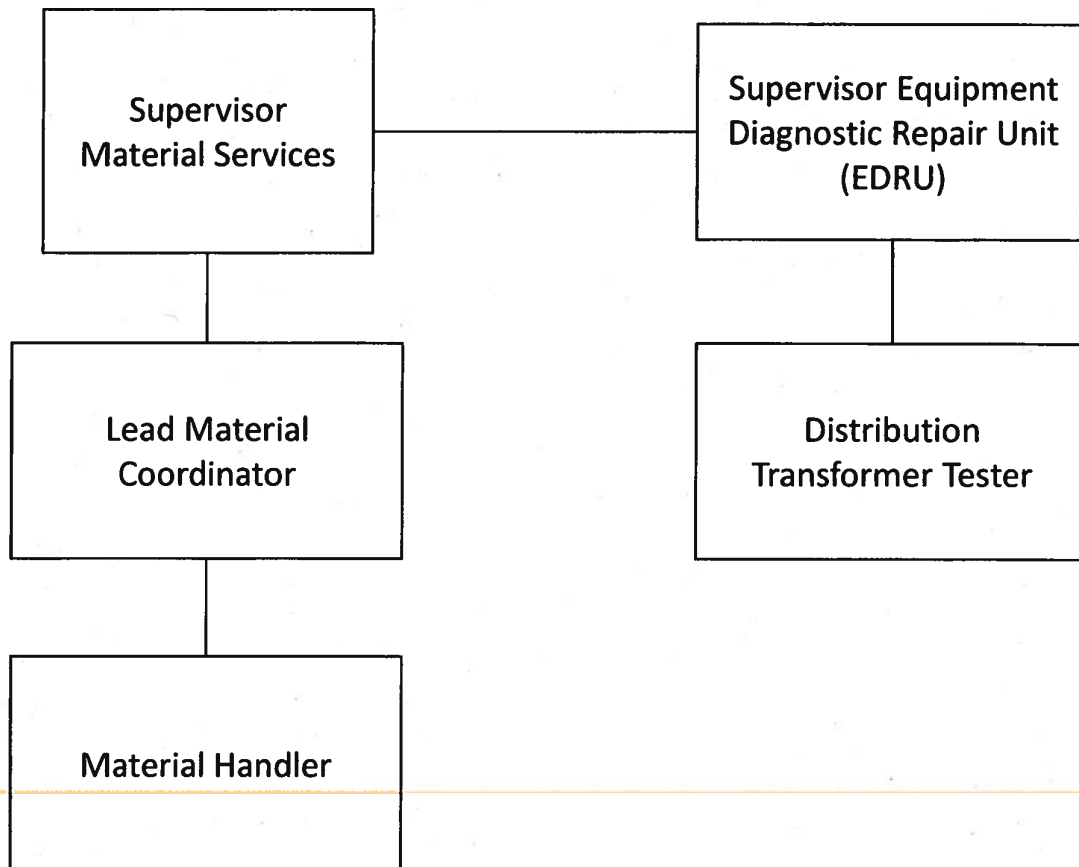
#### **7.4. Relevance of Training to Job Position**

Mr. Steve Fuchsluger, Senior Engineer, Environmental Management Unit, is responsible for teaching PCB and hazardous waste management procedures, including contingency plan implementation, to all facility personnel involved with the PCB waste handling activities.

##### **7.4.1 Job Titles and Duties [COMAR 26.13.05.02G(4)(a)]**

Figure 7-1 shows the organization of personnel who are involved with managing PCB waste materials at the facility. Several BGE employees are directly involved with the handling of waste: the Supervisor(s) - Warehouse Operations, and several Lead Material Coordinators and Material Handlers. The Electric Test Department also has several employees regularly involved with direct handling of PCB waste materials, including taking samples from and testing of oil-filled electrical equipment: Electrical Tester, Senior Electrical Tester, and Distribution Transformer Tester. Guidance concerning compliance with state CHS and Federal PCB waste regulations, but not involving actual handling of the wastes, is provided by environmental staff from BGE's Environmental Management Unit. Job descriptions for BGE personnel who handle PCB wastes at the facility are included in *Appendix H*.

## Organization Chart for Baltimore Gas & Electric Company's PCB Waste Storage Facility



**Training Requirements Matrix for the BGE PCB Waste Storage Facility**

<b>Training Course</b>	<b>Position</b>				
	<i>Supervisor Material Services</i>	<i>Lead Material Coordinator</i>	<i>Material Handler</i>	<i>Supervisor Equipment Diagnostic Repair Unit</i>	<i>Distribution Transformer Tester</i>
Hazardous Waste Management	X	X	X		
Hazardous Waste Manifest	X	X	X		
PCB Management and Regulations	X	X	X		X
Oil Spill & SPCC Response (BGE)	X	X	X	X	X
Complexes Spill Prevention Control & Countermeasures Site Specific (SPCC) (BGE)	X	X	X	X	X
BGE Environmental Awareness Training					
CHS Permit Training	X	X	X		
Forklift Operator Training		X	X		

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# **APPENDIX H**

## **Job Descriptions for PCB Waste Storage Facility Personnel**

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# EXELON CORPORATION

## Job Description

### JOB IDENTIFICATION

<b>JOB TITLE:</b> Supervisor Materials & Logistics	<b>JOB CODE:</b> NSDC
<b>OP CO / BUS UNIT:</b> Business Services Company	<b>SALARY GRADE:</b> E03
<b>PRACTICE AREA:</b> Supply	<b>FLSA STATUS:</b> Exempt

### PRIMARY PURPOSE OF POSITION

Supervise the day-to-day warehouse / storeroom operations and management of the warehouse and ensure effective implementation of the processes designed to control inventory. Directly supervise warehouse storeroom employees.

### PRIMARY DUTIES AND ACCOUNTABILITIES

Item	Accountability	%
1	Implement initiatives designed to assure the highest levels of warehouse, retail site and delivery services; including scheduled and emergency/emergent customer requests to support Exelon's reliability and customer satisfaction goals.	20%
2	Support client focused interface with customers to effectively align inventory management processes with work planning and CM material needs.	15%
3	Supervise warehouse management process that include, but not limited to: Material pick, issue, staging and return, transportation to retail sites. Manage open and working stock, cycle count, in-storage maintenance, and shelf life management.	35%
4	Supervise the pole delivery process including daily monitor and stocking of pole bunkers, safe delivery to job sites, and return of pole to inventory as need where appropriate.	20%
5	Support balancing cost control with client needs to meet service, cost and asset management needs	10%
6	Support the Business Units' Emergency Response activities as assigned	As Required

### POSITION SPECIFICATIONS

<b>Minimum:</b> Bachelor's Degree in business, engineering, science or related field with five (5) years experience or High school diploma or equivalent, with eight (8) years of experience Working knowledge of the Inventory, Purchasing, and Accounts Payable modules of Passport (Purchasing, Contracts, and Action Tracking)	<b>Preferred:</b>
--	-------------------

### POSITION SCOPE

Provide support for the execution of the inventory management process including inventory distribution for major distribution facilities, remote job sites, emergency warehouses in remote locations, and stating areas in support of achieving the customers reliability and customer satisfaction goals; and in support of emergency restoration of services.
Position impacts external customer satisfaction in terms of service reliability (outage duration and frequency).
Supervise Supply warehouse and shop employees.
Direct interface with business unit clients representing various departments.
Travel on average 50% across Exelon sites and business units as business needs dictate.

### DISCLAIMER

The preceding position description is intended to provide the general nature and level of work to be performed by employees within this classification. It is not intended to be a detailed description of the position or a comprehensive listing of all duties, responsibilities, and qualifications required of employees assigned to this position, nor is it intended to indicate the exact amounts of time an individual will perform various position duties.

### APPROVALS

Approved by: <u>Michele Hurley</u>	Date: 12/22/2010
<u>Charles Davis, Jr</u>	Date: 12/22/2010
<u>Stephen Baniecki</u>	Date: 12/22/2010

Position Description: Lead Material Coordinator Job # 385B (BGE)

**JOB SUMMARY:**

Performs all required functions of a work leader within the M&L section. Analyzes pending work and develops and controls work schedules in collaboration and or in the absence of supervision. Makes assignments as necessary to ensure efficient operations are maintained and are in accordance with appropriate regulations. Coordinates activities with other warehouse locations and user department representatives as needed to prioritize and meet customer material/equipment needs. Utilizes miscellaneous systems to monitor stock levels, plan work, track orders, and to obtain data for various status reports. Supports and makes strategy recommendations in conjunction with storm recovery efforts and provides logistical support for other emergency situations, as needed. Maintains current level of knowledge on regulations and technologies that impact material handling, crane operation, storage and delivery and makes recommendations for procedure changes and process improvements.

**REPORTS TO:**

Various

**PRIMARY DUTIES AND RESPONSIBILITIES:**

In the absence of supervision, assumes the responsibility for sustaining operations at the company central warehouse at all times including back-shifts, weekends and holidays as required.

Responsible for ensuring that all shipments and deliveries meet applicable federal and state safety requirements including regulations associated with hazardous material and oversized loads.

Must have the ability to safely operate all equipment necessary to move and handle material. Issues materials for emergency jobs unloads and process receipts and returns.

Assigns location to new stock material consistent with safety and productivity requirements. Assures all daily inspection cards or Daily operator Check-off lists from OSHA are completed and on time.

Provides training, coaching and development assistance for Material Handlers.

Issues materials for emergency orders, unloads and processes returns. Assigns locations to new stock materials, within a specific zone of responsibility, based on projected activity.

Responsible for receipt, storage and shipment of miscellaneous hazardous materials. Assures that proper sealable containers are utilized when required. Assures all material is placed in the proper storage area.

Assures all work is in compliance with license / permit for handling equipment at the Waste Transfer Facility.

**JOB SPECIFICATIONS:**

Thorough knowledge of Company territory and facilities locations.

Working knowledge of a computerized Warehouse Management System.

Working knowledge of regulations and procedures pertaining to transporting hazardous materials, poles, construction equipment, including interstate assignments.

Working knowledge of truck cranes and rigging procedures related to materials delivery.

**SKILLS / ABILITIES:**

Ability to meet Company driving standards, including a valid valid class D driver's license. Must have a valid Class A "Non-Restricted" license.

Ability to obtain company administered industry Rigging & Crane certification.

Must pass U. S. Department of Transportation required chemical test.

**Education/Experience:**

Four years of work experience in a stock handling and material distribution function or equivalent combination of formal education/training and experience.

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Human Resources

**BALTIMORE GAS & ELECTRIC**  
**JOB DESCRIPTION**

<b>Job Title:</b> Materials Handler	<b>Department:</b> Various	<b>Location:</b> Maryland
<b>FLSA Classification:</b> Non-Exempt	<b>EEOC Code:</b> 0801	<b>Effective Date:</b> March 1, 2009
<b>Job Code:</b> 770F	<b>Grade / N/A for Exempt:</b> 09	

**Job Summary:**

**Reports To:**

Varies

**Primary Duties and Responsibilities: (\*essential job functions)**

Interprets computer-generated sequenced picking, packing and container-preparation lists to pick, batch, accumulate, pack and load all material orders; verifies orders for completeness. Operates a variety of material handling equipment such as tri-loader, order-selector, forklift trucks, and 15-ton yard crane, and routinely works from a moving platform to pick materials from heights up to 20 ft. Receives and inspects materials received from vendors and returned from the system. Issues test reports and prepares samples for testing. Determines if materials are to be returned to stock or held for sale or scrap. Stores materials in designated areas, observing activity/size storage concepts. Packs and ships materials being returned to vendors. Accumulates, packs and ships materials for resale, repair or service exchange. Accumulates, packs and ships all scrap material. Restocks bins from bulk storage. Picks, packs and loads all emergency orders. Stores and ships hazardous materials. Assures that proper sealable containers are utilized when necessary. Moves material to appropriate storage area. Makes periodic inspections for leakage. Inspects equipment being used. Prepares "Daily Inspection Card" or "Daily Operator Check-Off List" from OSHA. Changes, waters, and charges electrical mobile equipment batteries to assure proper operation. Maintains security and safe work practices in assigned areas.

Note: May load and deliver materials to plant drop points and replenish "free stock" bins. May be required to work at other storerooms.

**Job Specifications:**

**Knowledge:**

**Skills/Abilities:**

Demonstrated ability to understand, retain and follow instructions.

Ability to produce legible documents.

Ability to learn operation of material handling equipment - hand operated and machine powered.

Ability to meet Company driving standards, including a valid driver's license.

**Education/Experience:**

Over two years work experience in a stock handling function or equivalent education.

**Competencies:**

**Disclaimer:** May perform other duties as assigned. May be required to respond to emergency events.

**Other** (including physical requirements, working conditions, etc.): See Attached

Reviewed by: \_\_\_\_\_  
(Division) date (Human Resources) date



**JOB SUMMARY PHYSICAL DEMANDS**

In the performance of the ESSENTIAL elements of this Job, the following are required.

**CHECK (X) FOR ALL THAT APPLY:**

**SENSORY REQUIREMENTS:**

Sight  Smell  Hearing  
 Touch  Taste

**Comments:**

**ABILITY REQUIREMENTS:**

Speak English  
 Speak a Second language (indicate language)  
 Read English  
 Write English  
 Operate standard office equipment (please specify equipment)

- Operate special equipment (Please specify equipment)
- Drive an automobile/light truck/van
- Drive a vehicle requiring special skills (Please specify)

Comments:

**PHYSICAL REQUIREMENTS:**

In an eight-hour workday, (insert number of hours per day for each activity).

Activity	Number of Hours
A. Sit	6
B. Stand	1
C. Walk	1/2
D. Drive	1/2

Comments:

Ability to lift shipping boxes weighing up to 60 lbs.

In terms of an eight hour workday (select the category that applies to each activity)

On the job employees must:	Not at all	Occasionally (1/4 - 2.5 hrs)	Frequently (2.5 - 5.5 hrs)	Continuously (5.5 - 8 hrs)
Bend/Stoop		X		
Climb	X			
Reach above Shoulder level		X		
Kneel		X		
Balance		X		
Push/Pull		X		
Squat		X		
Crawl	X			
Crouch		X		

Comments:

During work the employee must lift:

On the job the employee must lift:	Not at all	Occasionally (1/4 - 2.5 hrs)	Frequently (2.5 - 5.5 hrs)	Continuously (5.5 - 8 hrs)
Usual amount ___ lbs		X		
Maximum amount ___ lbs.		X		

Comments:

On the job, employee uses hands for repetitive actions such as:

Indicate hours worked daily	Simple Grasping	Firm Grasping	Fine Manipulation	Keyboard Entry
Right hand				

Left hand				
Both				6

Comments:

On the job, employee will:

Category	No	Yes	Explain
Be working at heights	X		
Be operating machinery	X		
Be operating desk machines		X	Pc
Have precise manual dexterity	X		
Be exposed to marked changes in temperature or humidity	X		
Be exposed to dust, fumes, gases, chemicals	X		

Comments:

**Strenuous physical required** – Job offers are contingent on passing a strenuous physical that will be conducted by Occupational Health Services.

**Crane Operator** – Job offers are contingent on passing a strenuous physical/crane operator exam that will be conducted by Occupational Health Services.





Human Resources

## BALTIMORE GAS & ELECTRIC JOB DESCRIPTION

<b>Job Title:</b> Distribution Transformer Tester	<b>Department:</b> System Protection & Automation	<b>Location:</b> Maryland
<b>FLSA Classification:</b> Non Exempt	<b>EEOC Code:</b> 3 / 2	<b>Effective Date:</b> March 1, 2009
<b>Job Code:</b> 349C		

### Job Summary:

### Reports To:

Supervisor – Equipment Diagnostic & Repair

### Primary Duties and Responsibilities: (\*essential job functions)

Performs field inspections, tests, and repairs on electric distribution equipment and associated microprocessor controls at service locations to enhance customer reliability and avoid customer outages. Checks and modifies internal connections of equipment and microprocessor controls for special applications. Inspects equipment for changes in design from previous shipments and for evidence of damage in transit and makes repairs to correct defects. Inspects and tests equipment returned from service and determines its reliability and safety for continued service. Evaluates on-site repair versus replacement and shop repair. Assesses personnel, equipment and time required for safe, on-site repairs and tests. Performs repairs expeditiously to maintain customer satisfaction. Operates various power and hand tools. Performs URD switching and grounding to de-energize equipment to be repaired. Inspects and tests new transformers and other electrical distribution and safety equipment to determine acceptability, conformance to specifications and safety for use on system. Documents all field findings of equipment conditions in corporate and local databases. Uses portable computers and various programs to download and retrieve data from field equipment. Proactively communicates with customers, vendors, engineers, and leadership of other BGE organizations to discuss solutions. Coordinates with the proper BGE organizations for outages when required. Makes core loss, copper loss, exciting current, impedance, and capacitance measurements using voltmeters, ammeters, wattmeters, and transformer turn ratio testers. Operates high voltage test sets up to 200,000 volts and is responsible for proper placement of safety barriers during electrical tests and for the safety of personnel in vicinity of tests. Performs detailed electrical power calculations using Ohms Law. Designs electrical schematics associated with Distribution Automation control and monitoring installations. Interprets nameplates, vector and wiring diagrams, blueprints and test results. Views wave forms and event data to analyze feeder and equipment operations on the electric distribution system. Purchases material, designs, assembles and installs electrical control cabinets in the field to interface with Distribution Automation equipment.

**Job Specifications:**

**Knowledge:**

Knowledgeable of safety procedures and work practices for working around and on high voltage electric distribution equipment.

**Skills/Abilities:**

Ability to be trained to perform URD switching and grounding to isolate electric distribution equipment.

Demonstrated ability to program, operate and repair microprocessor controls for electric distribution equipment.

Demonstrated ability to communicate effectively, with tact and good judgment in dealing with other BGE organizations and customers.

Satisfactory completion of the Construction and Skilled Trades Test Battery

Ability to be certified regularly in CPR and First Aid.

Valid driver's license and ability to meet Company driving standards.

Works indoors or outdoors at Company locations or on customer premises

Subject to overtime including emergency call-ins and off-hour outages

**Education/Experience:**

Comprehension level to understand blueprints and vector diagrams and over four years experience as an Electrical Tester or equivalent combination of formal education/training and experience.

**Competencies:**

**Disclaimer:** May perform other duties as assigned.

**Other** (including physical requirements, working conditions, etc.): See Attached

Reviewed by: \_\_\_\_\_ date \_\_\_\_\_  
(Division) (Human Resources)



## JOB SUMMARY PHYSICAL DEMANDS

In the performance of the ESSENTIAL elements of this Job, the following are required.

**CHECK (X) FOR ALL THAT APPLY:**

**SENSORY REQUIREMENTS:**

Sight  
 Touch

Smell  
 Taste

Hearing

**Comments:**

**ABILITY REQUIREMENTS:**

- Speak English
- Speak a Second language (indicate language)
- Read English
- Write English
- Operate standard office equipment (please specify equipment)
- Operate special equipment (Please specify equipment)
- Drive an automobile/light truck/van
- Drive a vehicle requiring special skills (Please specify)

**Comments:**

**PHYSICAL REQUIREMENTS:**

In an eight-hour workday, (insert number of hours per day for **each** activity).

<u>Activity</u>	<u>Number of Hours</u>
A. Sit	_____
B. Stand	_____
C. Walk	_____
D. Drive	_____

**Comments:**

Occasionally lifts items weighing up to 75 lbs.

In terms of an eight hour workday (select the category that applies to each activity)

On the job employees must:	Not at all	Occasionally (1/4 - 2.5 hrs)	Frequently (2.5 - 5.5 hrs)	Continuously (5.5 - 8 hrs)
Bend/Stoop				

Climb				
Reach above Shoulder level				
Kneel				
Balance				
Push/Pull				
Squat				
Crawl				
Crouch				

Comments:

During work the employee must lift:

On the job the employee must lift:	Not at all	Occasionally (1/4 - 2.5 hrs)	Frequently (2.5 - 5.5 hrs)	Continuously (5.5 - 8 hrs)
Usual amount lbs				
Maximum amount lbs.				

Comments:

On the job, employee uses hands for repetitive actions such as:

Indicate hours worked daily	Simple Grasping	Firm Grasping	Fine Manipulation	Keyboard Entry
Right hand				
Left hand				
Both				

Comments:

On the job, employee will:

Category	No	Yes	Explain
Be working at heights			
Be operating machinery			
Be operating desk machines			
Have precise manual dexterity			
Be exposed to marked changes in temperature or humidity			
Be exposed to dust, fumes, gases, chemicals			

Comments:

Position Description: Lead Material Coordinator Job # 385B (BGE)

**JOB SUMMARY:**

Performs all required functions of a work leader within the M&L section. Analyzes pending work and develops and controls work schedules in collaboration and or in the absence of supervision. Makes assignments as necessary to ensure efficient operations are maintained and are in accordance with appropriate regulations. Coordinates activities with other warehouse locations and user department representatives as needed to prioritize and meet customer material/equipment needs. Utilizes miscellaneous systems to monitor stock levels, plan work, track orders, and to obtain data for various status reports. Supports and makes strategy recommendations in conjunction with storm recovery efforts and provides logistical support for other emergency situations, as needed. Maintains current level of knowledge on regulations and technologies that impact material handling, crane operation, storage and delivery and makes recommendations for procedure changes and process improvements.

**REPORTS TO:**

Various

**PRIMARY DUTIES AND RESPONSIBILITIES:**

In the absence of supervision, assumes the responsibility for sustaining operations at the company central warehouse at all times including back-shifts, weekends and holidays as required.

Responsible for ensuring that all shipments and deliveries meet applicable federal and state safety requirements including regulations associated with hazardous material and oversized loads.

Must have the ability to safely operate all equipment necessary to move and handle material. Issues materials for emergency jobs unloads and process receipts and returns.

Assigns location to new stock material consistent with safety and productivity requirements. Assures all daily inspection cards or Daily operator Check-off lists from OSHA are completed and on time.

Provides training, coaching and development assistance for Material Handlers.

Issues materials for emergency orders, unloads and processes returns. Assigns locations to new stock materials, within a specific zone of responsibility, based on projected activity.

Responsible for receipt, storage and shipment of miscellaneous hazardous materials. Assures that proper sealable containers are utilized when required. Assures all material is placed in the proper storage area.

Assures all work is in compliance with license / permit for handling equipment at the Waste Transfer Facility.

**JOB SPECIFICATIONS:**

Thorough knowledge of Company territory and facilities locations.

Working knowledge of a computerized Warehouse Management System.

Working knowledge of regulations and procedures pertaining to transporting hazardous materials, poles, construction equipment, including interstate assignments.

Working knowledge of truck cranes and rigging procedures related to materials delivery.

**SKILLS / ABILITIES:**

Ability to meet Company driving standards, including a valid valid class D driver's license. Must have a valid Class A "Non-Restricted" license.

Ability to obtain company administered industry Rigging & Crane certification.

Must pass U. S. Department of Transportation required chemical test.

**Education/Experience:**

Four years of work experience in a stock handling and material distribution function or equivalent combination of formal education/training and experience.

---

# ATTACHMENT 4

## Contingency Plan







## 6.0 CONTINGENCY PLAN

### 6.1 General Information [COMAR 26.13.05.04B]

The discoverer of a non-fire related emergency situation at the facility should immediately contact the PCB Waste Storage Facility supervisor or person on duty by calling the Facility office, 410-597-7622. The person reporting the incident must provide the following information:

- Name
- Location
- Nature of the emergency

The person in charge of the PCB Waste Storage Facility receiving the call will immediately initiate clean-up procedures and then notify the Assistant General Supervisor - Central Warehouse of the action(s) taken. The person discovering a fire-related incident developing at the facility will immediately activate a manual pull fire alarm station, prior to evacuating the area and contacting the Central Warehouse operations supervisor.

**Table 6-1: Emergency Responder Contact Information**

<b>Agency or Office</b>	<b>Contact Information</b>
Baltimore County Fire Department	911 410-887-4500 (Information) 410-887-1350 Woodlawn Station (Station 3)
Baltimore County Police	911 410-887-2214 (Information) 410-887-1340 Woodlawn (Precinct 2)
Maryland State Police	911 410-486-3101 Pikesville Barracks
Maryland Department of the Environment Solid Waste Compliance Division	410-537-3315 1-866-633-4686 (24-hours)
National Response Center	1-800-424-8802
Exelon Security Operations Center (ESOC) BGE Occupational Health Services (OHS) BGE Risk Management	1-800-550-6154 410-470-9075 1-677-313-1679

**6.2 Emergency Coordinators [COMAR 26.13.05.04C(4)]**

During periods when the facility is manned, Emergency Coordinators should be contacted in the order listed below. Contact one or more Emergency Coordinators and give:

1. Your name, and location;
2. Location and nature of emergency incident;
3. Type and quantity of material(s) involved;
4. Personnel at the facility and any actions that have been initiated.

**Table 6-2: Facility Emergency Coordinators**

Name, Title	Office	Home	Home Address
T.P. Zimmerman Supervisor	410-470-8955	REDACTED REDACTED	REDACTED REDACTED
M. Dunmeyer Supervisor	410-470-4794	REDACTED REDACTED	REDACTED REDACTED
R. Arnold Jr. Supervisor	410-470-8941	REDACTED REDACTED	REDACTED REDACTED
B.C. Schneider Lead Material Coord.	410-470-7586	REDACTED REDACTED	REDACTED REDACTED
J.M. Miller Lead Material Coord.	410-470-7586	REDACTED REDACTED	REDACTED REDACTED
K.B. Johnson Lead Material Coord.	410-470-8942	REDACTED REDACTED	REDACTED REDACTED
E.N. Johnson Lead Material Coord.	410-470-8945	REDACTED REDACTED	REDACTED REDACTED
J.S. Miller Lead Material Coord.	410-470-7586	REDACTED REDACTED	REDACTED REDACTED
A. Smith, Lead Material Coord	410-470-7586	REDACTED REDACTED	REDACTED REDACTED
Weekend (from 11:30pm Friday to 5:00am Monday) pager			410-470-6600 pager #1682
Weeknight (11:30pm to 5:00am) pager			410-470-6600 pager #1682
<i>Waste Transfer Facility</i>			
T.P. Zimmerman, Supervisor	410-470-8955	REDACTED	REDACTED

If an emergency occurs when the warehouse is unmanned, (weeknights 11:30pm to 5:00am and weekends from 11:30pm Friday to 5:00am Monday) contact the on-call Emergency Coordinator via the pager identification shown above.

### **6.3 Implementation of the Contingency Plan [COMAR 26.13.05.04C(1) and F]**

The decision to implement the Contingency Plan depends upon whether or not an imminent or actual incident could threaten human health or the environment. The purpose of this section is to provide guidance to the emergency coordinator in making this decision by providing decision-making criteria. The contingency plan will be implemented in the following situations:

1. **Fire and/or Explosion**
  - a. A fire causes the release of toxic fumes.
  - b. The fire spreads and could possibly ignite materials at other locations on site or could cause heat-induced explosions.
  - c. The fire could possibly spread to off-site areas.
  - d. A danger exists that an explosion could occur, causing a safety hazard because of flying fragments or shock waves.
  - e. A danger exists that an explosion could ignite other hazardous waste at the facility.
  - f. A danger exists that an explosion could result in release of toxic material.
  - g. An explosion has occurred.
2. **Spills or Material Release**
  - a. The spill could cause the release of toxic liquids or fumes.
  - b. The spill can be contained on site, but the potential exists for ground water contamination.
  - c. The spill cannot be contained on site, resulting in off-site soil contamination and/or ground or surface water pollution.

At all times there shall be at least one (1) employee, either at the Facility or on-call, with the responsibility for coordinating emergency response measures. This person shall have the authority to commit the resources necessary to carry out the contingency plan and is authorized to transfer authority for response to an appropriate incident commander, such as the leader of an emergency response team or agency that has responded to the incident.

### **6.4 Emergency Response Procedures [COMAR 26.13.05.04G]**

#### **6.4.1 Notification [COMAR 26.13.05.04G(1)(b)]**

In the event of a non-fire related emergency situation, the emergency coordinator will be notified first. The Emergency Coordinator will subsequently notify the appropriate facility personnel and federal, state, or local agencies including fire or police departments per the Emergency Notification Chart (Figure 6-1).

Incidents involving fire or explosion will require immediate notification of the Baltimore County Hazardous Material Emergency Response Unit (911) and Fire Department.

#### **6.4.2 Identification of Hazardous Wastes [COMAR 26.13.05.04G(2)]**

The Emergency Coordinator will immediately identify the character, exact source, amount, and area/extent of the release. The initial identification method will be to utilize visual analysis of the material and location of the release. Containers are individually marked as to content. Container content and location will be available from the facility's computerized tracking system.

#### 6.4.3 Assessment [COMAR 26.13.05.04G(3)]

The Emergency Coordinator will assess possible hazards, both direct and indirect, to human health or the environment. Spills of liquid or solid PCB wastes that do not enter storm drains would not pose significant threat to health or the environment. Spills of liquids entering the storm drains, or any fire involving PCB wastes could pose a threat to human health and the environment. The Emergency Coordinator will be responsible for making the decision for evacuation of on-site, BGE and contractor personnel. The hazardous material emergency response unit chief will be responsible for making the decision to evacuate off-site personnel. The Emergency Coordinator will be available to assist the hazardous material emergency unit chief in making a decision for off-site evacuation.

#### 6.4.4 Control Procedures [COMAR 26.13.05.04G(4)]

Potential accidents fall under three (3) general classifications: 1) fire and/or explosions, 2) spills or material release, and 3) floods. Natural disasters such as earthquakes or hurricanes are assumed to fall into one of these three (3) classifications.

##### 6.4.4.1 Fire and/or Explosion

The storage tanks and container storage areas can be easily accessed by fire fighting and other emergency vehicles and equipment via the loading dock area. The area immediately to the north and west of the building is paved to allow vehicular access.

If a fire should break out, the firefighting effort will be carried out by local (Baltimore County) hazardous material emergency response units. Firefighting effort will concentrate on preventing the fire from spreading to nearby areas.

The following actions will be taken by the first person who becomes aware of the fire emergency:

1. Ensure that fire doors in buildings will be closed.
2. Hazardous work and or operations in all areas will be shutdown immediately.
3. All feed lines and additional equipment will be turned off and secured.
4. The emergency coordinator will be contacted (see Table 6-2 above).
5. The area will be cleared of all personnel. These persons will report to the designated rally points for accountability. Rally points for buildings adjacent to the PCB Waste Storage facility are designated in Figure 6-2.
6. All injured persons will be removed, and emergency medical treatment will be administered by qualified emergency medical personnel.

Because fire is a potential hazard with spills of combustible materials (i.e. mineral oil), flammable materials are not stored in the PCB Waste Storage Facility. However, flammable materials will be stored in the Central Warehouse adjacent to the PCB Waste Storage Facility. Vehicular traffic and hazardous work in the area will cease until the spill is contained and safety is restored. If a fire is involved and is concentrated at the source of the material, evacuation of people in other nearby buildings will be at the direction of the hazardous material emergency response team chief.

Area or plant evacuation will be necessary in case of any fire or explosion. Specifics are outlined under general evacuation procedures. All facility personnel have been trained in evacuation procedures and means of exit from their respective work areas.

Until evacuation is signaled, personnel who are not in an affected area will stay in their respective work areas. Contract personnel and visitors will be cleared from the area and instructed to report to an appropriate rally point. Supervisors of unaffected areas will stay with their personnel and be ready to evacuate and account for the persons under their supervision.

The hazardous material emergency response unit chief will determine when the emergency has passed and consult with the Emergency Coordinator before the "all clear" signal is given. All emergency equipment used in the emergency and subsequently contaminated with PCBs must be decontaminated and refitted for use prior to resumption of plant operation in the affected areas. Water or other materials used to fight any fire associated with the PCB Waste Storage facility will be contained and cleaned up according to this Section.

#### **6.4.4.2 Spills or Material Release**

In the event of a major emergency involving a spill, the following general procedures will be used for rapid and safe response and control of the situation. Emergency contacts found in Figure 6-1 provide a quick-reference guideline to follow in the event of a major spill.

The initial response to any emergency will be to protect human health and safety, and then the environment. Identification, containment, treatment, and disposal assessment will be the secondary response.

In the event of a leak or spill in the tank area, all feed lines to the storage tanks will be closed. The sumps under each tank in the PCB Waste Storage facility have the capacity to hold the volume of the largest tank (See Section D-1a(3)(c)). Immediately after the spill is detected, spill cleanup will be performed in accordance with existing cleanup procedures detailed in the Oil and PCB Response Procedures – EWP-220-1 (*Appendix G*).

If for some reason a spill is not contained within a dike or sump area, an area of isolation will be established around the spill. The size of the area will generally depend on the size of the spill and the materials involved. If the spill is large and involves a tanker or container rupture, an initial isolation of at least 100 ft. in all directions will be used. Small spills or leaks from a tanker or container will require evacuation of at least 50 ft. in all directions to allow cleanup and repair and to prevent exposure. When any spill occurs, only those persons involved in overseeing or performing emergency operations will be allowed within the designated hazard area. If possible, the area will be roped or otherwise blocked off.

If the spill is associated with a fire, and results in the formation and release of a toxic vapor cloud, further evacuation will be enforced.

Evacuation of the surrounding population will be at the discretion of the local fire unit chief. Industrial areas and adjacent urban areas within one mile of the Facility will be notified, however, if a large quantity of spilled material ignites. In the event of a reportable spill, release, or fire, notification will be given to respective authorities in accordance with the procedures outlined in *Appendix G*, the Facility SPCC, and the information outlined in this Section.

If the Emergency Coordinator determines that the Company is unable to handle the emergency, then appropriate local, State and Federal authorities will be immediately notified of the situation. Evacuation of all potentially affected facility areas will be initiated as soon as possible.

Most waste spills and leaks will be easily contained within the container storage and loading dock areas. All spills will be cleaned up in accordance with *Appendix G*, the Facility SPCC, and the information outlined in this Section.

The following guidelines will be used in case of an accident episode involving waste materials. For all large spills or serious leaks, that cannot be contained and immediately cleaned up using rags or other absorbent material, the following guidelines will be followed as closely as possible:

1. If a leak develops or a spill occurs on site, the person discovering the discharge will leave the immediate area and contact the Emergency Coordinator, and provide the following information:
  - a. Person(s) injured and seriousness of injury.
  - b. Location of the spill or leak, material involved, and source (tank, pipeline, etc.).
  - c. The approximate amount spilled, an estimate of the liquid and the direction the liquid flow.
  - d. Whether or not a fire is involved.
  
2. Next, the Emergency Coordinator will:
  - a. Initiate evacuation of the spill area, if necessary. For small spills or leaks, isolate the spill area at a reasonable distance to restrict access to the affected area by unauthorized persons.
  - b. Obtain emergency medical attention for any injured persons, by telephoning "911" and/or the RBC Dispensary (x7438).
  - c. Call "911" if any fire is involved at the facility. Facility personnel should not attempt to extinguish fires in the waste storage areas. Fires within the facility will trigger automatic alarms and sprinkler systems.
  - d. Dispatch BGE personnel to the spill site to take the appropriate emergency cleanup actions, and direct the County and MDE hazardous materials emergency response unit(s) to the site, if appropriate.
  - e. Notify the proper authorities in the event of any reportable spill that exceeds one (1) pound (0.45 kg) of PCBs (>275 gallons of PCB-contaminated mineral oil or 12 ounces of askarel fluid; or solids containing that volume of fluid).
  
3. Cleanup personnel will:
  - a. Make sure all unnecessary persons are removed from the spill area.
  - b. Put on protective clothing and equipment.
  - c. If possible try to stop the leak.
  - d. Remove all surrounding materials that could be contaminated by spill material. Determine the major components in the waste at the time of the spill.
  - e. Use absorbent pads, booms, earth, sandbags, sand, and other inert materials to contain, divert and clean up a spill if it has not been contained by a dike or sump. Most spills contained within the dike or sump can be placed back into the appropriate storage tank or drum.
  - f. If wastes reach a storm sewer, try to dam the sewer outfall.
  - h. Place all containment and cleanup materials in drums for proper disposal. Some items, such as absorbent rags or booms may have to be cut up.
  - i. Place all recovered liquid wastes and contaminated soil and debris in drums for storage, prior to shipment to an approved disposal facility.

#### **6.4.4.3 Floods**

The facility and surrounding area are not located within the 100-year flood plain.

#### **6.4.5 Prevention of Recurrence or Spread of Fires, Explosions or Releases [COMAR 26.13.05.04G(5)]**

Actions that are initiated to prevent the recurrence or spread of fires, explosions or releases, include stopping processes and operations, and containing and collecting released waste. In addition, if the facility stops operations in response to an emergency, on site personnel will ensure valves, pipes, and other equipment are turned off and secured before evacuating.

#### **6.4.6 Storage and Treatment of Released Material [COMAR 26.13.05.04G(7)]**

Immediately after an emergency, the Emergency Coordinator will make arrangements for storage and disposal of recovered waste, contaminated soil, surface water, or any other contaminated materials and decontamination materials.

#### **6.4.7 Post-Emergency Equipment Maintenance [COMAR 26.13.05.04G(8)(b)]**

After an emergency event, all emergency equipment listed in section G-5 will be decontaminated (surface PCB contamination less than 10ug/100cm<sup>2</sup>), so that it is refitted for use or it will be replaced. Before operations are resumed an inspection of all fire and safety equipment will be conducted. The Secretary and other state and local authorities will be notified that post-emergency equipment maintenance has been performed and operations will be resumed.

#### **6.4.8 Containers, Spills and Leakage**

Refer to section 6.4.4 for a discussion of emergency response procedures for container spills and leakage. Spills or leaks from containers will be contained immediately upon being noticed by facility personnel. Cleanup will also be initiated immediately.

#### **6.4.9 Tank Spills and Leakage**

Spills or leakage from tanks will be contained immediately upon being noticed by facility personnel. Cleanup of spills from aboveground tanks will begin immediately (no more than 2 hours after first notice). Refer to Section 4.0 for a discussion of tank secondary containment, spills and leakage, and emergency response procedures.

### 6.5 Emergency Equipment [COMAR 26.13.05.04C(5)]

Equipment for use in containing and cleaning up spilled hazardous wastes is stored in the warehouse. A general list of equipment and materials stored and maintained in the warehouse is listed in Figure 5-1. The locations of emergency response equipment within the PCB Waste Transfer Facility are shown in Figure 6-3. First aid supplies at the first aid station include the following:

- Bandage materials
- Band aids
- Gauze pads and rolls
- Adhesive tape
- Butterfly bandages
- Antibacterial ointments
- Splints
- Aspirin
- Emetic - Syrup of Ipecac
- Local and topical anesthetics
- Eyewash bottle and solution and station

Protective clothing is provided to protect employees during normal and emergency operations. Hard hats, protective eyewear, and steel-toed boots or shoes are the minimum protective clothing required. Other protective clothing equipment available on site include:

Clothing	Equipment
<ul style="list-style-type: none"><li>• Plastic aprons and gauntlets</li><li>• Rubber and Neoprene boots</li><li>• Short and long rubber gloves</li><li>• Rain suits</li><li>• Chemical-resistant suits (Tyvek, polyurethane, polyethylene)</li><li>• Polyethylene gloves</li></ul>	<ul style="list-style-type: none"><li>• Face shields, goggles and extra protective eyeglasses</li><li>• Disposable respirators</li></ul>

This equipment is located in the warehouse for easy access by personnel.

The following emergency equipment will be provided in the PCB Waste Storage facility: self-contained eyewash and drench shower (no discharge to sewers) located next to the office, immediately adjacent to the culling area. The entire building, loading dock and truck apron is protected with a preaction sprinkler system. The system will have a pre-alarm safety factor, so that in case a sprinkler head fuses, the sprinkler system will not activate until the smoke detector detects products of combustion. The sprinkler system is fed from a separate connection to the private fire protection water main. The fire alarm system for the PCB Waste Storage facility will be separate from other alarms.

### 6.6 Coordination Agreements [COMAR 26.13.05.03H(1)]

BGE has made the following arrangements to assist in response to emergency situations.

1. A contractual agreement is maintained with a local spill response/disposal company. The contractor is available for a response on a 24-hour basis and must respond within 2 hours.
2. Copies of the contingency plan have been given to the Baltimore County Fire Department and the Maryland Department of the Environment. These agencies have been asked to review and comment on the plan, and to provide a description of the actions they will take in response to any emergency at the BGE facility.



3. BGE plans to continue to work closely with the Baltimore County Fire Department and Hazardous Material Emergency Response Unit, as well as other appropriate organizations, to familiarize them with the PCB waste activities at the facility, and the potential emergency support that may be needed during a site emergency. BGE has agreed to work through the Fire Department for other agreements with hospitals, and other emergency coordination. (see *Appendix J* for copies of correspondence concerning agreements with the Baltimore County Fire Department for emergency response coordination, in the event of an incident at RBC)

The following organizations have been sent copies of the contingency plan:

Baltimore County Fire Department  
Maryland Department of the Environment

#### 6.7 Evacuation Plan [COMAR 26.13.05.04C(6)]

All emergencies require prompt and deliberate action. In the event of any major emergency, it will be necessary to follow the established set of existing procedures set forth in this Contingency Plan for the BGE RBC complex. These established procedures will be followed as closely as possible; however, in specific emergency situations, the Emergency Coordinator may deviate from the procedures to provide a more effective plan for bringing the situation under control. The Emergency Coordinator is responsible for determining which emergency situations require plant evacuation. The hazardous material emergency response unit chief will be responsible for evacuation of off-site personnel.

The facility employs a warning system with a specific alarm signal to initiate evacuation of all plant areas. In addition to automatic fire alarm the internal telephone system is used to notify key facility personnel as to the nature of the emergency and recommended plan of action. Total facility evacuation is initiated only by an Emergency Coordinator.

The fire alarm system is installed with alarm boxes located at critical areas throughout the RBC complex. The fire alarms can also be used to summon aid in other emergency situations. All facility employees should be familiar with alarm box locations.

---

In the event plant evacuation is called for by the Emergency Coordinator, the following actions will be taken:

1. The signal for plant evacuation will be activated.
2. The guards will immediately open the gates. No further entry of visitors, contractors, or trucks will be permitted. All vehicle traffic within the plant will cease to allow safe exit of personnel and movement of emergency equipment.
3. All personnel, visitors, and contractors will immediately leave through the exit gate.
4. No persons shall remain or re-enter the location unless specifically authorized by the Emergency Coordinator or the County Emergency Response Team site director. In allowing this, the person in charge assumes responsibility for those persons within the perimeter. Those within the fenced area will normally only include local fire units personnel or emergency response teams.
5. All persons will be accounted for by their immediate supervisors. Supervisors will designate certain gates as the safest exits for his or her employees and will also choose an alternate exit if the first choice is inaccessible. To assist in this endeavor, the Emergency Coordinator will use the internal telephone system to call the area

- supervisor, or send a messenger if the telephone system is inoperative, to inform him or her of the nature of the emergency.
6. During exit, the supervisor should try to keep his or her group together. Rally points for employees are shown in Figure 6-1. Immediately upon assembly at the rally point, the supervisor will prepare a check-off list of all personnel present. All other personnel who have persons reporting to them should report immediately to the appropriate rally point.
  7. Upon completion of the employee check-off list, the supervisor will hand-carry the list to the Emergency Coordinator. All other personnel will remain at the appropriate rally point.
  8. Contract personnel should also be listed with the name of their company. Contract foremen should report to the designated rally point.
  9. The names of affected personnel involved in emergency response will be reported, in writing, to appropriate section supervisors.
  10. A final tally of persons will be made by the Emergency Coordinator.
  11. No Company personnel will re-enter evacuated areas to attempt to find employees who are unaccounted for. County emergency response units, only, will attempt rescue efforts.
  12. Security personnel at each gate will also maintain an updated list of all personnel to aid in the accountability procedure.
  13. Re-entry into the fenced area will be made only after clearance is given by the Emergency Coordinator. At his direction, a signal or other notification will be given for re-entry into the plant.
  14. In all questions of accountability, immediate supervisors will be held responsible for those persons reporting to them. Visitors will be the responsibility of those employees they are seeing. Contractors are the responsibility of those persons administering the individual contracts. Truck drivers are the responsibility of the warehouse supervisor or the area supervisor where the truck is loading/unloading. The guards will aid in accounting for visitors, contractors, and truckers by reference to the sign-in sheets.
  15. Drills are held annually to practice all of these procedures and are treated with the same seriousness as an actual emergency.

#### 6.8 Required Reports [COMAR 26.13.05.04G(10)]

As required by COMAR 26.13.05.04G(10), any emergency event (e.g. fire, explosion, etc.) that requires implementing this Contingency Plan will be reported in writing within 15 days to the Secretary. This report will include the following information:

1. Name, address and telephone number of the owner/operator of the facility;
2. Name, address and telephone number of the facility;
3. The date, time and type of incident;
4. Name and quantity of materials involved;
5. The extent of injuries, if any;
6. An assessment of actual or potential hazards to human health or the environment, where applicable; and
7. Estimated quantity and disposition of the recovered material that resulted from the incident.

In addition to these reporting requirements for state and federal authorities, Baltimore Gas and Electric also has internal reporting requirements. The following incidents require that an incident report shall be

completed and forwarded to the Environmental Management Unit within twenty-one (21) working days and made part of the operating record:

1. All fires
2. All liquid spills

The following incidents require that an incident report be completed and forwarded to the appropriate sections within established reporting time frame:

1. All injuries except minor cuts and bruises - (all burns and chemical irritations) - Medical & Safety Services and respective department management
2. All equipment damage due to malfunction or operating error - respective department management.
3. All "near misses" of the above variety that could have had serious consequences - Medical & Safety Services and respective department management.

#### REVIEW AND AMENDMENT OF PLAN

The contingency plan will be reviewed and immediately amended, and submitted to MDE for approval, if necessary, whenever:

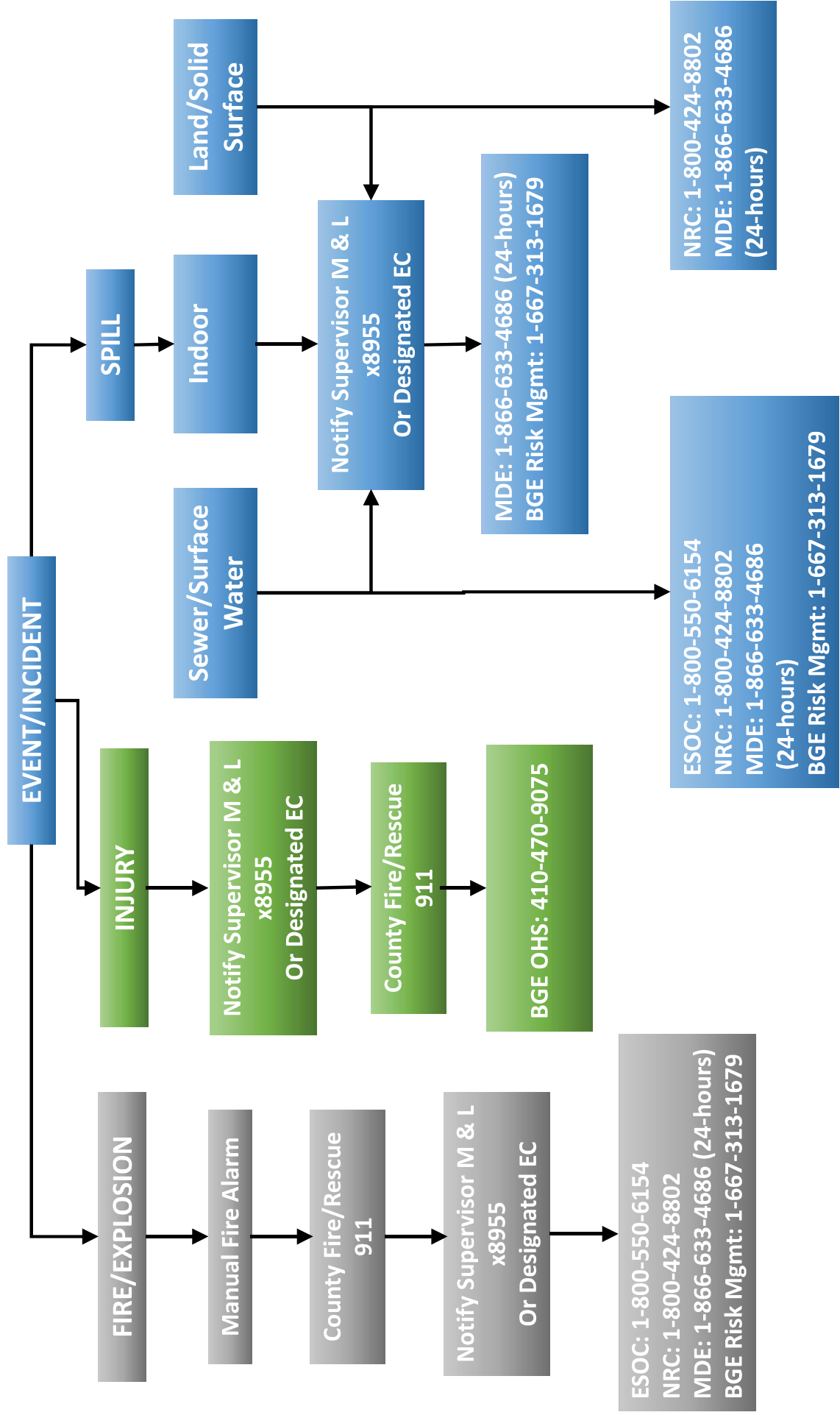
1. The facility permit is revised
2. The plan fails in an emergency
3. The facility changes in its design, construction, operation, maintenance, or other circumstances in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes in the response necessary in any emergency.
4. The list of emergency coordinators changes.
5. The list of emergency equipment changes.

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**FIGURE 6-1**

**Emergency Notification Chart**

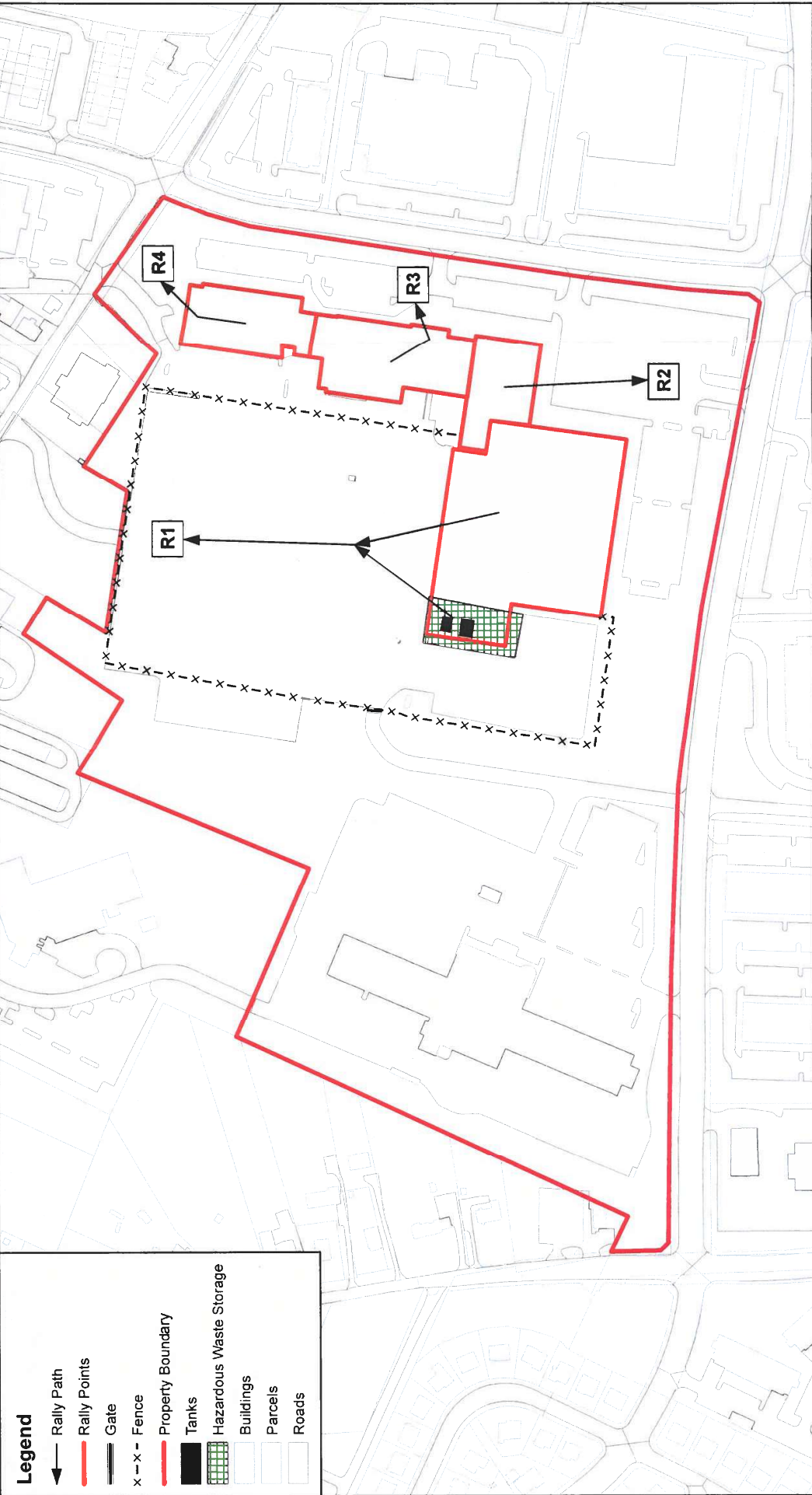
# Emergency Notification Chart



- EC: Emergency Coordinator
- ESOC: Excelon Security Operations Center
- MDE: Maryland Department of the Environment
- M&L: Materials and Logistics
- NRC: National Response Center
- OHS: Occupational Health Services

**FIGURE 6-2**

**Rally Points**



**Legend**

- ← Rally Path
- Rally Points
- Gate
- x-x-x-x Fence
- Property Boundary
- Tanks
- Hazardous Waste Storage
- Buildings
- Parcels
- Roads



**KCI**  
TECHNOLOGIES

KCI Technologies, Inc.  
936 Ridgebrook Road  
Sparks, MD 21152

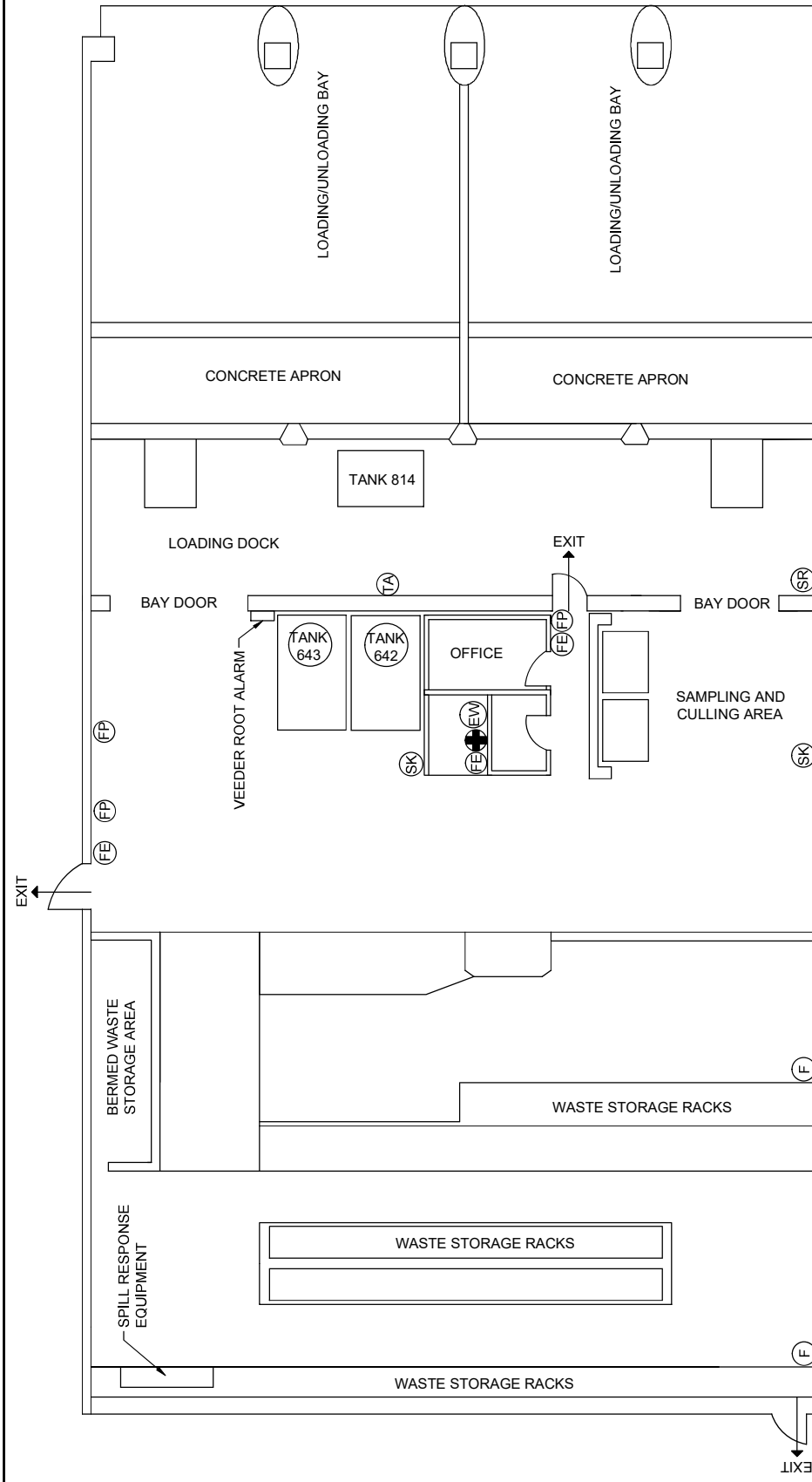
Date: 3/22/2018

**FIGURE 6-2**  
**RALLY POINTS**  
RUTHERFORD BUSINESS CENTER  
PCB WASTE STORAGE FACILITY  
2900 LORD BALTIMORE DRIVE  
BALTIMORE, MD 21244



**FIGURE 6-3**

**Emergency Response Equipment Locations**



**LEGEND**

- (F) FIRE EXTINGUISHER
- (TA) TANK ALARM
- (FE) FIRE EXIT
- (FP) FIRE ALARM PULL
- (SK) SPILL KIT
- (EW) EYE WASH
- (SR) SPILL RESPONSE MATERIAL
- (+) FIRST AID



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**FIGURE 6-3**  
**EMERGENCY RESPONSE EQUIPMENT LOCATIONS**  
 RUTHERFORD BUSINESS CENTER  
 PCB WASTE STORAGE FACILITY  
 2900 LORD BALTIMORE DRIVE  
 BALTIMORE, MD 21244

DRAWING

# APPENDIX G

## Oil and PCB Spill Response Procedures (EWP 220-1)

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An Exelon Company

## J220-1 Oil and PCB Spill Response

**BGE Technical Procedure**  
**XX-BE-XXXX**  
**Rev. 0**

<b>Effective:</b>	8/25/2015
<b>Supersedes:</b>	N/A
<b>Review Type:</b>	3 Year
<b>Core Function:</b>	Environmental Strategy & Compliance

EWP 220-1	Section:	Emergency Processes
	Subsection:	Spills
Page 2 of 54	Subject:	Spill Response Procedures



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	<b>ENVIRONMENTAL WORK PROCEDURES</b>	Source: S. Fuchsluger	Version Date: 8/25/2015
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Section:	<b>Emergency Processes</b>	<b>EWP 220-</b>
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**I. SCOPE**

**THIS WORK PROCEDURE SERVES TO INSTRUCT AND GUIDE FIELD PERSONNEL OF THE PROPER AND SAFE PROCEDURAL STEPS TO FOLLOW WHEN RESPONDING TO OIL AND UNKNOWN PCB OIL SPILLS.**

It is BGE's objective to meet all environmental requirements. This includes the proper cleanup of oil and unknown PCB oil spills. State law prohibits the discharge and spilling of oil into or in a manner likely to pollute waters of the state. This work procedure outlines procedural steps for BGE employees to use to ensure prompt control, containment, and removal of released oil. It is maintained in the BGE Safety Manual on the Safety First website.

**II. DEFINITIONS**

<b>SPILLS</b>		
	<b>Spill</b>	Means both intentional and unintentional spills, leaks, and other uncontrolled discharges where the release results in any quantity of oil running off or about to run off the external surface of the equipment or other container with oil, as well as the contamination resulting from those releases.
1.	<b>Oil</b>	Any kind of oil including petroleum, fuel oil, sludge containing oil, oil residue, etc.; examples include gasoline, light and heavy fuel oils, diesel fuel, hydraulic fluid, insulating fluid, mineral oil, and motor oil.
2.	<b>Fire Related Incident</b>	Any incident involving a piece of electrical equipment with unknown PCB concentration or 500 ppm or more PCB which results in sufficient heat or pressure to cause a violent or non-violent rupture of the vessel and the potential release of PCBs. Refer to EWP 210-1 for requirements.
<b>CLEANUP</b>		
3.	<b>Spill Area</b>	An area including all visible traces (add an additional one-foot buffer to visible traces for unknown PCB spills and known spills 50 ppm PCB or more)
4.	<b>Double-Wash and Rinse</b>	Is the minimum requirement to clean solid surfaces (impervious and non-impervious) contaminated with unknown PCB spills and known spills 50 ppm PCB or more; an appropriate solvent and sufficient volume shall be used.
5.	<b>Impervious Solid Surfaces</b>	A non-porous solid surface that is unlikely to absorb spilled PCB within the short period of time required to cleanup spills (metals, glass, aluminum siding, enamels, laminated surfaces)
6.	<b>Non-Impervious Solid Surfaces</b>	Porous solid surfaces that are likely to absorb spilled PCBs prior to cleanup completion (wood, concrete, asphalt, plasterboard)
<b>PCB</b>		
7.	<b>PCB</b>	Polychlorinated biphenyls (PCB) are a mixture of synthetic organic chemicals that range from oily liquids to waxy solids. Characteristics of PCB have resulted in it being used in hundreds of industrial and commercial applications. They are non-flammable, chemically stable, an electric insulator, and have a high boiling point. Uses include heat-transfer, hydraulic equipment, plasticizers in paints, plastics, rubber products, pigments, and dyes. Over 1.5 billion pounds of PCB were manufactured in the US between 1927 and 1977, prior to its prohibition. EPA has specific requirements for cleanup and disposal of oil that contains 50 ppm or more PCB.
8.	<b>Non-PCB Oil</b>	Oil that contains less than 50 ppm (parts per million) PCBs
9.	<b>Low-Concentration</b>	50 to 499 ppm PCB; also, referred to as PCB-contaminated oil

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10.	<b>High-Concentration</b>	500 ppm or more PCB; also, referred to as PCB oil
11.	<b>Unknown PCB Oil</b>	Oil in electrical equipment manufactured before July 1979 that has not been tested for PCB. During spill cleanup and transportation, oil, equipment, and debris are treated as 50 to 499 ppm PCB.
<b>LOCATIONS</b>		
12.	<b>Residential or Commercial Areas</b>	Residential areas are where people reside other than farming or manufacturing areas (housing and property, playgrounds, parks, sidewalks). Commercial areas are accessible to both employees and the general public (stores, office buildings, transportation centers, institutional properties).
13.	<b>Other Restricted Access Areas</b>	Areas other than electric substations that are greater than 328 feet from a residential or commercial area and limited by man-made barriers (fences) or substantially limited by natural barriers such as mountains or cliffs.
14.	<b>Industrial Buildings</b>	A building directly used in manufacturing or other productive enterprise, generally accessible only to workers
15.	<b>Non-Restricted Access</b>	Areas other than restricted access, outdoor electric substations, and other restricted access areas. In addition to residential and commercial areas, these areas include unrestricted access rural areas (areas of low density development or populated where access is uncontrolled by either man-made or naturally occurring barriers such as rough terrain, mountains, or cliffs).
16.	<b>Sensitive Areas</b>	Vegetable garden or crop/grazing land, waters of the State, drinking water, or sanitary sewer systems.
17.	<b>Waters of the State</b>	Surface and ground water, ponds, lakes, rivers, streams, public/tax ditches, public drainage systems, and storm drains. It does <u>not</u> include sanitary sewer.
<b>SURFACES</b>		
18.	<b>Low Contact Residential &amp; Commercial Surfaces</b>	Include interior ceilings and wall areas above six feet, roofs, asphalt roadways, concrete pads, unmanned machinery, curbing, exterior building components and pipes.
19.	<b>Low Contact Industrial Surfaces</b>	Includes ceilings, walls, floors, roofs, roadways and sidewalks, utility poles, unmanned machinery, curbing, concrete pads, exterior building components, indoor vaults, and pipes in the industrial area.
20.	<b>High Contact Industrial Surfaces</b>	A surface in an industrial setting that is repeatedly touched. Manned machinery and control panels are examples and are usually impervious solid surfaces.
21.	<b>Standard Wipe Test</b>	A test used to verify that solid surfaces have been cleaned to the required EPA PCB spill cleanup criteria. A standard-size template (10 cm x 10 cm) is used to delineate the sample area; the wiping medium is a gauze pad or glass wool of known size that is saturated with hexane. Wipe test results of 10µ/100 sq. cm are similar to 50 ppm PCB (liquid). Wipe test results of 100µ/100 sq. cm are similar to 500 ppm PCB (liquid).
<b>SPCC</b>		
22.	<b>SPCC</b>	Spill Prevention, Control, and Countermeasure plan – required for facilities with 1320 gal or more of oil storage capacity (containers with 55 gal or more including electrical equipment).
23.	<b>Oil Handler</b>	Persons that handle oil or are involved with oil storage containers, equipment, transfer oil, or emergency response at facilities with SPCC plans.

### III. PROCESS OVERVIEW

See Section XI for process flowcharts that describe job roles and responsibilities. Following these processes are important to ensuring business units meet the regulatory requirements including agency notification, EPA PCB spill cleanup criteria, and cleanup documentation. The overviews cover at a high level what is covered in Sections V to VII.

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#### IV. SAFETY

**PRIOR TO STARTING WORK AND DURING THE PLANNING PROCESS, THE JOB SITE SUPERVISOR SHALL CONDUCT A JOB BRIEFING. THE JOB BRIEFING SHALL INCLUDE PPE REQUIREMENTS AND A RISK ASSESSMENT TO IDENTIFY POTENTIAL HAZARDS AND RISKS AND DETERMINE METHODS TO MITIGATE THESE HAZARDS AND RISKS.**

- 1. Job Briefing (REFER TO AND FOLLOW THE BGE SAFETY MANUAL, WORK PROCEDURE SECTION VI B. RISK ASSESSMENT PROCEDURE FOR INFORMATION.)**
- 2. Personal Protective Equipment (REFER TO AND FOLLOW THE BGE SAFETY MANUAL, WORK PROCEDURE SECTION IX A. PERSONAL PROTECTIVE EQUIPMENT FOR INFORMATION.)**

Medical research has concluded that PCBs might cause cancer in human beings. This section outlines federal requirements that employees shall follow when cleaning up unknown and PCB-contaminated oil spills. Substances that might have a chronic toxic effect on humans shall first enter the body. There are three routes of entry: inhalation of vapor, absorption through the skin, and ingestion. The work practice below control and prevent entry of PCBs into the body.

Pre July 1979 electrical equipment might contain PCB. This was prior to the EPA prohibiting its use. BGE has removed known PCB equipment from its electric system including certain capacitors and transformers. Older equipment when tested is primarily non-PCB but some is PCB-contaminated. On rare occasions, older equipment is found to be 500 ppm or more. At electrical substations, BGE has tested and flushed as needed certain equipment such as power transformers and OCBs so they are non PCB. Certain pre-July-1979 substation equipment is considered unknown PCB such as transformer and OCB bushings, station service and potential transformers, and coupling capacitor voltage transformers.

Though the BGE gas system is typically dry, gas pipe with liquid might contain PCB and a liquid release shall be handled as unknown according to this procedure. The PCB pipe program addresses pipe disposal and abandonment issues.

##### **General Precautions**

- 1. Avoid skin and eye contact with PCBs**
- 2. Avoid activities that splash or spread PCB liquids**
- 3. Smoking, drinking, and eating is prohibited in the work areas that contain PCBs; clean hands with hand cleaner before smoking, drinking, and eating**
- 4. Clean contaminated tools and equipment with Simple Green or equivalent cleaner before removing them from the work area**

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### Eye and Respiratory Protection

1. Wear goggles when handling PCB liquid
2. Avoid breathing vapor and smoke when working around electrical equipment where a fault or fire has occurred; faults can produce irritating and toxic gases and fires combustion products (see EWP 210-1)
3. Ventilation of the work area is the preferred method of reducing airborne levels of PCBs rather than respiratory protection

### Protective Clothing

#### **WARNING**

**NEVER WEAR TYVEK COVERALLS OR NITRILE GLOVES IN THE ENERGIZED ZONE WHERE A FLASH COULD OCCUR.**

1. Wear Nitrile gloves and disposable FR coveralls during cleanup whenever PCB fluids or waste material are directly handled; see Table 3 (Section XII) for a list of materials.
2. Wear disposable shoe-covers or rubber boots whenever working in cleanup area and remove them before leaving this area; goal is to keep contaminants contained to the cleanup area and not track them beyond this area
3. If the liquid penetrates the protective clothing, remove the clothing as soon as practical; if it has reached the skin, clean the affected area with waterless hand cleaner and wipe dry with disposable towels. The employee should report an incident to Safety & Industrial Hygiene if a rash of acne appears in the area that contacted PCBs.
4. Rubber insulating goods (sleeves, gloves) contaminated with oil shall be wiped clean with solvent and rags and washed with soap and water at the site
5. Personal clothing with minor contamination may be cleaned with a solvent and laundered at home

#### **NOTICE**

**THE SOLVENT, TOWELS, AND RAGS USED TO CLEAN CONTAMINATED ITEMS SHALL BE DISCARDED WITH CONTAMINATED DEBRIS.**

### First Aid

In every case stated below, seek medical attention if irritation develops or persists. Employees developing a skin rash or other symptoms that might have resulted from PCBs shall contact a company physician or physician assistant.

- **Eye Contact** – Flush eye with water for 15 minutes
- **Skin Contact** – Clean exposed area with hand cleaner, then soap and water
- **Inhalation** – Remove to fresh air immediately

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## V. FIRST RESPONSE AND NOTIFICATIONS

### A. General

#### 1. Spill Sources

Oil spills come from a variety of sources including electrical equipment, pipe-type cables, and hydraulic systems on various trucks and digging equipment. Refer to Definitions in Section II for the broad understanding of oil as defined by the State of Maryland.

#### 2. Spill Discovery

When the first BGE employee discovers an oil spill from BGE electric equipment, hydraulic system, etc. this determines the spill discovery time that is used on the BGE Spill Report and for reporting to government agencies.

### B. First Responder

Various BGE employees can act as the first responder to an oil spill depending on the circumstances: service operator, overhead crew leader, distribution transformer tester, splicing crew leader, sr. substation technician, etc. The first responder shall strive to control and contain the spill, and immediately notify appropriate parties so agency notification and spill cleanup can be promptly completed.

#### The first responder shall do the following:

1. Control and contain the spill with absorbent material or build a berm of soil, and attempt to stop the leak (typically, first responders carry a spill kit).
2. Absorb free flowing liquid if any with available absorbent material.
3. Provide spill details to control room system operator, operations supervisor, or your first-line supervisor for your organization as appropriate:
  - a. Quantity of oil spilled (in gallons), e.g., 1 gal, 10 gal, 50 gal or 100 gal, etc.
  - b. PCB concentration, whether non-PCB or unknown (pre July 1979 unlabeled electrical equipment)
  - c. Location of the spill and what it affected
    - i. Contained on land or entered waters of the state? If it entered waters of the state, estimate the quantity of oil that entered the water.
    - ii. Did oil of unknown PCB concentration contact a sensitive area: grazing or crop land, a vegetable garden, waters of the state, drinking water, or sanitary sewer system?
4. Provide other important information related to the event:
  - a. Was the equipment on fire or smoking (see EWP 210-1 for additional agency notification requirements and response)?
  - b. Was a customer, media representative, or regulatory official at the site?
  - c. Was customer's property affected (e.g., automobile, home, pool, etc.)?

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- d. Was a commercial or industrial customer affected?
5. Standby the spill site until the appropriate cleanup crew arrives when there is danger to the public either from the slippery conditions or unknown PCB concentration (assess the likelihood of adults or children entering the spill area; if you can make the situation safe, standby is not required).
6. **Oil spills need to be controlled, contained, and immediately cleaned up.** On weekends, cleanup of a small non-PCB spill where the leak has stopped might be able to wait until the next business day. **Criteria:** equipment maintenance can be deferred for a non-PCB spill if it can be cleaned up within 48 hours of discovery, there are no wet spots or puddles, only stains exist, rain is not forecasted, and the area is safe to the public.

### C. Agency Notification

1. Regulations require the party responsible for an oil spill (the one who owns the oil-filled equipment or vessel) to **immediately notify** certain government agencies in certain situations. See Table 1 – Agency Notification and Documentation (Section XII) for required notifications and contact information. Important considerations include:
  - a. When agency notification is required, strive to make notification immediately but **always within two hours** of spill discovery.
  - b. See Figure 1 or 2 Process Flowchart *Oil Spill Notification and Cleanup* in Section XI for details of who is responsible for the agency notifications.
  - c. State regulations require *passive participants* to ensure oil spills are promptly reported to MDE. For example, if a contractor working for BGE has a hydraulic line break on a backhoe and spills 10 gallons of fluid, the BGE representative is required, when he/she has knowledge of the equipment failure and/or the spill, to ensure the contractor promptly notifies MDE and cleans up the spill (see Section IX B).
2. **When making agency notifications, be prepared to provide the following information:**
  - a. time, date, and location of spill
  - b. your name, title, and telephone number
  - c. whether land or water was affected by spill
  - d. type of oil spilled (mineral oil, insulating fluid, etc.; if non-PCB or unknown)
  - e. type of equipment or container involved
  - f. amount of fluid spilled and area involved
  - g. objects contaminated by spill
3. BGE shall complete and submit to MDE a spill report for every spill that BGE notifies the agency by phone (except passive participant example in #1 c. above). **The written report process is explained in Section VII, Job Closeout and Reporting.**

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#### D. Notification of Business Units for Assistance

In IFS, the service operator or sr. shift substation technician typically acts as the first responder to a spill. The service center support team or lead substation technician notifies appropriate groups for assistance during standard business hours and the control room shift supervisor does it during non-standard business hours. See Section X for contact phone numbers.

##### 1. Strategic Customer Engineering and Business Account Services

If a commercial or industrial customer is at the scene or there is a fire involving customer-owned equipment, contact Strategic Customer Engineering or Business Account Services during standard business hours.

##### 2. Customer Relations-New Business & High Bills

If a residential or small commercial customer is at the scene or there is property damage as a result of the spill, contact Customer Relations-New Business & High Bills during standard business hours.

##### 3. Corporate Communications and Media Relations

If the media is at the scene, contact Communications - BGE.

##### 4. Regulatory Official or PCB Contacts a Sensitive Area

If a regulatory official is at the scene or oil tests 50 ppm or more PCB and contacted a sensitive area, contact the BGE Environmental Management Unit.

##### 5. Immediate Notification of Cleanup Vendor


If oil enters a storm drain or waterway in more than trace amounts, the control room shift supervisor or system operator and/or Distribution Construction Supervisor or lead maintenance mechanic shall immediately contact MDE (Agency Notification, Section C) as well as obtain information from MDE on where the oil will exit the storm drain system. In addition, immediately notify a spill cleanup vendor to expedite control and containment of the spill and advise the vendor of where the oil will exit the system.

## VI. CLEANUP, DISPOSAL AND DOCUMENTATION

This section breaks down the cleanup requirements by type of spill: non-PCB spills, unknown spills, and unknown spills determined to be 50 ppm PCB or more. The key requirements of this section include:

- Start the cleanup as soon as possible and complete it within 48 hours of spill discovery
- Transport cleanup debris to the proper facility and dispose of it in an approved manner
- Complete a BGE Spill Report for incidents according to Table 1 (Section XII)
- When an unknown spill is determined to be 50 ppm PCB or more and impacts a sensitive area, verify that the cleanup is complete according to the MDE and EPA cleanup criteria; repeat cleanup efforts until required verification satisfies the cleanup criteria (See note C in Table 1, Section XII)

#### A. General Cleanup Considerations

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1. **Cleanup Vendor** – An approved spill cleanup vendor may be used to assist BGE with oil spill cleanups. See Table 4, Section XII for the approved vendor list. Regardless, BGE maintains full responsibility for proper cleanup of its spills, agency notification, and completion of spill reports. Typically, vendor response time is 1-2 hours. Spill cleanup debris must be discarded at an Exelon approved disposal facility. Contact EMU for assistance if needed.
2. **Unknown Spills** – When dealing with electrical equipment, the oil/compound is either non-PCB (blue label on the transformer, switchgear, or capacitor tank, or hydraulic fluid) or unknown (electrical equipment is pre July 1979 and unlabeled). For oil/compound of unknown PCB concentration, handle and cleanup it as PCB-contaminated debris (**50 ppm to 499 ppm PCB**) until tested and known otherwise.
3. **Leaving the Spill Site** – When in Harford County, the crew leader shall notify Harford County Emergency Operations (**see Table 1, Section XII**) if crew must leave the spill site before cleanup is completed including leaving prior to arrival of the spill cleanup vendor when used. This notification **does not apply** to the service operator unless hydraulic fluid or motor oil has leaked from his vehicle.
4. **Return Visit** – When a cleanup is performed in the dark and/or during inclement weather, the crew shall note on the top of the BGE Spill Report that a return visit is required the next business day during daylight to verify that the cleanup was completed. The field supervisor shall arrange the return visit.
5. **Verify Amount Spilled** – When the spill amount or boundary is uncertain, the crew should note on the top of the BGE Spill Report for EDRU to check the amount of oil remaining in the equipment. For example, check this for spills that occur during inclement weather, or enter a storm drain or waterway. The field supervisor shall arrange this check.
6. **Spill Cards and List of Cleanup Materials** – The Quick Reference Spill Cards are in Section XI. The first card is for oil and unknown PCB oil spills. The second (2<sup>nd</sup>) card is for substation spills. **A list of cleanup materials is in Table 3, Section XII.**

**B. Non-PCB Spills**

1. **Stop Leak And Contain Spill** – Stop the flow of the oil. Confine the spill to the immediate area by using absorbent. Prevent fluids from entering storm drains, drainage ditches, and waterways.
2. **Complete Cleanup Within 48 Hours** – Initiate cleanup as soon as practical and complete it within 48 hours of spill discovery.
3. **Remove And Bag Leaking Equipment** – Remove leaking equipment from service. Place equipment in a plastic yellow bag, and then in a spill tray. The plastic bag is for containing the released oil, not the spill tray.
4. **Determine The Spill Boundary** – Look for evidence of oil entering a storm drain or waterway. If so, request service center support team, shift supervisor, or lead

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maintenance mechanic to promptly notify government agencies if not already done.

5. **Remove Visibly Stained Soil And Vegetation** – Remove all visibly stained soil and backfill with clean soil. Remove visibly stained vegetation.
6. **Wash And Rinse Solid Surfaces** – Wash and rinse solid surfaces using a detergent-based cleaner like Simple Green until visible traces are removed.
  - Do not use mineral spirits on asphalt and macadam.
  - For items with a delicate finish (automobiles) use a mild solvent (diluted detergent or citrus cleaner) and remove promptly. Document details in the BGE Spill Report.
7. **Place Debris In Drums** – Place cleanup debris, oil, and contaminated material in approved storage drums:
  - Place contaminated soil, vegetation, and rags in 55-gallon drum with removable head for solids. Disposable garments may be discarded in the same drum.
  - Place oil into 55-gallon drum with oil-resistant gasket in head for liquids.
  - Fill each drum within two inches of the top before proceeding to fill the next drum with spill material.
8. **Label Storage Drums** – A Waste Identification Label is required on each drum with spill cleanup debris.
  - Affix a completed *Waste Identification label* (see Figure 4 in Section XIV) on the upper-third of the drum but not on the lid. Enter the spill site address for Facility/Dept. followed by service center name and department number. For the drum number, enter the unique incident number from the BGE Spill Report (upper left-hand corner) followed by -01, -02, -03, etc. Check off the materials that are in each drum, e.g., oil and soil/debris, and the “Filled” date.
9. **Clean Tools And Equipment** – Clean contaminated equipment and tools with Simple Green or equivalent cleaner and rags. Discard rags in one of the drums with cleanup debris.
10. **Transportation** – Small volumes (several drums or less) of non-PCB debris shall be transported to the service center and discarded in the covered spoil bin. Be sure there is no free-flowing oil in the soil. If the soil is saturated with oil, add enough absorbent material to absorb the oil. Larger quantities of non-PCB debris should be transported to a landfill or approved disposal site (contact EMU for assistance).
11. **BGE Spill Report** – The job-site supervisor shall complete the BGE Spill Report to document the cleanup and submit it to his supervisor. See Section XIII for a sample report (Exhibit A) and instructions for completing it.
  - Also, complete the spill report even when a vendor performs the cleanup. The cleanup vendor is expected to provide the business area that requested its

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cleanup services with a summary of the cleanup activities performed and the volume of debris removed.

- Use an original preprinted form for each spill event so a unique number is associated with each event. The incident number is the red number in the upper left-hand corner of the form. It is used for oil samples, drum debris identification, etc.

### C. Unknown Spills


**NOTICE**

**IF AN INSULATING FLUID SPILL IS DETERMINED TO BE 500 PPM OR MORE PCB, 50 PPM OR MORE IN A SENSITIVE AREA , OR 270 GALLONS OR MORE OF UNKNOWN PCB, FOLLOW THE ADDITIONAL CLEANUP REQUIREMENTS IN SECTION D.**

1. **Stop Leak And Contain Spill** – Stop the flow of the oil. Confine the spill to the immediate area by using absorbent. Prevent fluids from entering storm drains, drainage ditches, and waterways.
2. **Complete Cleanup Within 48 Hours** – Initiate cleanup as soon as practical and complete it within 48 hours of spill discovery. For spills involving more than 270 gallons of unknown oil, initiate cleanup within 24 hours of discovery (within 48 hours if PCB transformer) and complete it as soon as possible.

**If initiation or completion of the cleanup does not meet the above time limits, call the BGE EMU for guidance. More stringent cleanup requirements and post-cleanup verification might be required.**

3. **PPE** – Employees cleaning up an unknown oil spill shall wear personal protective equipment (see Section IV).
4. **Remove And Bag Leaking Equipment** – Remove leaking equipment from service. Place equipment in a plastic yellow bag, and then place it in a spill tray. Affix a PCB label (Figure 6, Section XIV) to the bag. The plastic bag is to contain the leaking oil, not the tray.
5. **Obtain An Oil Sample** – Obtain an oil sample for analysis to determine the PCB concentration. Place it in an approved sample bottle and attach the Insulating Fluid Spill Tag (Figure 5, Section XIV). If an oil sample cannot be gotten, obtain a contaminated-soil sample or wipe sample from inside the electrical equipment.
  - a. The oil sample shall be placed in a glass sample bottle; fill the bottle
  - b. If a contaminated-soil sample is required, it shall be placed in the small yellow plastic sample bag and the bag shall be completely filled with soil
  - c. Avoid cross contaminating samples; use separate collection devices for each sample
  - d. When there is an oil and water mixture, also obtain a fluid sample from the bottom of containers, vault, etc. since PCBs sink in water

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- e. **Standard Service** – The Chemistry Unit provides analysis results for oil samples within 24 hours of receipt of sample and three days for soil samples. When spill samples are left at the Waste Transfer Facility, Materials Storage & Delivery has them transported to the Chemistry Unit on Monday, Wednesday, and Friday. Typically, this process takes from two to five business days to obtain results. **IMPORTANT: ATTACH AN INSULATING FLUID SPILL TAG TO EVERY SPILL SAMPLE BOTTLE.**
- f. **If the Chemistry Unit is not available**, use an approved laboratory such as Phase Separation Science (see contacts listed below Table 4, Section XII). Standard analysis service for outside laboratories takes 3 to 5 days.
6. **Rush Analysis Option** – Arrange a rush analysis with the Chemistry Unit when extensive customer property is impacted by a spill or it has contacted a sensitive area. Generally, complete the cleanup before delivering the sample. If the sample will be dropped off before transporting the cleanup debris to the Waste Transfer Facility at RBC, do not wait for the results of the rush analysis. Instead, take the cleanup debris and transformer to RBC using the one “free” trip (step # 13).
- Call the 24-hour number for the on-call technician (**Section X**); the Unit will provide results of the analysis within 4 hours of receipt of an oil sample
  - Deliver the rush sample to the Chemistry Unit during standard business hours at the Fort Smallwood Road Complex (2<sup>nd</sup> floor of the shops facility, south-west corner of the building)
  - After standard business hours, arrange a time to meet the technician at the Fort Smallwood Road Complex (i.e., the **Chemistry Sample Drop Box at Gate 37, Solley Rd Entrance next to the badge reader**) and deliver the fluid sample for rush analysis
  - Rush analysis is offered by other approved laboratories too but turnaround time is 24 hours.

Consider use of field test kit for these situations as well. Generally, provides a good indication of PCB concentration. Regardless, clean up as unknown oil.

7. **Determine Spill Boundaries** – Look for evidence of oil entering a storm drain or waterway. If so, request the service center support team, shift supervisor, or lead maintenance mechanic to promptly notify government agencies if not already done. In addition, if there are no visible traces of oil when the spill was discovered, notify the field supervisor. This supervisor shall contact the BGE EMU for guidance on determining the spill boundary. If the release was more than 270 gallons and there were no visible traces, the supervisor shall also notify the EPA Region III; additional cleanup requirements might apply.
8. **Remove All Visible Traces** – Excavate visibly stained soil and vegetation plus one foot beyond visible traces. Backfill spill area with clean soil.
- Remove or trim all visibly contaminated non-edible vegetation

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- For edible vegetation that is visibly contaminated, remove all annuals (tomato plants, corn, lettuce, etc.) and trim or remove the contaminated parts of perennials (fruit trees, grapevines, etc.)
- When spill contacts a vegetable garden or cropland, obtain a post-cleanup soil sample and mark sample bag "post-cleanup sample"; *rush* oil/stained-soil and post-cleanup samples.

**9. Double Wash And Rinse Solid Surfaces** – For spills on solid surfaces (impervious and non-impervious), wash and rinse solid surfaces of the spill area (all visible traces plus one foot buffer) two times with an appropriate solvent of sufficient volume to cover the contaminated surface. Do not splash solvent. Contain runoff and dispose of used solvent/absorbent with the cleanup debris.

a. Typical double wash and rinse process:

- Spread a sufficient amount of solvent to cover the spill area and scrub with a stiff broom to cleanse the surface
- Rinse the area with additional solvent of sufficient quantity and absorb it with clay absorbent; place it in a storage drum
- Repeat this wash and rinse process a second time.

b. For non-bituminous paving (concrete, brick, etc.) wash and rinse the surface with solvent and use an absorbent to soak up the residue. Repeat the wash and rinse process. The removal of paved surfaces is not necessary.

c. For bituminous paving (asphalt, macadam) use Simple Green or equivalent cleaner. Do not use mineral spirits since they degrade this type of paving.

d. For items with a delicate finish (automobiles), double wash and rinse contaminated surface using a mild solvent (diluted detergent or citrus cleaner) and remove solvent promptly. Document details in the BGE Spill Report.

e. For easily replaceable household items (furnishings, toys, etc.) dispose of them. Contact Customer Relations-New Business & High Bills to assist with contacting the property owner about damages as needed.

**10. Place Debris In Drums** – Place cleanup debris, oil, absorbent, and contaminated material in approved storage drums:

- Place contaminated soil, vegetation, and rags in 55-gallon drum with removable head for solids.
- Place oil into 55-gallon drum with oil-resistant gasket in head for liquids.
- Fill each drum within two inches of the top before proceeding to fill the next drum with spill material.
- Discard disposable coveralls, Nitrile gloves, and shoe covers in a plastic yellow bag and place in a separate drum.

**11. Label Storage Drums** – Labels are required on the drums containing spill debris.

- Affix a completed *Waste Identification label* (Figure 4, Section XIV). Enter the spill site address for Facility/Dept. followed by service center name and

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department number. For the drum number, enter the unique incident number from the BGE Spill Report followed by -01, -02, -03, etc.

- b. Affix a *PCB label* with magnetic backing (Figure 6, Section XIV).
- c. Place labels on the upper-third of the drum but not on the lid.

**12. Clean Tools And Equipment** – Double wash and rinse contaminated equipment and tools with Simple Green or equivalent cleaner and rags. Discard rags in the drums with cleanup debris.

**13. Transportation** – Cleanup debris shall be transported to the Waste Transfer Facility at RBC (first bay on the right after entering the Material Storage yard). Before transporting the unknown spill debris:

- Complete the column “Quantity” on the Daily Hazardous Materials List with the number of storage drums (Exhibit C, Section XIV) and use the list as the shipping paper
- Leave the tagged oil sample and store credit at the Waste Transfer Area, RBC on top of one of the storage drums with debris from the spill cleanup. A courier will transport the sample to the Chemistry Unit at the Fort Smallwood Road Complex (it picks up samples from RBC several times a week). Be certain to note the unique incident number (upper left-hand corner of the BGE Spill Report) on the sample tag and credit.

**14. BGE Spill Report** – The job-site supervisor shall complete the BGE Spill Report (Exhibit A, Section XIII) to document the cleanup and submit it to his supervisor.

- Also, complete the spill report when a vendor performs the cleanup. The cleanup vendor is expected to provide the person who requested the service with a summary of the cleanup activities performed and the volume of debris removed.
- Use an original preprinted form for each spill event so a unique number is associated with each event. The incident number is the red number in the upper left-hand corner of the form.

**D. Follow-Up for Spills 50 ppm or More PCB**

Most spills are complete after meeting the requirements of the initial cleanup but sometimes follow-up cleanup and verification are required. This section summarizes the EPA PCB-spill cleanup criteria for completing and verifying the cleanup (see Table 2, Section XII). The job closeout and reporting will be covered in Section VII.

1. **Re-visiting a site** – If sample results indicate cleanup is not complete, the spill site shall be re-visited (within 48-hours) and cleaned again.
2. **Rope off area** – Some spill locations require that we cordon off visible traces plus a 3-foot buffer and hang PCB labels around area to warn the public.
3. **PPE** – Employees cleaning up the spill shall wear personal protective equipment (Section IV).

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4. **Weight of PCBs** – Formula to determine PCB weight referred to in Table 2:  
 $(7.59 \text{ lbs./gal.} \times \text{No. of gal.} \times \text{ppm PCB}) / 1,000,000$   
*Example:*  $(7.59 \text{ lbs./gal.} \times 270 \text{ gal.} \times 490 \text{ ppm PCB}) / 1,000,000 = 1 \text{ lb. PCB}$
5. **Verifying Cleanup** – When statistical sampling is required to verify the soil and/or solid surface cleanup, contact the BGE EMU to oversee this activity. For example, BGE shall remove all oil and verify the removal of all PCB when oil tests 50 ppm or more PCB and contacts or enters a sensitive area.
6. **Wash And Rinse Solid Surfaces** – Wash and rinse contaminated solid surfaces to meet EPA PCB-spill cleanup criteria (Table 2, Section XII). Use an appropriate solvent like Simple Green or a detergent- or citrus-based cleaner of sufficient volume to cover the area. Do not splash solvent. Contain runoff and dispose of solvent/absorbent with cleanup debris.
7. **Determine Spill Boundaries** – If there were no visible traces of oil when the spill was discovered, notify your supervisor. Typically, statistical sampling is required to determine the spill boundary. In addition, see Table 2, Section XII for incidents where EPA cleanup guidance should be sought.
8. **Place Debris In Drums** - Place cleanup debris, oil, absorbent, and contaminated Material in Approved Storage Drums.
9. **Label storage drums** – All cleanup debris is treated at the original PCB concentration of the oil; therefore, it is treated as hazardous waste. Labels are required on drums containing spill debris.
  - Affix a completed *Waste Identification label*, a *PCB label*, and a completed *Hazardous Waste label* (Figures 6 and 7, Section XIV) on the upper-third of the drum; do not place them on the lid.
  - Enter the RBC EPA ID No. 980832067 on the Hazardous Waste Label for debris shipped from the spill site to RBC.
10. **Clean tools and equipment** – Double wash and rinse contaminated equipment and tools with Simple Green or equivalent cleaner and rags. Discard rags in the drums with cleanup debris.
11. **Transportation** – A Hazardous Waste Manifest and a CHS (Controlled Hazardous Substance) certified hauler, driver, and vehicle are required to transport the PCB contaminated oil and cleanup debris to the Waste Transfer Area at RBC.
  - Call Materials Delivery to obtain a certified hauler, vehicle, and driver. Materials Delivery's contact information is in Section X.
  - Complete a Hazardous Waste Manifest, Restricted Waste Notification, and PCB Waste Shipment Inventory Form (see Exhibits D to F, Section XIV for instructions and sample forms); also, attach a copy of the Chemistry Unit's Certificate of Analysis.
12. **BGE Spill Report** – The job-site supervisor shall complete the **BGE Spill Report (Exhibit A, Section XIII)** to document the cleanup and submit it to his supervisor.


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## VII. JOB CLOSEOUT AND REPORTING

### A. Process

1. **Oil Spill Reporting and Cleanup Verification** – Follow Figure 3 Process Flowchart (Section XI) after the initial cleanup is completed. Roles and responsibilities are specified to ensure proper reporting both internally and externally, and verification of the cleanup when required. Certain spills 50 ppm or more PCB require additional cleanup and verification.
2. **BGE Spill Report** – This report shall be completed as required in Table 1 (Section XII). For example, document all spill events that are ½ gallon or more. Report shall accurately reflect spill details, what was done to clean up the spill, and where the debris was taken. The supervisor is to ensure the report is properly completed and the manager/director is to approve the final report. When a vendor assists with the cleanup, the BGE supervisor shall ensure a report is completed. Always use the most current version of the report.
  - Certain smaller spills do not require a spill report. For example, a non-PCB spill of less than ½ gal that did not enter water nor was likely to do so, does not require a spill report. Follow Table 1.
  - All unknown PCB spills require a spill report to document the initial cleanup but certain smaller ones (< ½ gal), if they test non-PCB, do not need to be completed beyond the crew leader's initial report of cleanup. For example, an unknown spill that tested non-PCB, was less than ½ gal, and did not enter water nor was likely to do so, can be labeled as "**Partial Report**". Write this notation at top of the spill report and attach the Certificate of Analysis report.
3. **MDE Spill Report** – Typically, the corporate spill database (next) shall be used to generate this report (see Exhibit B, Section XIII for sample). When BGE notifies MDE of a spill as required in Table 1 of Section XII, mail this report to MDE within 10 business days of completing the spill cleanup. Previously, this report was hand-written.
4. **Corporate Spill Database** – The environmental coordinator (EC) shall promptly start the spill event in the corporate spill database (via Citrix). Spill events must be reported in the month they occur and no later than seven calendar days from spill discovery date.
  - Go to BGE EMU web page for a list of ECs.
  - The EC shall complete the spill record as information is available.
  - Records, with a discovery date in the prior month or earlier, will lock on the 7<sup>th</sup> day of each month. Contact EMU to unlock a record.
5. **Spills on BGE Property** – Oil spills on BGE property that are ½ gal or more on land or any quantity that enters waters of the state shall be documented on a BGE Spill Report and submitted to EMU within 10 days of completing the spill cleanup. In addition, when more than 1000 gal enter water or 42 gal or more enter water in two separate incidents at a facility within a 12-month period, EMU shall prepare

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and submit, with assistance from the operating area, written reports to MDE and EPA within 60 days of the incident. This is a SPCC (spill prevention, control and countermeasure) reporting requirement.

6. **Unknown Spills** – Spills from electrical equipment shall be analyzed for PCB concentration when the PCB concentration is unknown. If analysis determines oil to be less than 50 ppm PCB and the requirements of Section VI were followed during the initial cleanup, the cleanup is completed. If the analysis determines that the oil was 50 ppm or more, the specific details of the spill event shall be considered to determine if additional cleanup and verification are required. The supervisor shall make this determination using Figure 3, Section XI or request assistance from the BGE EMU. The EPA PCB-spill cleanup criteria are summarized in the previous section.
7. **Documentation** – Spill reports serve to record the cleanup of spill events and shall be properly maintained. Periodically internal and external audits will occur to ensure business units are meeting the oil spill and PCB spill notification and cleanup requirements.
8. **Copy Distribution** – The business area responsible for the spill cleanup shall maintain a copy of the paperwork (BGE Spill Report, MDE spill report, Certificate of Analysis, post cleanup sampling and results, manifests, etc.). Go to **BGE EMU web page** for the list of ECs under Spill Tools.

**B. Retention of Documents**

1. The business area responsible for the spill cleanup shall retain the BGE and MDE spill reports and associated paperwork, e.g., Certificate of Analysis, work order, etc., according to the Exelon Environmental Record Retention Schedule on the BGE EMU Web site.

**VIII. SPILLS IN ELECTRIC MANHOLES**

**A. BGE Spill Report**

The job-site supervisor shall complete all sections of the BGE Spill Report as required by Table 1, Section XII. See Exhibit A, Section XIII for instructions and a sample report.

**B. All Oil Spills in Electric Manholes**

1. **Oil spills shall be cleaned up within 48 hours of discovery of the spill.** If the cleanup is delayed, provide the reason for the delay in section 7 of the BGE Spill Report.
2. **Job-site supervisor shall take a sample of oil, attach an Insulating Fluid Spill Tag (Figure 5, Section XIV), and arrange for the Chemistry Unit to analyze the sample for PCB concentration.** For emergency work, **contact the Chemistry Unit's 24-hour phone (Section X.)** to arrange a rush analysis. Approved chemistry laboratories are also available when needed. **See Table 4, Section XII for the approved vendor list.**

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3. Until sample analysis proves that oil is non-PCB, do not pass anything down through the oil, e.g., ladder or pump, and do not pump the water.
4. The supervisor of UG Lines shall notify government agencies, when required, within two hours of discovering the oil spill. (See Table 1, Section XII for required agency notifications and contact information).

**C. Emergency Work, Unknown PCB Concentration**

1. The job-site supervisor shall contact and request a spill cleanup vendor to report to the spill site and pump the water and unknown oil into its tank truck. Also, he shall make arrangements for the vendor to bring its power washer equipment to the site.
2. Sample the oil in the manhole, label the sample with an Insulating Fluid Spill Tag (See Figure 5, Section XIV), and deliver it to the Chemistry Unit at Fort Smallwood Road Complex. Contact the Chemistry Unit's 24-hour phone (Section X.) to arrange the rush analysis.
3. When the oil and water have been removed and the results of the sample analysis have been received, the BGE crew shall use the contractor's power-wash equipment to wash and rinse the manhole, cables, and equipment based on the PCB concentration of the oil. Once the manhole and equipment are clean, the BGE crew shall begin its restoration work.
  - a. When statistical sampling is required to verify the soil and/or solid surface cleanup, contact the BGE EMU to oversee this activity. For example, BGE shall remove all oil and verify the removal of all PCB when oil tests 50 ppm or more PCB and contacts or enters a sensitive area. (See Table 2, Section XII).
  - b. The crew shall wash and rinse the manhole and equipment to remove visible stains when the oil is less than 50 ppm PCB; and, double wash and rinse the manhole and equipment when the oil is 50 ppm or more PCB
  - c. During the wash and rinse process, the crew shall wear appropriate personal protective equipment (FR raincoat, rubber boots, face shield or goggles, etc.).
  - d. The cleanup vendor shall remove the contaminated water and chemicals used in the wash and rinse process and discard with the other cleanup debris.
  - e. If oil is 500 ppm or more PCB, rope off area around the manhole and mark manhole barricade with PCB labels; ask the Chemistry Unit or spill cleanup vendor to verify cleanup of solid surfaces following the EPA PCB Spill Cleanup Criteria in Table 2, Section XII.
4. The cleanup vendor shall handle the water, oil, and cleanup debris:
  - If sample analysis is less than 50 ppm PCB, vendor shall be responsible for the treatment/disposal of the water and oil, and debris.
  - For spills known 50 ppm or greater PCB, the vendor shall transport PCB-contaminated water and oil, and cleanup debris (pads, disposable PPE, etc.) to the RBC Waste Transfer Facility for transfer to storage drums. The BGE job-site supervisor shall verify and sign the Hazardous Waste Manifest. Instructions for completing the manifest are in Exhibit D, Section XIV.

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Supervisor shall be current in his training for hazardous waste management and completing the manifest.

- 5. The job-site supervisor shall complete a BGE Spill Report for the spill cleanup according to Table 1, Section XII.** The cleanup vendor shall provide UG Lines a report describing its cleanup activity and UG Lines shall attach it to the BGE Spill Report.

**D. Non-Emergency, Non-PCB Oil**

1. After a lab analysis determines the oil to be **less than 50 ppm**, remove the oil from the surface with pads. After the oil layer has been completely removed, pump the water from the manhole in the normal manner. CI Agent may be used to remove the oil according to an UG Lines desktop procedure. After oil is removed, this process includes pumping the water through an EVAC sock. This CI Agent product retains any trace amounts oil that might remain in the water.
2. Dispose of the cleanup debris in approved storage drums (place plastic bag liners in drums before discarding debris in them). Material shall be transported to Spring Gardens. Be sure there is no free flowing liquid. Use additional absorbent if needed. Waste Identification label shall be on all drums prior to transporting them to Spring Gardens.
3. **The Job-site supervisor shall complete a BGE Spill Report as required in Table 1.**

**E. Non-Emergency, PCB or PCB-Contaminated**

1. After a lab analysis determines the oil to be **50 ppm or greater**, contact oil spill cleanup vendor to perform cleanup. The vendor shall remove oil and water from the manhole.
2. The BGE crew shall double wash and rinse manhole walls with contractor's power wash equipment. The BGE crew shall wear personal protective equipment. The vendor shall capture the contaminated water and chemicals used to wash and rinse the manhole.
3. When statistical sampling is required to verify the soil and/or solid surface cleanup (**Table 2**), contact the BGE EMU to oversee this activity. For example, BGE shall remove all oil and verify the removal of all PCB when oil tests 50 ppm or more PCB and contacts or enters a sensitive area. In addition, rope off area around the manhole and mark manhole barricade with PCB labels if oil is 500 ppm or more PCB.
4. The cleanup vendor will generate a hazardous waste manifest, and affix labels to drums used to store cleanup debris. Job-site supervisor shall check that vendor affixed PCB and Hazardous Waste labels to storage drums and properly completed the Hazardous Waste Manifest. A supervisor currently certified in hazardous waste management and manifests shall approve and sign the manifest. The vendor shall transport the oil, water, and cleanup debris to RBC Waster Transfer Facility for disposal.
5. **The jobsite supervisor shall complete the BGE Spill Report according to Table 1.**

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## IX. OTHER TYPES OF SPILLS

### A. Substation Oil Spills

1. In 2015, T&S implemented changes to its response and handling of oil spills and leaking equipment. Changes were made to the SPCC Site-Specific Substation course offered in LMS and a new quick reference spill card will be available by September 30, 2015 to summarize these changes. See the BGE EMU Web site under Spill Tools for the new card.
2. Identify the owner of a cleanup (the Specific Point of Contact or SPOC), at the onset of an event.
  - a. Onset of an event is when an oil spill has occurred or a spill is discovered including in a containment structure.
  - b. There are three types of oil spill events to determine the SPOC:
    - i. Small/ Short Term Event - Responding maintenance supervisor is the SPOC
    - ii. Medium / Longer Duration Event – Director, Automation & Technology and Director, Transmission & Substation will discuss when the event exceeds the normal capacity of a maintenance supervisor to handle and the event will be turned over to Substation Engineering who will assign a SPOC to manage the event
    - iii. Large Significant/ Long Duration Event Requiring a Separate Funding and a Project Be Established – Director, Automation & Technology will request Director, Project Management to provide a Project Manager to manage the event as SPOC
  - c. Cleanups for medium, longer duration and large significant events shall be tracked. The Directors for these events shall ensure a condition report is written for the spill/cleanup and the SPOC is assigned an action item in Passport with a due date. In addition, the SPOC shall notify EMU of these events.
  - d. The SPOC shall ensure the final cleanup of the spill is completed by the due date set in Passport. If circumstances warrant adjusting the due date, follow normal procedure to adjust the date well in advance of its expiration. Both Directors and BGE EMU shall be notified if a due date for spill cleanup changes and an explanation provided.
3. Requirements of the Cleanup and Containment of Oil until Cleanup is Completed
  - a. All oil spills in substations shall be **promptly** controlled, contained and cleaned up upon discovery.
  - b. Small, short term events shall be cleaned up **within 48 hours** of discovery. See Quick Reference Spill Card in Section XI.

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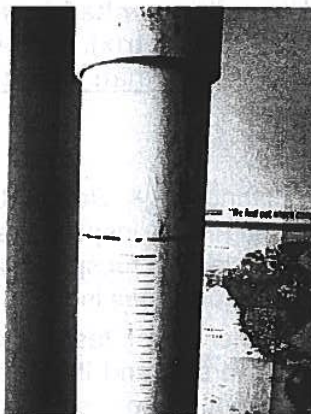
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- c. For medium, longer duration and large significant events, it will likely take longer than 48 hours to cleanup as a result of factors such as spills into containment systems with fire quenching stone and cleanups that require an outage with critical equipment during summer/ winter peak. In such events, the oil must be contained to ensure it does not leave the containment system nor is left in a manner that might leave the station and pollute waters of the state.
- d. As a first step, install and maintain oil-only absorbent booms at the drainage system's discharge pipe.
- 4. Understand the Containment System Design and Function
  - a. The SPOC shall review the site-specific SPCC plan to understand the containment structures, types and design. The SPOC shall determine if they are functioning properly and containing the oil release. For example, certain structures such as weirs and gravity cans shall be checked to ensure they are holding liquids. If not, oil might be inadvertently released from them.
  - b. Regardless of the containment structure, the SPOC shall immediately determine if an oil layer exists and if so have it promptly removed with hand pumps, an oil skimmer, etc. Methods may vary depending on the situation, type of containment and outage constraints. Consult Substation Engineering for guidance.
  - c. Substation Engineering requires inspection cans (S220, S221 and S261) or well screen pipe (S219, S260) to determine if oil exists in a containment structure. If an oil layer exists, determine how much. Substation Engineering can assist with this requirement and oil quantity estimate.
- 5. Agency Notification
  - a. The SPOC shall notify agencies according to Table 1 in J220-1 upon discovery but **no later than two hours** from discovery. Oil in a containment structure must be considered like any spill and reported to MDE according to Table 1. Contact EMU if questions.
  - b. In addition, if there is any oil on the transformer side of a weir structure in Baltimore City, notify MDE.
- 6. Sealing Equipment
  - a. For equipment with leaks where time, manpower and dollar constraints might delay repairs, install and continuously maintain absorbent materials and/or catch basins under the equipment leak to ensure that no further oil enters the containment system. They are not designed to continuously hold oil. Also, update Maximo with the leak rate if it changes significantly.

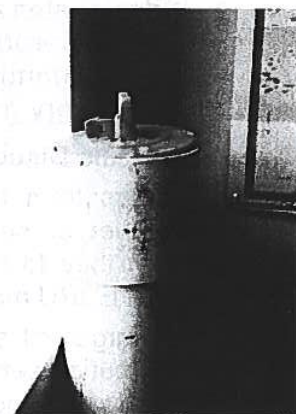
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- b. If a well screen pipe or inspection can does not exist, install a well screen pipe according to Substation Engineering guidance in S219 and S260. For example, install pipe on low side of the pit, extend it the full depth, and use 0.020 slot PVC well pipe with screen the full length. Install a removable cap on the top. See examples of the pipe in Figures 1 & 2.
- c. Sample the liquid layer and determine if an oil layer exists. If so, promptly remove the oil with hand pumps or an oil skimmer.
- d. After equipment is repaired (bolt tightening, re-gasket), complete the cleanup up of oil-impacted areas.



**FIGURE 1: WELL SCREEN PIPE**



**FIGURE 2: REMOVABLE CAP**

- 7. Substation Spill Card and Oil-Only Containment Booms
  - a. Refer to the Quick Reference Spill Card for Substations in Section XI of this procedure as a supplement to the general spill card.
  - b. Use site-specific SPCC plan to determine likely flow of oil, containment structures, etc.
  - c. Follow this work procedure for applicable spill response, cleanup requirements, agency notification and spill report process.
  - d. In an emergency, use BGE containment booms as needed until spill cleanup vendor arrives. They are stored at some of the largest substations for emergencies. See map in Section XI for storage locations.

**B. Contractor Oil Spills**

- 1. When a contractor working for BGE has an oil spill, e.g., a hydraulic line breaks on its equipment, the contractor is responsible for notifying government agencies (> 6 gal or any amount enters waters of the state) and cleaning it up. BGE has an obligation to ensure its contractor notifies the Maryland Department of the Environment (MDE) when required and promptly cleans up its spill. So, the BGE contractor representative shall do the following:

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- Ask questions and gather facts if you suspects a contractor spill has occurred.
- If a spill has occurred, confirm with the contractor that it has notified MDE within two-hours of the spill discovery when required and removed the spill within 48 hours of discovery.
- If the contractor fails to do either, advise the contractor of your intent to notify MDE. Notify MDE of the spill and clearly communicate to the agency that it is **not** a BGE spill but a spill from contractor's equipment or vehicle for which the contractor is responsible to notify the agency.
- Complete a BGE Spill Report for contractor spills ½ gallon or more, any amount that enters water or any other significant spill event. The designated environmental coordinator shall promptly start the spill event in the corporate spill database (via Citrix). Spill events must be reported in the month they occur and no later than seven calendar days from spill discovery date.

**C. Small Spills Discovered by Testers**

1. Testers from the Equipment Diagnostic & Repair Unit (EDRU) occasionally discover oil spills when performing their inspections and maintenance work. When they do, they will perform the cleanup for spills that are less than two gallons of oil. EDRU maintains its own spill guidelines in WP 3-5.
2. For larger oil spills, the responsible senior tester will promptly notify the OH Distribution service center about the spill and its urgency. Occasionally, these larger spills might require agency notification, so a prompt handoff is critical to ensure the two-hour notification requirement is met.

**X. TRAINING AND CONTACTS**

**A. Training Responsibilities**

- BGE employees involved with oil spill response, cleanup, notification, and written reports for oil spills, or PCB or unknown PCB oil handling, shall complete required training. Annual training is required for oil handlers at facilities with a SPCC plan and for those who handle unknown or PCB oil spills.
- First line leadership is responsible to ensure that their employees obtain required training. The Learning Management System (LMS) includes required courses by employee and is available on Utility Training's Web page.
- The training records are maintained in Training Server.

**B. BGE and Other Contacts**

**1. BGE EMU – Standard Business Hours**

Sr Engineer - 410-470-6438 (office), 443-580-2525 (cell)  
 Lead Environmental Scientist - 410-470-6433 (office), 443-718-1547 (cell)  
 Sr Scientist - 410-470-6439 (office), 410-476-1400 (cell)

**Emergencies during Non-Standard Business Hours**

Shift Supervisor, DSO - 410-470-7502  
 Gas System Control - 410-470-9410

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2. **Chemistry Unit – Fort Smallwood Road Complex**  
 On-call technician, 24 hours - **410-470-0322**  
*Drop Box for Samples – Gate 37 at Solley Rd entrance next to the badge reader*
3. **Communications – BGE and Media Relations**  
 For media inquiries 24 hours a day - 410- 470- 7433
4. **Materials Delivery**  
 Call Material Delivery for CHS certified driver and vehicle - 410-470-8940
5. **Customer Relations – New Business & High Bills (Residential Customers)**  
 Supervisor - 410-234-7148
6. **Strategic Customer Engineering and Business Account Services (I&C)**  
 Manager Strategic Customer Engineering - 410-470-8993  
 Manager of Business Account Services - 410-209-1328

<b>Use the on-call storm roster for non-standard work hours</b>
---

7. **Utility Training – LMS and related environmental training courses**  
 Training Specialist- 410-470-4921

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## XI. SPILL CARDS AND PROCESS FLOWCHARTS

### QUICK REFERENCE SPILL CARD

#### Non-PCB Oil Spills (Known less than 50 ppm PCB)<sup>6</sup>

##### First Response<sup>1</sup>

1. Stop leak and contain spill.
2. Communicate spill details.
3. Notify government agencies within 2 hrs. of spill discovery when 60 gal. or more contained to land or any amount entered waters of the state.<sup>2</sup>



4. Retain cleanup vendor to assist when entered water or extensive spill.

4. Place clean-up debris in storage drums/sturdy containers (Solids—matl. #66-571, Liquids—matl. #66-566).
5. Complete and affix Waste Identification Label to drums.
6. Clean contaminated tools and equipment with Simple Green cleaner/degreaser.

##### Transportation and Disposal

1. Transport drums to service center/BGE facility.
2. Discard stained soil and clean-up debris in covered spoil pile or general trash (small volume). Absorb any free-flowing liquid with absorbent before discarding soil and debris.



Clean Up—Complete spill clean-up within 48 hours of discovery.

1. Remove and bag leaking equipment and place in spill tray.
2. Remove all visibly stained soil and backfill with clean soil. Remove stained vegetation.
3. Wash and rinse solid surfaces until cleaned of visible stains.

##### Paperwork

1. Complete BGE Spill Report for spills 1/2 gal. or more contained to land, any amount entered water or might draw external stakeholder attention.<sup>3</sup>
2. When MDE is notified, submit the MD Spill Report within 10 business days of completing cleanup.
3. Send BGE Environmental Management Unit (EMU) copies of paperwork within 10 days.

#### Unknown Spills (Untested mineral oil from a transformer, etc., assume 50–449 ppm PCB)<sup>6</sup>

##### First Response<sup>1</sup>

1. Stop leak and contain spill.
2. Communicate spill details and stand by.
3. Notify government agencies within 2 hrs. of spill discovery when 60 gal. or more contained to land or any amount entered waters of the state.<sup>2</sup>
4. Retain cleanup vendor to assist when entered water or extensive spill.

6. Double wash and rinse solid surfaces. Use detergent-based solvent on asphalt and macadam.
7. Place clean-up debris in approved storage drums.
8. Complete and affix Waste Identification and PCB labels to drums.
9. Double wash and rinse tools and equipment with Simple Green cleaner/degreaser.

Clean Up—Complete spill clean-up within 48 hours of discovery.

1. Wear FR disposable coveralls, rubber boots or shoe covers, and Nitrile gloves (outside energized zone).
2. Remove and bag leaking equipment and place in spill tray; affix PCB label.
3. Obtain oil or soil sample. Rush analysis when entered or contacted sensitive area or as needed.<sup>4</sup>
4. Remove all visibly stained soil plus one-foot buffer. Backfill with clean soil. Remove visibly stained vegetation. If no visible traces, arrange for spill boundary determination.
5. If oil is 50 ppm or more PCB and entered sensitive area, contact EMU for assistance. Cleanup verification required. Do not back fill; cordon off spill. If 500 ppm or more, see reverse side for requirements.

##### Transportation

1. If unknown, prepare Daily Hazardous Materials List as shipping paper (one free trip). If known 50 ppm or more PCB, manifest debris to RBC using CHS hauler.<sup>5</sup>
2. Transport drums to RBC Waste Transfer Facility.
3. Leave credit and tagged oil sample (if not rush analysis) on top one of the storage drums.



##### Paperwork

1. Complete BGE Spill Report for all PCB (≥ 50 ppm) and unknown spills.
2. When MDE is notified, submit the MD Spill Report within 10 business days of completing cleanup.
3. Send BGE EMU copies of paperwork within 10 days.

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## PCB Spills (Known $\geq$ 500 ppm PCB, untested insulating fluid or unknown spill $\geq$ 270 gallons)<sup>9</sup>

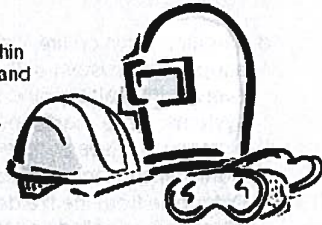
### First Response<sup>1</sup>

1. Stop leak and contain spill.
2. Communicate spill details and stand by.
3. Notify government agencies within 2 hrs. of spill discovery when 60 gal. or more contained to land or any amount entered waters of the state.<sup>2</sup>
4. Retain cleanup vendor to assist when entered water or extensive spill.
5. Cordon off area, visible traces plus a three-foot buffer, and hang PCB labels.

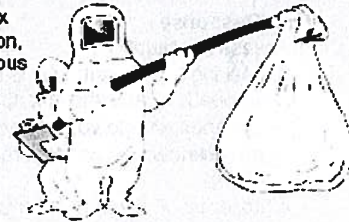
### Clean Up --

Start spill clean-up within 24 hours of discovery and complete promptly.

1. Wear FR disposable coveralls, rubber boots or shoe covers, and Nitrile gloves (outside energized zone).
2. Remove and bag leaking equipment and place in spill tray; affix PCB and Hazardous Waste labels.
3. If unknown, obtain oil or soil sample. Rush analysis when entered or contacted sensitive area or as needed.
4. Remove all visibly stained soil plus one-foot buffer and an additional 10-inch depth of clean soil. Remove visibly stained vegetation. If no visible traces, arrange for spill boundary determination.
5. Double wash and rinse solid surfaces. Use detergent-based solvent on asphalt and macadam.
6. Place clean-up debris in approved storage drums.



7. Complete and affix Waste Identification, PCB, and Hazardous Waste labels to storage drums.



8. Double wash and rinse tools and equipment with Simple Green.
9. Arrange for statistical sampling of area to confirm clean-up. Backfill with clean soil after cleanup is confirmed.

### Transportation<sup>5</sup>

1. Arrange for CHS-certified hauler and vehicle to transport clean-up debris to RBC Waste Transfer Facility.
2. Complete and approve the Hazardous Waste Manifest, Restricted Waste Notification, and PCB Waste Shipment Inventory forms prior to transporting waste. Attach results of lab analysis.

### Paperwork

1. Complete BGE Spill Report for all PCB ( $\geq$  50 ppm) and unknown spills.
2. When MDE is notified, submit the MD Spill Report within 10 business days of completing cleanup.
3. Send BGE EMU copies of paperwork within 10 days.

Contact Information: Analytical Chemistry Unit (24/7): 410-470-0322  
PSC (spill cleanup vendor): 410-477-5769

### Footnotes

1. See Table 1, "Agency Notification and Documentation for Oil Spills" for specific agencies to notify, and phone numbers. Table 1 is available in Environmental Work Procedure J220-1 of the BGE Safety Manual (Section 02 A) and the BGE EMU web page under Spill Tools.
2. Waters of the state include surface and ground water, ponds, lakes, rivers, streams, public/tax ditches, and public drainage systems. In addition, spills in secondary containment structures are subject to the same agency notification requirements as spills contained on land.
3. For example, spills at schools, public gathering places and neighborhoods.
4. Sensitive areas include vegetable gardens, crop and grazing land, waters of the state, drinking water, and sanitary sewer systems.
5. CHS certification, Hazardous Waste Manifest, and associated shipping papers are required to transport spill cleanup debris that is 50 ppm or more PCB.
6. Oil spills include mineral oil, insulating fluid, hydraulic fluid, some gasoline condensate, motor oil, etc.

Revised 9/13. The most up-to-date version is available on EMU website.

**BGE**

An Exelon Company

<b>BGE</b>	ENVIRONMENTAL WORK PROCEDURES	Source: S. Fuchsluger	Version Date: 8/25/2015
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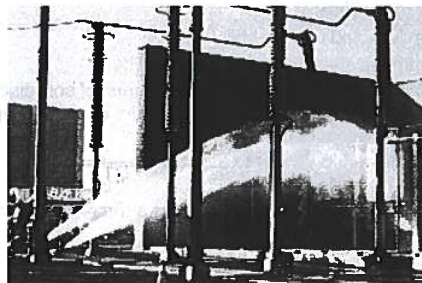
## QUICK REFERENCE SPILL CARD - SUBSTATIONS

### First Response

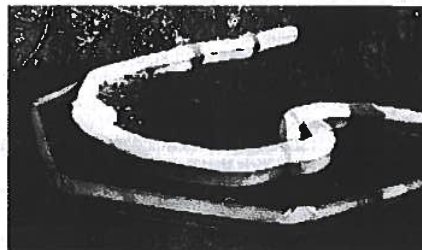
1. Assess the situation.
  - a. Leaking equipment: why is it leaking; can leak be stopped; what is the oil capacity?
  - b. Oil: approximate volume released, where did it go, unknown PCBs (item manufactured pre-July 1979)?
  - c. Impacts: oil entered water/sensitive area<sup>1</sup> or contained to site?
  - d. Circumstances: does equipment have secondary containment; oil contained or overflowed containment, grade of land and flow direction, fire or rain event, nearest water receptors?
  - e. Review the SPCC plan for response information including oil capacity, secondary containment, flow of an oil release, and nearest water receptor.
2. Stop the leak and contain the spill.
3. Communicate spill details to Control Room System Operator and On-Duty Supervisor.
4. Get assistance as required by situation.
  - a. BGE assistance.
  - b. Approved spill vendor(s).
  - c. BGE Environmental Management Unit (EMU).
  - d. For unknown PCB spill cleanup requirements, refer to general Quick Reference Spill Card in EWP 220-1 (see Section 2A of the BGE Safety Manual).
5. Notify government agencies within 2 hrs of spill discovery when 60 gal or more and contained to land, or if any amount entered water. Refer to Table 1 in EWP 220-1 for requirements.

### Contain Oil


1. Does leaking equipment have secondary containment?
  - a. If yes, confirm that released oil is contained; walk down drainage system to secondary containment structure and outfall.
  - b. If oil has overflowed any part of the system, take immediate steps to contain oil that was released. Use booms, absorbent materials, dig berm or pits, whatever is needed to contain released oil. Also, use supplemental secondary containment as needed (see next section of this spill card).
  - c. Spill vendor can vacuum released oil into a tanker. When spill is large, vendor can bring in frac tanks (20,000 gal each) to hold oil.



- d. If equipment is on fire, water from fire suppression system or fire department might overwhelm drainage and secondary containment systems. Make provisions for containing water and oil (see Supplemental Secondary Containment section of card).
  - e. Determine from the fire department the amount of water being applied and frequency so adequate containment and treatment capacities are setup. Also, use of less water is preferred if possible.
2. If no secondary containment exists for leaking equipment, determine if oil is contained to land or has flowed off the property. Take similar steps to contain oil released from equipment as with equipment with secondary containment (#1 b. to d.).
  3. If oil has flowed off the property or has a chance of leaving the property, have spill vendor install booms promptly at outfall(s) and at several stream crossings down-grade of the station to contain any oil released outside the station. Use fences and booms in combination where stream flow is intermittent.
    - a. Approved spill vendors have hard and soft booms.
    - b. BGE has soft booms stored at some of the largest substations. Use these booms until the spill vendor arrives. See the map in Section XI EWP 220-1 for substations with emergency booms.



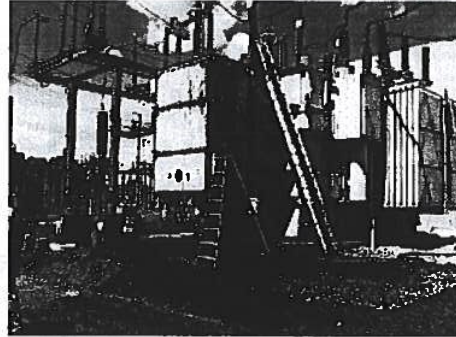
<sup>1</sup>Water includes storm drain inlet, streams, ponds, public drainage system, etc. Sensitive areas include crop land, grazing land, and vegetable gardens.

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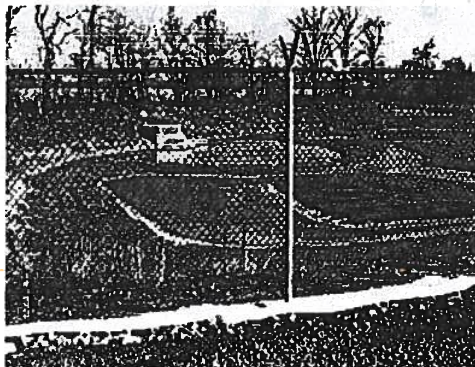
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- c. MDE Emergency Response has hard booms too (so promptly notify MDE whenever oil spill is large, has entered or has a chance of entering water – First Response Item #5).
- 4. If equipment is on fire and/or has large volume of oil remaining in it, might consider removing oil from equipment as soon as practical. This will reduce total amount of oil that can be released off site. To use this option, confirm okay with Substation Engineering & Standards. Also, see Supplemental Secondary Containment options in the next section.



#### Supplemental Secondary Containment

1. If equipment is on fire and station has a storm-water management (SWM) pond, divert water and oil to it by excavating a shallow trench from overflow area to the pond inlet. Install oil-only absorbent booms at SWM pond outfall and hard booms at drainage structure where water exits the pond.
2. Other options include:
  - a. Portable secondary containment.
  - b. Excavated pit with a plastic liner.
  - c. Frac tanks.
  - d. Adjacent secondary containment structure.
  - e. Vacuum trucks.



3. Arrange with spill vendor to transport oil/water to nearest facility with an oil-water separator and sufficient capacity for overflow volume.

#### Cleanup and Disposal

Follow standard requirements in the general spill card. In addition, the following items highlight a few issues specific to substation spills.

1. Remove oil impacted stone, soil, and vegetation. Small volumes can go in general trash; coordinate disposal of large volumes of cleanup debris with the spill vendor and EMU.

2. Wash and rinse all solid surfaces impacted by the oil release.
3. Rinse drainage and containment systems. Treat rinse water as oil-contaminated water; send it to an approved vendor's facility with an oil-water separator.
4. If equipment oil or compound is unknown PCB (manufactured prior to July 1979: bushings, PTs, CTs, OCBs, etc.), confirm PCB concentration before discarding any cleanup material or equipment. Cleanup debris and condemned equipment with oil or compound that tests  $\geq 50$  ppm PCB are considered PCB-contaminated or PCB and shall be discarded as hazardous waste. Follow the general spill card and EWP 220-1 for all applicable PCB spill cleanup and disposal requirements.

#### Documentation


1. Request spill vendor to provide a cleanup report documenting what was done to clean up the released oil.
2. Within 10 days of completing the cleanup:
  - a. Submit to EMU a completed BGE Spill Report along with the vendor's cleanup report as required by Table 1 in EWP 220-1.
  - b. When MDE has been notified by phone, also complete and submit to the agency the MDE Spill Report.

#### Assistance

Contact EMU for assistance during any phase of the spill discovery, response, cleanup, disposal and documentation as needed. Contact information is listed on the EMU Web page at [www.ge.cec/Environmental/EnvironmentHome.htm](http://www.ge.cec/Environmental/EnvironmentHome.htm).

Revised 11/12 – The most up-to-date version is on EMU website.



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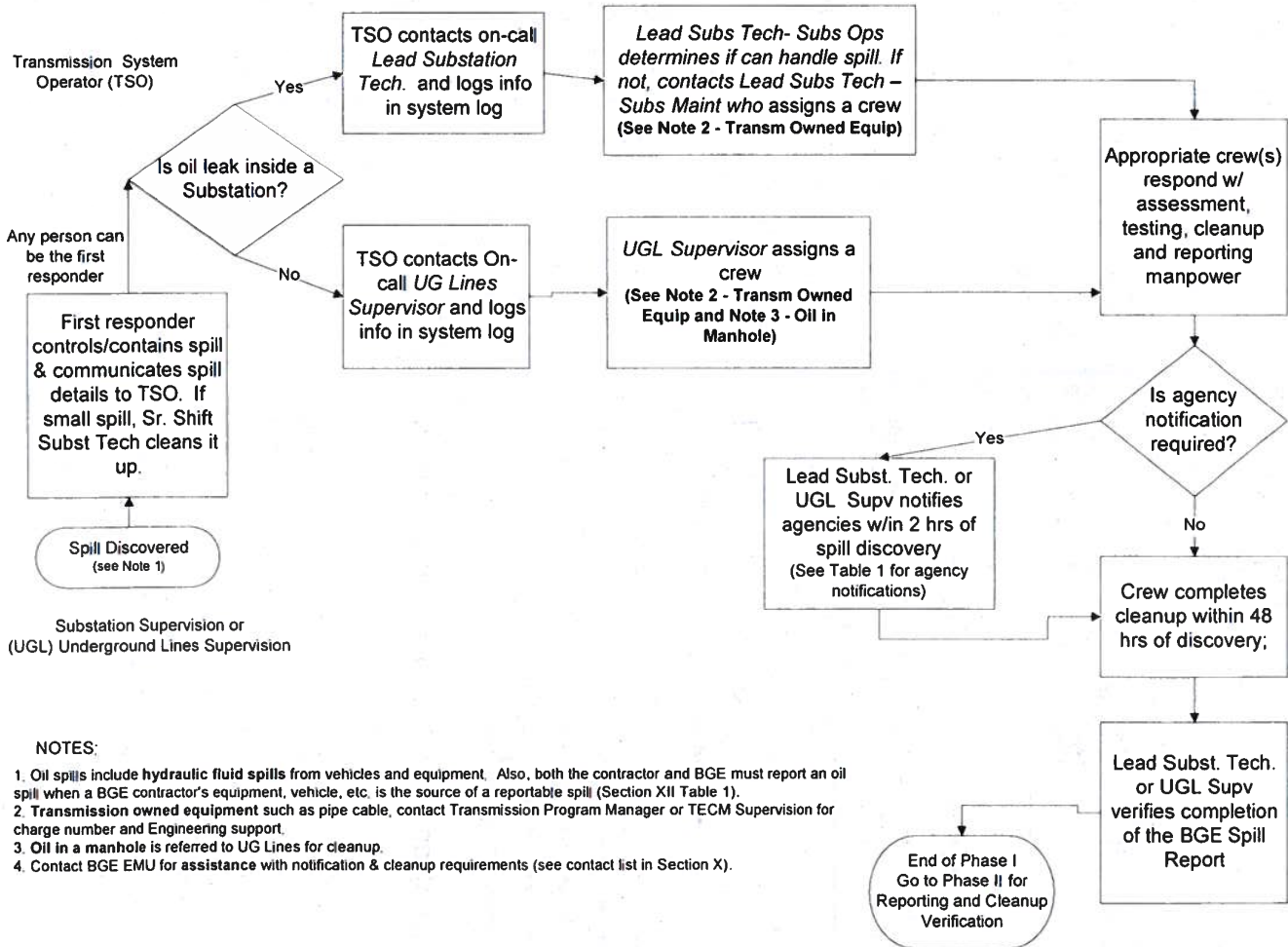


Figure 2 - Spill Notification and Cleanup for Substation & Transmission (Phase I)

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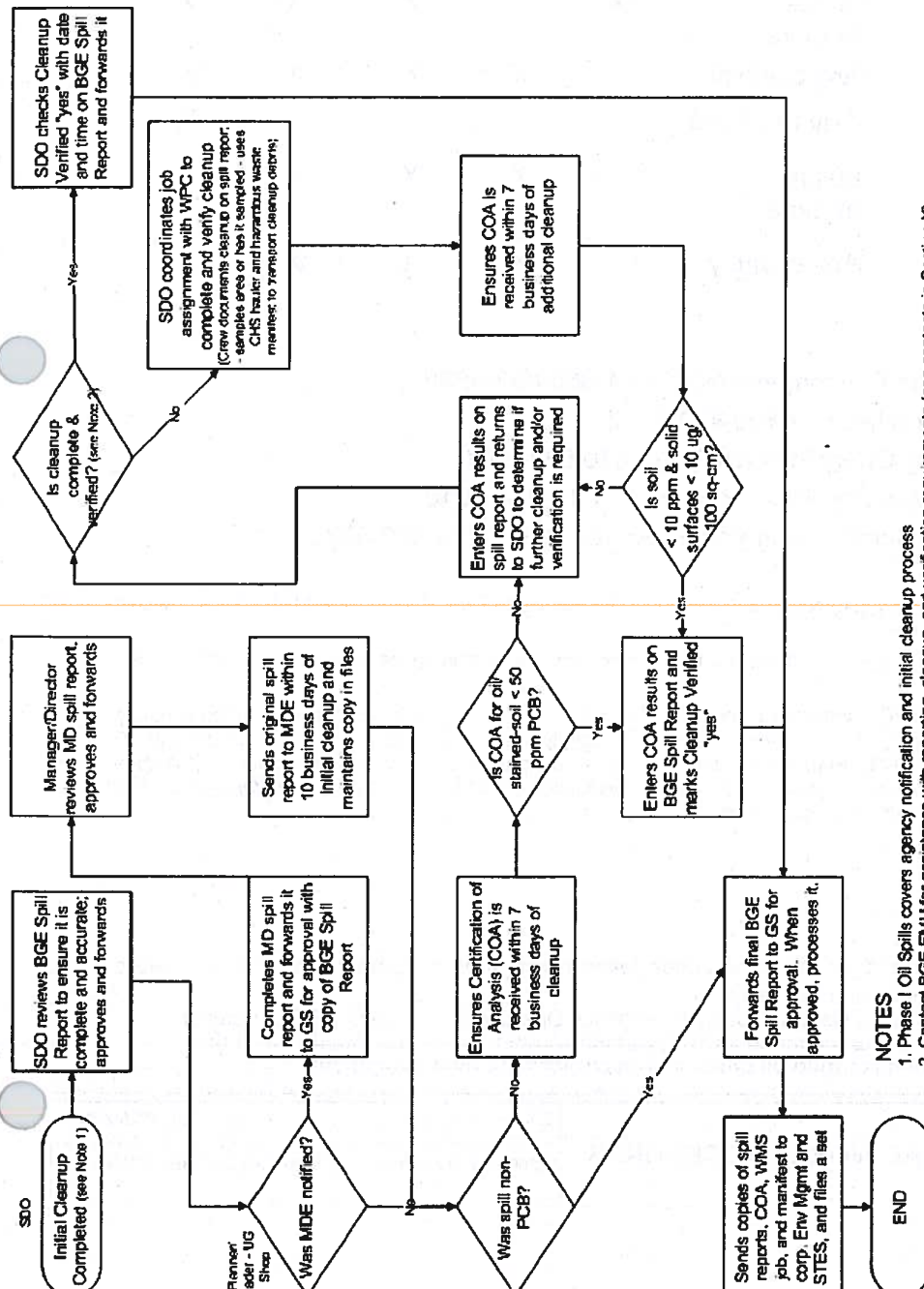


Figure 3 - Spill Reporting and Cleanup Verification (Phase II)

NOTES  
 1. Phase I Oil Spills covers agency notification and initial cleanup process  
 2. Contact BGE EMU for assistance with reporting, cleanup, and verification requirements (see contacts in Section X)

as of 03-20-03

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END

## XII. AGENCY NOTIFICATION AND CLEANUP TABLES

**Table 1 - Agency Notification and Documentation for Oil Spills**

PCB Status	Entered <u>Water</u> or Likely to Pollute It <sup>1</sup>	Release Quantity	Agencies to Notify			Spill Reports	
			MDE	NRC	HCEO <sup>2</sup>	MDE	BGE <sup>3</sup>
<b>NON-PCB</b> (blue and white label)	No	½ to 59 gal					X
	No	60 gal or more	X		X	X	X
	Yes	Any quantity	X	X	X	X	X
<b>UNKNOWN</b> (unlabeled) & <b>KNOWN</b> <b>PCB 50</b> <b>ppm or more</b>	No	Any to 59 gal					X
	No	60 gal or more	X	X	X	X	X
	Yes	Any quantity	X	X	X	X	X

### Contact Information:

- Maryland Department of the Environment (MDE) - 1-866-633-4686
- National Response Center (NRC) - 1-800-424-8802
- Harford County Emergency Operations (HCEO) - 410-638-3400
- Environmental Protection Agency (EPA) Region III - 215-814-9016
- Analytical Chemistry Unit, Constellation Power Source Gen. - **410-470-0322**

### ADDITIONAL NOTES:

- A. Spills that are expeditiously contained and removed shall be reported according to Table 1; otherwise, MDE shall be notified of spills regardless of quantity released.
- B. Spills that occur in secondary containment structures are treated the same as all other spills and shall be reported to the State according to Table 1.
- C. **Sensitive Areas:** If spill is unknown PCB and release contacted a vegetable garden or crop/grazing land, or entered waters of the State, drinking water, or sanitary sewer systems, deliver oil sample to chemistry lab for rush analysis. If oil tests 50 ppm or more PCB, promptly contact BGE EMU for assistance with conducting a performance-based cleanup. (EPA does not require notification of its regional office under the performance-based option (761.61(b)) but all PCB contamination shall be removed. Removal shall be verified and documented.)

<sup>1</sup> Waters of the State include surface and ground water, ponds, lakes, rivers, streams, public/tax ditches, and public drainage systems. They do not include sanitary sewer.

<sup>2</sup> If a spill occurs in Harford County, notify Harford County Emergency Operations whenever MDE is notified.

<sup>3</sup> Internally, document contractor spills the same as BGE spills though it is the responsibility of the contractor to notify agencies of and cleanup oil spills that occur from its own equipment.

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D. If spill is unknown PCB and there are insufficient visible traces to determine the boundary, contact BGE EMU for assistance. Statistical sampling is required to determine the spill boundary.

**Table 2 – EPA PCB-Spill Cleanup Criteria**

<i>CONCENTRATION or VOLUME of SPILL</i>	<i>Low concentration Spill which involves less than 1 pound of PCBs (&lt;270 gallons of <u>untested</u> mineral oil)</i>	<i>High Concentration Spill and low concentration spills involving more than 1 pound of PCBs (270 gallons or more untested mineral oil)</i>
<i>LOCATION of SPILL</i>	<i>Any location</i>	<i>Outdoor <u>Electrical</u> Substation <u>more than 0.1km or 328 ft. from residential/commercial areas.</u> Substations less than this distance shall meet the standards for non-restricted access area.</i>
Definition of Spill Area	Visible traces plus one-ft buffer. If no visible traces, use a statistically based sample scheme	Visible traces plus a one-foot buffer. Place clearly visible signs. An area involving all visible traces plus a 3-ft buffer shall be cordoned off. If no visible traces, use statistical sampling and notify EPA Region
Implementation and Completion of Cleanup	Within 48 hours	Implement ASAP but no more than 24 hours (48 hours if PCB transformer). Cleanup should be completed promptly in all cases
Soil Cleanup	Remove visibly contaminated soil, restore to original grade with soil < 1 ppm PCB	25 ppm or 50 ppm with a sign
Solid Surface Cleanup	Double washed/rinsed except all indoor residential surfaces, other than vaults, shall be cleaned to 10 µg/ 100 square cm	Impervious and non-impervious surfaces to 100 µg/ 100 sq. cm
Post Cleanup Sampling	No	Yes – Statistically based sampling is required
Sensitive Areas	Remove all PCB; statistically verify	Remove all PCB; statistically verify
Miscellaneous		If substation converted to another use, the spill site shall be cleaned up to non-restricted access standards.

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**Table 2 – EPA PCB-Spill Cleanup Criteria (continued)**

<i>CONCENTRATION or VOLUME of SPILL</i>	<i>High Concentration Spills and low concentration spills involving more than 1 pound of PCBs (270 gallons or more untested mineral oil)</i>	<i>High Concentration Spills and low concentration spills involving more than 1 pound of PCBs (270 or more gallons untested mineral oil)</i>
<i>LOCATION of SPILL</i>	<i>Other Restricted Access Areas (industrial buildings, service centers, etc. more than 0.1km or 328 ft. from residential/commercial areas)</i>	<i>Non-restricted access areas (residential, commercial, rural and any area other than restricted access areas and outdoor electrical substations less than 0.1km or 328 ft. from residential/commercial)</i>
Definition of Spill Area	Visible traces plus one-ft buffer. If no visible traces use a statistically based sampling scheme.	Visible traces plus a one-ft buffer. Place clearly visible signs. An area involving all visible traces plus a 3-ft buffer shall be cordoned off. If no visible traces, use statistical sample and notify EPA Region.
Implementation and Completion of Cleanup	Implement ASAP but no more than 24 hours (48 hours if PCB transformer). Cleanup should be completed promptly in all cases	Implement ASAP but no more than 24 hours (48 hours if PCB transformer). Cleanup should be completed promptly in all cases
Soil Cleanup	25 ppm PCB	10 ppm and soil excavated to 10 in. Restore spill site with < 1 ppm soil
Solid Surface Cleanup	High contact surfaces to 10 µg/ 100 sq. cm. Low contact in-door impervious surfaces to 10 µg/100 sq. cm. Low contact in-door non-impervious surfaces to 10 µg/100 sq. cm or to 100 µg/100 sq. cm and encapsulation. Low contact out-door impervious and non-impervious surfaces to 100 µg/100 sq. cm.	Indoor surfaces, high contact; out-door surfaces which are high contact; residential/commercial areas; indoor vault-areas; and low contact, outdoor impervious surfaces to 10 µg/100 sq. cm. Out-door, low contact non-impervious surfaces to 10 µg/100 sq. cm or 100 µg/100 sq. cm and encapsulation
Post Cleanup Sampling	Yes – Statistically based sampling is required.	Yes – Statistically based sampling is required
Sensitive Areas	Remove all PCB; statistically verify	Remove all PCB; statistically verify
Miscellaneous	If restricted access areas converted to another use, the spill site shall be cleaned up to the non-restricted access standards	Furnishings, toys and other easily replaceable household items shall be disposed as hazardous waste.



**Table 3 – SPILL CLEANUP MATERIALS, LABELS AND FORMS**

<b>Category</b>	<b>Description</b>	<b>Material No.</b>
Absorbents	Absorbent, floor, for oil and grease Pillow, absorbent, 17" x 21" x 2" Spill kits/ "Attack Pacs" (for trucks); oil sorbent pads/booms	Grainger 66K80 Safeware Inc.
Plastic Bags and Sample Bottles	Bag, polyethylene, 34" x 48" x 8 mil, yellow, for debris Bag, poly, 60" x 48" x .008 mil, yellow, for equipment Bag, polyethylene, 6" x 9", .002 mil, yellow, for soil samples Ties, 7" nylon, self locking, for bags Bottles, glass, for fluid samples	66942 66947 82287 12867 See note 1
Towels and Rags	Wiper, 2 ply, paper, 12" x 10.5" Cloth, white wiping, 10 lb box	05651 66321
Solvent and Hand Cleaner	Thinner, mineral spirits (1 gal container) Cleaner, Simple Green, detergent – concentrate, one gal Cleanser, waterless, hand	66920 66F43 67326
Storage Drums	Drum, 55 gal, DOT approved, solids, removable head Drum, 55 gal, DOT approved, liquids, oil resistant gasket	66571 66566
Personal Protective Equipment	Gloves, Nitrile, sizes 8 to 11, disposable Coveralls, flame retardant, disposable, XXL Coveralls, PCB disposable, Tyvek XL to XXXL Shoe cover, disposable Boots, rubber, black, pull over Goggles, anti-fog, safety, plastic	66440 to 66443 04Y37 66137,66901,66943 66F69 67342 to 67348 67206
Labels	Label, Waste Identification Label, PCB Warning Label, Hazardous Waste Tag, Insulating Fluid Spill Backing, magnetic, soft vinyl, for PCB Warning label	66705 66013 81340 See note 2 (83219) 66039
Forms	BGE Spill Report MDE Spill Report Hazardous Waste Manifest, PCB Waste Shipment Inventory, and Restricted Waste Notification Form	See note 3 See note 3 See note 3

**NOTES FOR TABLE 3:**

1. Order sample bottles from Analytical Chemistry Unit, Constellation Power Source Gen.
2. Order forms from Printing & Digital Media; phone: 410-470-7171.

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3. Contact the BGE EMU for these forms: BGE Spill Report is available from *Preferred Print Vendor*, the MDE Spill Report is on the EMU Web page.

**Table 4 – Approved Cleanup Vendor**

<b>Vendor</b>	<b>24-Hour Response Line</b>
PSC (Philips Services Company) 4510 North Point Blvd. Sparrows Point, MD 21219	(410) 477-5769

**NOTES:**

1. The approved cleanup vendor has complied with the vendor approval process; BGE has an established purchase order with the vendor.
2. This contact information is maintained in the BGE Safety Manual and is posted on the BGE EMU Web page under Spill Tools.
3. Contact Environmental Management Unit (EMU) at 410-470-6433 with your questions and comments.

**Approved Chemistry Laboratories** (in addition to the Chemistry Unit at Ft Smallwood Rd Complex)

**Phase Separation Science, Inc.**  
6630 Baltimore National Pike, Baltimore, MD 21228  
410-747-8770 (office)  
410-371-9035 (cell)

**Microbac Laboratories, Inc.**  
2101 Van Deman St, Baltimore, MD 21224  
410-597-6226 (office)

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### XIII. SPILL REPORTS

**Exhibit A:** Complete the BGE Spill Report Sections (for oil and chemical spills). The environmental coordinator (EC) shall promptly start the spill event in the corporate spill database (via Citrix). Spill events must be reported in the month they occur and no later than seven calendar days from spill discovery date. ECs are listed on EMU Web page.

- I. Enter spill location, county, and feeder number. Check off what the spill impacted: Was it contained on land? Did it enter surface water?
- II. Enter the date and time the spill was first discovered by BGE, and when the cleanup was started and completed. If oil released was of unknown PCB concentration, state when the initial cleanup was completed (required within 48 hours of discovery).
- III. Check off the source of the spill. If it was from a transformer, capacitor, reclosure, etc. Provide the company number. Check the appropriate box for the cause of the release. Enter the fluid capacity of the equipment from its nameplate, and an estimate of the fluid amount spilled and spilled oil recovered. Also, add *Non-Preventable Spill* or *Preventable Spill* (i.e., a result of human error or flawed maintenance procedure).
- IV. Enter type of substance spilled; if other, enter chemical. Specify where the cleanup debris was taken: RBC Waste Transfer Facility or other (typically the service center for non-PCB debris). Enter the number of drums used in the cleanup. Specify the material that was removed including the volume and depth of soil/stone. Enter the number of bags of absorbent used. When a cleanup vendor is used, enter the company's name.
- V. For spills of unknown PCB concentration, check the types of samples obtained. Include the date and time they were delivered to the RBC Waste Transfer Facility or Chemistry Unit. The Chemistry Unit provides ppm PCB in its Certificate of Analysis report.
- VI. Check if agency notification was required. If yes, check the agencies that were notified. Typically the crew leader obtains this information from the WMS job Construction Notes. Enter the date and time of the calls, and the names and titles of the regulatory officials contacted. When the NRC is called, also include the NRC case number. Finally, provide the name of the employee who performed the notifications (this information can be obtained from the DSO/ DCOM electronic spill log – EMU website under Spill Tools).
- VII. Describe the type of area where the oil was released (i.e., residential, substation, etc.), if the spilled oil was visible (e.g., oil stain on roadway or sidewalk), and the type of solid surfaces that were cleaned. If cleanup was delayed as a result of an emergency, note the reason for the delay and its duration, e.g., major storm. Provide a simple sketch of the spill site. If statistical sampling is required, also show the grid location.
- VIII. The job-site supervisor shall print and sign his name, and submit the form to his supervisor. The supervisor shall verify that the report is complete and accurate and approve it before forwarding it to the planner. After cleanup is verified as complete, the manager/director shall approve the report.

	<b>ENVIRONMENTAL WORK PROCEDURES</b>	Source: S. Fuchsluger	Version Date: 8/25/2015
		Approved: D Norden	Next Review Date: 4/15/2018

## BGE SPILL REPORT

**TO BE COMPLETED FOR OIL AND PCB/INSULATING FLUID SPILLS  
(See Table 1 - Agency Notification and Reporting for Oil Spills)**

**I.**      *EXAMPLE 1*

Incident No: \_\_\_\_\_ Feeder No: NA

Soil Location: 123 Broadway St County: Baltimore City

Contained on land       Entered storm drain

Contacted grazing and       Entered surface water (name of water body) \_\_\_\_\_

Contacted vegetable garden/cropland       Entered sanitary sewer

---

**II.**

Spill discovered (first responder)      Date (mm/dd/yy): 9-10-13      Time: \_\_\_\_\_

Cleanup started: \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_

Cleanup completed: \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_

(If unknown PCB, state when initial cleanup completed)

---

**III.**      *Non-Hazardous Spill*

Source of Spill: \_\_\_\_\_ Cause of Spill: \_\_\_\_\_ Fluid Quantities: \_\_\_\_\_

Transformer Co. # \_\_\_\_\_  Electrical failure      Transformer capacity (nameplate): \_\_\_\_\_

Capacitor \_\_\_\_\_  Vandalism      \_\_\_\_\_

Other (specify) Hydraulic line       Vehicle accident      Amount spilled (approx): 2 gal

Other (specify) \_\_\_\_\_      Amount recovered: 0 gal

---

**IV.**

Type of Substance Spilled: \_\_\_\_\_ Disposal Material Consists of: \_\_\_\_\_

Non-PCB       Sed       Shrubs       Soil

Unknown PCB concentration       Other \_\_\_\_\_

Other (specify): Hydraulic fluid      Depth of soil removed: 3"

Material for Disposal sent to: \_\_\_\_\_ Volume of soil removed: 1/2 cu yd

RBC, Waste Transfer Facility      Amount of absorbent used: 2 bags

Other (specify) Front St      Cleanup Contractor: \_\_\_\_\_

Number of drums used in cleanup: 1      (If used, attach copy of contractor's cleanup report)

---

**V.** (For unknown PCB soils)

	Yes	No	Date	Time	(Office to complete this information)	
					Lab No.	PCB (ppm)
* Fluid Sample Sent	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	_____
Soil Sample Sent:	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	_____
(Only if fluid not available)						
Cleanup Sample Sent	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	_____
Cleanup Verified	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	_____

\* Do not submit fluid known to be Askarel or non-PCB.      Lab No. and PCB (ppm) from Certificate of Analysis.

---

**VI.**

Notification to state or federal agencies required:      Yes      No            (Based on spill details from first responder)

Regulatory Official(s) Contacted

	Yes	No	Date	Time	Name	Title
Nat. Response Ctr. 1-800-424-8802	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	_____
MD Dept. of the Env. 1-866-633-4686	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	_____
Hanf. Co. Emer. Ops. 410 638 3400	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	_____

When NRC is notified: list NRC case No \_\_\_\_\_

Name of person who made notification(s): \_\_\_\_\_ Telephone No: \_\_\_\_\_

3/06/13 Rev 4/11

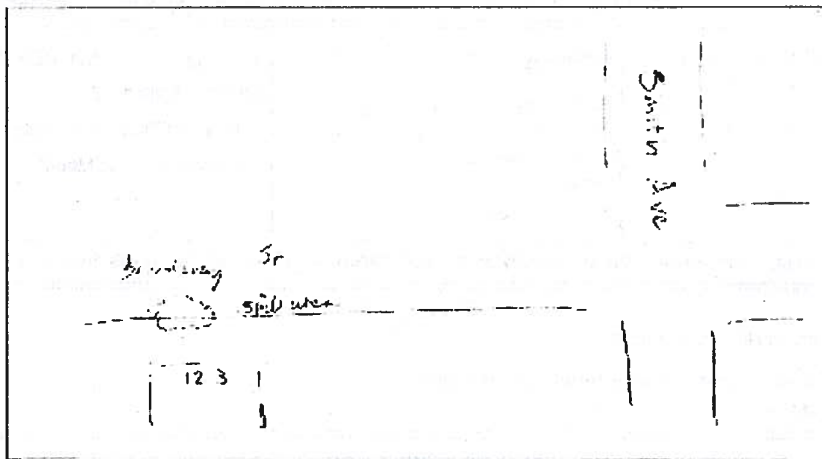
Do not duplicate blank forms

(See back)

**VII.**  
 Brief description of the spill (include information such as residential, substation or commercial location, whether there were any visible traces, and the types of solid surfaces cleaned) immediate line of aerial device failed and spilled fluid on roadway and soil along roadway side

If the cleanup was delayed due to an emergency or adverse weather, explain the nature and duration of the delay:

Provide sketch of the spill area showing surrounding structures and the location of soil sampling points:



**VIII.**  
 I hereby certify that the clean up requirements specified in the Environmental Work Practices for Oil Spill Response, have been met and that the information contained in this report is true to the best of my knowledge.

Name of person making the report (please print) John Johnson

Dept. Code: 80961 Signature: [Signature]

Work Location (Piney Orchard S.C., Essex Substation, etc.) Front St

Supervisor's Approval: [Signature] Planner/FSA: Sharon Blue

Director/Manager's Approval: [Signature]

Mail completed report within ten business days of completing the spill cleanup:

**Environmental Management Unit  
 Spring Gardens, Service Building Room 202  
 Attention: Oil Spill Report**

**Exhibit B: The MDE Spill Report**

<b>BGE</b>	<b>ENVIRONMENTAL WORK PROCEDURES</b>	Source: S. Fuchsluger	Version Date: 8/25/2015
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This report is generated from the corporate spill database. See Section VII on Job Closeout and Reporting.



State of Maryland Department of the Environment  
 Emergency Response Division  
 1800 Washington Blvd, Suite #105  
 Baltimore, Maryland 21230-1721



PURSUANT TO THE PROVISIONS OF STATE LAW AND REGULATION, (COMAR 26.10.01.03) "A PERSON DISCHARGING OR PERMITTING THE DISCHARGE OF OIL, OR WHO EITHER ACTIVELY OR PASSIVELY PARTICIPATES IN THE DISCHARGE OR SPILLING OF OIL, INCLUDING VEHICLES IN TRANSIT, SHALL REPORT THE INCIDENT IMMEDIATELY TO THE ADMINISTRATION." THE REPORT OF AN OIL SPILL OR DISCHARGE SHALL BE MADE TO THE ADMINISTRATION IMMEDIATELY, BUT NOT LATER THAN TWO HOURS AFTER DETECTION OF THE SPILL.

Spill Date	1/16/2014	Spill Time	12:00 AM	Date cleanup completed	1/16/2014
Spill Location	1701 Fallow Field Ct	Waterway	None	Product	Non-PCB Oil
Town or City		Quantity To Waterway		Quantity Spilled	85 Gal
County	Anne Arundel	Area Affected (Sq feet)	440	Equipment Type	Distribution Transformer - Pad Mount
Zip		Sensitive Area			
ADC Coordinate					

Spill Location Description residential area, spill mostly on adjacent parking lot; and on soil and grass around PM transformer

**CAUSE**

Cause of Spill Vehicle Hit Pole or Equip.

**Describe in detail the circumstances contributing to the spill:**

Car struck PM transformer

**CLEANUP COMPLETION**

Date cleanup was initiated:	1/16/2014	Spill Quantity Recovered:	85 Gal
Date cleanup was completed or terminated	1/16/2014	Amount of soil/materials removed:	6 drums; used 10 bags of absorbent material
		Approximate depth of soil/materials excavated	4"
Disposal Site / Vendor	PSC Baltimore	Number of Drums/Containers:	6

**VENDOR HELP WITH CLEANUP**

Name of Vendor Called (if any): PSC - Baltimore

**Describe in detail containment, removal, cleanup and disposal:**

Cleaned up oil spill and replaced transformer

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 Emergency Response Division  
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 Baltimore, Maryland 21230-1721



Baltimore Gas & Electric Company

**PREVENTION OF RECURRENCE**

**Describe in detail the Procedures, and Methods instituted to prevent recurrence of the spill:**

**NOTIFICATION FOR REPORTABLE SPILLS**

**NRC Report#:**

**MEMA Report #:**

	<b>Agency Person Notified</b>	<b>Date Notified</b>	<b>Time (HH:MM am/pm)</b>
NRC:			
MDE:	Terry Haney	1/30/2014	1:59 PM
US EPA:			
Coast Guard:			
MEMA:			
LEPC / HCEO:			
Fire Department:			
Sanitary District:			
Other:			

Company Responsible: BGE

Coordinator: Cindy Sterling

Address: 2900 Lord Baltimore Dr., Baltimore, Md 21244

Phone: (410) 470-5906

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**XIV. TRANSPORT AND DISPOSAL FORMS AND LABELS**  
**Exhibit C – Daily Hazardous Material List**

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# DAILY HAZARDOUS MATERIAL LIST

BALTIMORE GAS & ELECTRIC COMPANY  
Electric Transmission & Distribution Division

Vehicle Number: \_\_\_\_\_ Location: \_\_\_\_\_ Date: \_\_\_\_\_ Page \_\_\_\_\_ of \_\_\_\_\_

INSTRUCTIONS: List the quantities of all hazardous materials on the vehicle (detailed instructions on back)

QUANTITY	UNITS	HM	SHIPPING NAME	HAZARD CLASS	ID NUMBER	PACKING GROUP	RESPONSE GUIDE NOS.	LABEL(S) REQUIRED	COMMON NAME
	CYL		Sulfur hexafluoride	2.2	UN1080	None	126	Non-Flammable Gas	SF6
	CYL		Air, compressed	2.2	UN1002	None	122	Non-Flammable Gas	Compressed air
	CYL		Oxygen, compressed	2.2	UN1072	None	122	Non-Flammable Gas	Oxygen
	CYL		Nitrogen, compressed	2.2	UN1066	None	121	Non-Flammable Gas	Nitrogen
	CYL		Acetylene	2.1	UN1001	None	116	Flammable Gas	Acetylene
	CYL		Liquefied petroleum gas	2.1	UN1075	None	115	Flammable Gas	Propane
	GAL		Gasoline	3	UN1203	II	128	Flammable Liquid	Gasoline
	GAL		Kerosene	3	UN1223	III	128	Flammable Liquid	Kerosene
	GAL		Diesel fuel	3	NA1993	III	128	None	Diesel fuel
	GAL		Petroleum distillate, n.o.s.	3	UN1268	III	128	Flammable Liquid	Mineral spirits
	Drums		Hazardous waste, solid, n.o.s. (unknown PCB concentration)	9*	NA3077	III	171	None	Spill cleanup debris
	Drums		Hazardous waste, liquid, n.o.s. (unknown PCB concentration)	9*	NA3082	III	171	None	Spill cleanup liquid

- NOTES:**
- Report hazardous-material spills at once to the Security Operations Center at 410-470-5800
  - The driver must list all hazardous materials that he is transporting except consumer-commodity items. He is to verify the quantity and units for each material.
  - Do not list consumer-commodity items, that is, materials in containers of one gallon or less. Store them in a compartment or box that is visibly labeled "OR.M.D."

**NOTE:**  
GASOLINE IS AN EXCEPTION. LIST IT REGARDLESS OF THE QUANTITY CARRIED.

- Keep the Emergency Response Guidebook with this form.
- The driver must be HAZMAT trained and have a HAZMAT-endorsed CDL license if the weight of hazardous-materials exceeds 1,000 pounds. He must placard the vehicle. Class 9 items are an exception: the vehicle does not require placarding when they exceed 1,000 pounds.

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**Exhibit D: COMPLETING A HAZARDOUS WASTE MANIFEST**

Refer to the back of the EPA Uniform Hazardous Waste Manifest (EPA form 8700-22) for instructions on completing the form. In addition, below are some BGE-specific instructions by Item # to aid in completing the manifest. Finally, editions of the manifest form prior to revision 3-05 are obsolete.

The field supervisor and/or office support typically complete the Manifest with assistance from BGE EMU. In addition, the person signing the manifest is required to be current with the annual training courses Hazardous Waste Management and Manifest (ENV 200 and 202).

Use RBC's EPA Generator ID number MDD980832067 when transporting cleanup debris 50 ppm PCB or more directly from the spill site to RBC. In rare case where hazardous waste is transported from the service center to RBC, use or obtain the EPA Generator ID number for the service center. When transporting known hazardous waste from a facility, confirm with EMU the correct EPA Generator ID Numbers to use. Work procedure EWP 430-1 covers this topic as well.

1. Fill in the number of pages after attaching the Restricting Waste Notification, PCB Waste Shipment Inventory Form, and lab analysis report.
2. Emergency Response Phone
3. Manifest Tracking No.
4. Fill in RBC's address 2900 Lord Baltimore Drive, Baltimore, MD 21244 when transporting debris directly from the spill site to RBC. Use the Company name with service center address and phone number when transporting from the service center.
5. Transporter 1
6. Transporter 2
7. Designated Facility – the RBC Waste Transfer Facility for cleanup debris 50 ppm or more PCB
8. Use appropriate US DOT description from Table 5. For example, RQ, Polychlorinated Biphenyls, 9, UN3432, PG III, (PCB-Contaminated Debris, MX01, MT01) for cleanup debris 50-499 ppm PCB.
9. Enter the number of drums and the code "DM" under type of container. For transformers, enter CM.
10. Indicate estimated total quantity of spill debris. If the drum is filled with fluids, estimate 300 lbs (130 kg). If solids, estimate 500 lbs (230 kg). Divide pounds by 2.2 and enter "K" for kilograms.
11. Enter units – weight or volume
12. Enter EPA and MD waste codes: Enter "T" for toxic waste under Hazardous Code. If over 500 ppm, enter "H". In addition, enter MT01 if 50-499 ppm or M001 if 500 ppm or greater.

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13. Special Handling Instructions and Additional Information - Enter the Emergency Response Guide 171 Generator's Certification

**TABLE 5 – DOT DESCRIPTIONS FOR HAZARDOUS WASTE MANIFEST**

Equipment/Item	PCB Concentration	DOT Description
<b>Transformer</b>	50 to 499 ppm	RQ, Polychlorinated biphenyls, 9, UN 2315, PG III (PCB-contaminated transformer, MT01)
	500 ppm or more	RQ, Polychlorinated biphenyls, 9, UN 2315, PG III (PCB transformer, M001)
<b>Misc. Equipment</b>	50 to 499 ppm	RQ, Polychlorinated biphenyls, 9, UN 2315, PG III (PCB-contaminated equipment, MT01)
	500 ppm or more	RQ, Polychlorinated biphenyls, 9, UN 2315, PG III (PCB equipment, M001)
<b>Capacitor</b>	500 ppm or more	RQ, Polychlorinated biphenyls, 9, UN 2315, PG III (PCB capacitors, M001)
<b>Cleanup Debris</b>	50 to 499 ppm	RQ, Polychlorinated biphenyls, 9, UN 3432, PG III (PCB-contaminated debris, MX01, MT01)
	500 ppm or more	RQ, Polychlorinated biphenyls, 9, UN 3432, PG III (PCB debris, MX01, M001)
<b>Oil in Drums</b>	50 to 499 ppm	RQ, Polychlorinated biphenyls, 9, UN 2315, PG III (PCB-contaminated oil, MT01)
	500 ppm or more	RQ, Polychlorinated biphenyls, 9, UN 2315, PG III (PCB oil, M001)
<b>Waste Oil</b>	NA	Waste Oil, N.O.S., combustible liquid, NA-1993 (Non-hazardous)
	NA	RQ, Waste Oil, N.O.S., combustible liquid, NA-1993 (Solvent-contaminated waste oil, F001)

**Additional Notes**

1. Review the Controlled Hazardous Substance (CHS) Hauler Certificate to ensure it is current. It has an expiration date. The State of Maryland issues bi-annual CHS hauler certificates. Typically, the hauler maintains the CHS Hauler Certificate in the cab of its truck.

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**2. Processing the Manifest**

- a. Check all six copies to determine that they are CLEAR AND LEGIBLE. Give the six-part manifest to the certified driver for his signature. Keep 6th copy at the service center.
- b. Attach the completed Restricted Waste Notification, completed PCB Waste Shipment Inventory, and laboratory analysis report to the completed manifest before giving it to the certified driver.
- c. Office support shall make a photocopy of 1st and 6th copy and send them to the BGE EMU. After RBC returns 3rd copy to the service center, make a photocopy of 3rd copy and send it to EMU.
- d. Maintain all manifests and associated hazardous waste documents permanently.

**Exhibit E: COMPLETING THE RESTRICTED WASTE NOTIFICATION FORM**

**The Restricted Waste Form is to be completed for known PCB and PCB-contaminated waste, and attached to the Manifest. To complete the form:**

1. Insert the preprinted manifest number from Section A of the Hazardous Waste Manifest in the space in the first paragraph, e.g., 000204411.
2. Enter line number(s) where PCB waste is listed on the Hazardous Waste Manifest, e.g., 9.b.1., under Manifest Line # in the table.
3. Enter MX01, MT01, and/or M001 under EPA Waste # in the table for the wastes being transported. For example, enter MX01 and MT01 for cleanup debris that is 200 ppm PCB.
  - MX01 for oil spill cleanup debris
  - MT01 for PCB-contaminated cleanup debris, electric equipment, and oil in drums
  - M001 for PCB cleanup debris, electric equipment, and oil in drums
4. Sign and date the form at the bottom.
5. Leave all other areas of the form blank. They do not apply to PCB-contaminated or PCB waste.

**CALL THE BGE ENVIRONMENTAL MANAGEMENT UNIT IF YOU NEED A BLANK COPY OF THIS FORM.**

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**RESTRICTED WASTE NOTIFICATION**

RE: TREATMENT REQUIRED for Land Disposal Restrictions

This is to notify you, pursuant to 40 CFR 268.7 (a), that the waste(s) referenced below, shipped on  
 Manifest number \_\_\_\_\_ are subject to land disposal restrictions specified at 40 CFR part 268.

Manifest Line #	EPA Waste #	Subcategory and/or Treatability Group

**Waste analysis data:**

- Are attached                       Are not required (this notice is based on my knowledge of the waste)

- I believe this waste, and any residues resulting from the management of this waste, may required treatment to meet applicable standards as set forth in 40 CFT part 268, Subpart D, prior to land disposal.

It is your responsibility to assure management of these wastes in compliance with all applicable conditions and restrictions imposed by law and regulation.

- This waste is hazardous debris subject to the alternative treatment standards of 40 CFR 268.45. This debris must be treated for the following contaminants:

\_\_\_\_\_

\_\_\_\_\_

- This waste is a characteristics waste or F039 and may reasonably be expected to contain the following constituents:

\_\_\_\_\_

\_\_\_\_\_

- This waste is an F001 – F005 and contains the following constituents:

\_\_\_\_\_

\_\_\_\_\_

- This waste may be land disposal without further treatment:

I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Part D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA section 3004 (d). I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.


- This waste is subject to: a case-by-case extension under 40 CFR 268.5, an exemption under 40 CFR 268.6, and a nationwide variance under 40 CFR Subpart C; therefore, is exempt from land disposal restrictions.

Please note that certain conditions may apply to the land disposal of these wastes. These wastes will become subject to land disposal prohibitions as of \_\_\_\_\_. It is your responsibility to assure that these wastes are managed in compliance with all applicable conditions and restrictions imposed by law or regulations.

Sincerely,

Date: \_\_\_\_\_

**Exhibit F: PCB WASTE SHIPMENT INVENTORY FORM**


	<b>ENVIRONMENTAL WORK PROCEDURES</b>	Source: S. Fuchsluger	Version Date: 8/25/2015
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**The PCB Waste Shipment Inventory Form is to be attached to the hazardous waste manifest for known PCB or PCB-contaminated debris. To complete the form:**

- Organization and Account (WBS) No. - Self-explanatory
- Company Location (From) - Insert the job site address
- Location (To) - "RBC"
- Manifest No. - Use the number from the Hazardous Waste Manifest (Exhibit D)
- Date of Shipment - Self-explanatory
- Truck CHS No. (Vehicle Sticker Number) - Obtain number from certified driver; verify that certification is current (See Additional Notes in Hazardous Waste Manifest – Exhibit D for an explanation)
- Driver Certification No. - Obtain number from certified driver; verify that certification is current (**Hazardous Waste Manifest – Exhibit D**)
- Item Number - "1" for the first drum, then sequentially number each row for additional drums
- Material Description - This is typically "soil", "rags", or "used garments"
- Container Number - Leave blank
- Equipment Serial Number - Insert the equipment's serial number (leaking transformer, etc.)
- PCB's (PPM) - Enter the PCB concentration in parts per million (ppm)
- Weight (kg) - Write "Estimated 250" for the weight in kilograms for a full drum of solid debris (multiply weight in pound by 0.454 to convert to kilograms)
- Removed From Service - Self-explanatory
- Date Stored - Leave blank
- Date of Disposal - Leave blank

**CALL THE BGE ENVIRONMENTAL MANAGEMENT UNIT FOR ADDITIONAL COPIES OF THIS FORM.**

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**BALTIMORE GAS & ELECTRIC COMPANY**  
PCB Waste Shipment Inventory


Organization No.	
Account No.	

Company Location (From):				Location (To):				
Manifest No:				Date of Shipment:				
Truck CHS No.:				Driver Certification No.:				
Item Number	Material Description	Container Number	Equipment Serial Number	PCB's (ppm)	Weight (kg)	Removed From Service (MMDDYY)	Date Stored	Date of Disposal
11a	500 KVA Pad Transf	---	JSD7432215	560	1728	7 10 11		
11b	Soil Rags Stones	SG-90-4559	-----	450	350	7 11 11		
11c	PCB-Contaminated Oil	SG-90-4560	-----	450	183	7 11 11		

- Note 1: Staple this form to the manifest prior to transporting  
 Note 2: Shaded area is an example of the type of information to be entered

<b>Baltimore Gas &amp; Electric Company Waste Identification Label</b>	
FACILITY/DEPT <u>1260 EAST DEEP LUN RD / HOWARD</u>	
MATERIAL (Check all that apply):	
<input type="checkbox"/> TRANSFORMER <input type="checkbox"/> CAPACITOR <input type="checkbox"/> EQUIP <input type="checkbox"/> PAINT <input checked="" type="checkbox"/> OIL <input type="checkbox"/> WATER <input checked="" type="checkbox"/> SOIL/DEBRIS <input type="checkbox"/> MIXTURE <input type="checkbox"/> PCBs _____ ppm   FLASH POINT <input type="checkbox"/> <38C <input type="checkbox"/> 38-60C <input type="checkbox"/> >60C <input type="checkbox"/> SPENT SOLVENTS/TOH _____ ppm <input checked="" type="checkbox"/> OTHER (specify) <u>UNKNOWN PCB CONCENTRATION</u>	
"FIRST USE" DATE	<u>10-27-00</u>
"FILLED" DATE	<u>10-27-00</u>
DATE SAMPLED	<u>10-27-00</u>
SAMPLE # #	_____
STORAGE DATE	_____
DRUM/BOX No. <u>A 0127 - 01</u>	

**FIGURE 4 – WASTE IDENTIFICATION LABEL**

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**INSULATING FLUID SPILL TAG**

CHECK INCIDENT NO. A 000278

FLUID SAMPLE TO CHEMISTRY UNIT

CLEAN-UP SAMPLE TO CHEMISTRY UNIT

LOCATION: 1220 EAST DEEP RUN RD

TRANSF. CO. NO. B 12869 SIZE 50 KVA

CAPACITOR SIZE \_\_\_\_\_ FDR. NO. 4422

CREWLEADER'S NAME J A SMITH DATE 10/30/00

SERVICE CENTER HOWARD PHONE 410-455-9009

Figure 5 – INSULATING FLUID SPILL TAG

**CAUTION**  
CONTAINS  
**PCBs**  
(Polychlorinated Biphenyls)

A toxic environmental contaminant requiring special handling and disposal in accordance with U.S. Environmental Protection Agency Regulations 40 CFR 761 For Disposal Information contact the nearest U.S. E.P.A. Office

---

In case of accident or spill call toll free the U.S. Coast Guard National Response Center.  
1-800-424-8802  
Also Contact B. G. & E Trouble Desk Toll Free  
1-800-492-0612

Figure 6 – PCB WARNING LABEL

**HAZARDOUS WASTE**  
FEDERAL LAW PROHIBITS IMPROPER DISPOSAL.  
IF FOUND CONTACT THE NEAREST POLICE  
PUBLIC SAFETY AUTHORITY OR THE  
U.S. ENVIRONMENTAL PROTECTION AGENCY.

GENERATOR INFORMATION:  
NAME BGE Pole-Mounted Transformer  
ADDRESS 1220 EAST DEEP RUN RD  
CITY BALTO STATE MD ZIP 21158  
EPA ID NO. MD0700832007 EPA WASTE NO. MT01  
ACCUMULATION START DATE 10/30/2000 MANIFEST DOCUMENT NO. 22101

Eg Polychlorinated biphenyls, 9 UN 2815 PG III  
Polychlorinated dibenz (PDB), MnO1, MT01  
Spill site to EPC  
D.O.T. PROPER SHIPPING NAME AND UN OR NA NO. WITH PREFIX

**HANDLE WITH CARE!**

Figure 7 – HAZARDOUS WASTE LABEL

<b>BGE</b>	<b>ENVIRONMENTAL WORK PROCEDURES</b>	Source: S. Fuchsluger	Version Date: 8/25/2015
		Approved: D Norden	Next Review Date: 4/15/2018



<b>EWP 220 - 1</b>	<b>Section: Emergency Processes</b>
<b>Page 54 of 54</b>	<b>Subsection: Spills</b>

**XV. REVISION HISTORY**

12/15/2011 Converted to BGE Safety Manual template.

7/24/2012 Added requirement to use most current version of BGE Spill Report; changed source for form to BGE EMU.

8/28/2012 Updated general quick reference spill card; made steps for non-PCB spill cleanup more generic; edited spill cleanup vendor list.

11/19/2012 Added emergency supply of absorbent booms for substation spills and a map with their locations; updated the quick reference spill card for substations including a reference to these booms.

1/13/2013 Updated Chemistry Unit contact information and sample drop box location; updated quick reference spill card and CHS hauler requirements.


7/16/2013 Updated the spill response vendor as a result of a new five-year contract.

9/30/2013 Updated internal spill reporting requirements to align with Exelon corporate policy document; i.e., all spills, oil and chemical, ½ gallon or more and noting if spill is preventable or not, and all spills any amount that enter water.

6/17/2014 Updated substation section to identify the owner of a spill event and expectations for a timely cleanup. Also, updated spill reporting process and responsibility of EC to enter events into the corporate spill database.

4/16/2015 Various updates including timely entry of spill reports into the corporate spill database, new MDE Spill Report generated from corporate database for submittal to MDE and following Exelon's environmental document retention schedule (Exhibit E).

8/25/2015 Updated the Substation section to reference changes to T&S's response to oil spills and leaking equipment; also, added the procedure's revision history.

	<b>ENVIRONMENTAL WORK PROCEDURES</b>	Source: S. Fuchsluger	Version Date: 8/25/2015
		Approved: D Norden	Next Review Date: 4/15/2018

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# ATTACHMENT 5

## Closure Plan





## **8.0 CLOSURE PLANS, POST-CLOSURE PLANS AND FINANCIAL REQUIREMENTS**

### **8.1 Closure Plans [COMAR 26.13.07.02D(29)]**

This Closure Plan identifies all steps required to close the PCB Waste Storage Facility at the end of its intended operating life (estimated at 40 years). A post-closure plan is not required because this is not a disposal facility and all wastes are being removed at final closure. The anticipated closure date for the facility is 2056.

#### **8.1.1 Closure Performance Standard [COMAR 26.13.05.07B]**

Closure of this facility will involve removal of all PCB waste from the facility, followed by cleaning and decontamination of structures, equipment and areas which held PCB waste materials, and monitoring to demonstrate that decontamination activities were effective. Decontamination will eliminate any need for post-closure monitoring or maintenance, and will eliminate potential for release of residual PCB wastes after closure.

#### **8.1.2 Final Closure Activities**

BGE will initiate final closure of the PCB Waste Storage facility after PCB wastes are no longer generated in the BGE system. Final closure of the facility is anticipated to occur in 2056. The procedures for final closure activities are detailed in Section 8.1.4.

#### **8.1.3 Maximum Waste Inventory [COMAR 26.13.05.07(c)(2)(c)]**

The maximum PCB waste inventory stored in containers is 45,000 gallons, comprised of either M001 or MT01 oils or equipment, or MX01/MT01/M001 spill cleanup materials. Large PCB capacitors are not anticipated to be stored in the facility at closure, since BGE completed the removal of all large PCB capacitors from substations in December of 1994, at the end of a seven-year change-out program. PCB capacitors on the distribution system have been removed since 1987. Maximum used oil tank storage inventory is 1476 gallons (1090 + 550 nominal volume x 90% permitted capacity).

#### **8.1.4 Disposal or Decontamination of Equipment [COMAR 26.13.05.07(c)(2)(d)]**

##### **8.1.4.1 Closure of Containers [COMAR 26.13.05.09I]**

Containers, boxes, and electrical equipment stored in the facility at the time of closure will be shipped to off-site disposal facilities currently under contract with BGE. Storage area floors, and loading areas and ramps will be swept clean and washed with detergent and water. The cleanup materials will be collected and disposed as PCB wastes. The floors and storage structures will be "wipe sampled" to verify that no PCB contamination is present (less than 10ug/100cm<sup>2</sup>; 40 CFR 761.125). Wipe samples will be obtained and analyzed using SW 846 or other State-approved methods.

##### **8.1.4.2 Closure of Tanks [COMAR 26.13.05.10-7(A)]**

The facility's three aboveground storage tanks will continue to be operational after final closure, but may be used for non-PCB used oil storage, after PCB-related activities cease at the facility. All PCB-contaminated oil will be removed from the aboveground tanks. A suitable solvent, such as non-PCB mineral oil, kerosene or No. 2 fuel oil will be pumped through the existing pumps to decontaminate the pumps, fittings, and pipelines, and to fill the aboveground tanks. The rinsate oil/solvent will be pumped

out of the tanks and transported offsite for disposal as PCB-contaminated used oil. The pumps, piping and tanks will be rinsed three times with the solvent. The residual PCB level will be monitored by sampling and analyzing the rinsate solvent, using EPA SW 846 methods or other MDE-approved methods. After the third rinse, the tanks and pumping system will be deemed "triple-rinsed" and "clean". The tank interiors will be "wipe sampled" to verify that no significant PCB contamination is present (less than 10ug/100cm<sup>2</sup>; 40 CFR 761.125). Wipe samples will be obtained and analyzed using SW 846 or other State-approved methods. There will be no potential for soil contamination, since the three used oil tanks are all aboveground installations.

The tanks, pumps and associated equipment will not be scrapped or disposed, but will continue to be used for storage of used non-PCB mineral oil from distribution-type transformers and other oil-filled electrical equipment.

Workers will be protected during these activities, by using the appropriate attire and personal protective gear specified in the Contingency Plan (Section 6.0).

**8.1.5 Schedule for Closure**

The schedule for closure of the PCB Waste Storage facility is outlined in Table 8-1 below.

**Table 8-1: Final Closure Milestones**

<b>Days</b>	<b>Milestone</b>
180 days prior to closure	Notify MDE of date that closure will begin. Review closure plan with MDE. Continue normal activities.
90 days prior to closure	Submit detailed closure plan including sampling and analysis plan to MDE. Review closure activities with contractor(s).
30 days prior to closure	Review closure plan with facility personnel.
0 - Facility closure	Stop accepting PCB wastes into the facility and waste storage units. Begin physical inventory and preparation of shipping documents and approvals requests to disposal facilities. Continue shipping wastes for disposal. Begin preparing for tank and equipment decontamination
30 days post closure	Complete preparation of manifests and material approvals. Continue preparations for decontamination activities
90 days post closure	Complete removal of PCB wastes from facility. Begin physical cleanup and decontamination of waste storage areas and tanks.
120 days post closure	Complete cleanup and decontamination of waste storage areas and tanks.
150 days post closure	Complete physical cleanup and decontamination no later than this date. Perform sampling and analysis verifying cleanup. Remove reusable equipment from facility, after cleanup is confirmed.

Days	Milestone
180 days post closure	Complete removing decontaminated equipment from facility. Independent engineer inspects facility, reviews sampling results, and certifies closure no later than this date.

**8.1.6 Extensions for Closure Time**

BGE does not anticipate requiring additional time to complete final closure.

**8.2 Post-Closure Plans [COMAR 26.13.05.07H]**

This requirement does not apply to storage facilities.

**8.3 Notice in Deed and Notice to Local Land Authority [COMAR 26.13.07.02D(29)]**

This requirement does not apply to storage facilities.

**8.4 Closure Cost Estimate [COMAR 26.13.07.02D(31)]**

Final closure estimates are provided in Appendix I.

**8.5 Financial Assurance Mechanism for Closure [COMAR 26.13.05.08 & 26.13.07.02D(31)]**

Baltimore Gas & Electric demonstrates financial assurance for the final closure requirements of COMAR 26.13.05.08 by using the surety bond guaranteeing performance of closure at 40 CFR 264.143(c). A copy of the current surety bond and trust agreement, as well as a copy of the latest renewal of that performance bond are included in Appendix I.

**8.6 Post-Closure Cost Estimate [COMAR 26.13.05.08 & 26.13.07.02D(32)]**

All wastes are being disposed of offsite; therefore, there will be no post-closure care activities or costs.

---

**8.7 Financial Assurance Mechanism for Post-Closure [COMAR 26.13.05.08 & 26.13.07.02D(32)]**

All wastes are being disposed of offsite; therefore, there will be no post-closure care activities or costs.

**8.8 Liability Requirements [COMAR 26.13.05.08]**

**8.8.1 Sudden Insurance**

Baltimore Gas & Electric demonstrates financial assurance for the liability requirements of COMAR 26.13.05.08 by using the financial test at 40 CFR 264.147(f)(1)(ii). The latest statement from Baltimore Gas & Electric Company's chief financial officer is included in Appendix I.

**8.8.2 Non-Sudden Insurance [COMAR 26.13.07.02D(33)]**

BGE's facility is a storage facility, therefore, no liability insurance for non-sudden occurrences is required.

**8.8.3 Financial Test for Liability Insurance [COMAR 26.13.05.08 & 26.13.07.02D(33)]**

Baltimore Gas & Electric plans to demonstrate financial assurance for the liability requirements of COMAR 26.13.05.08 for sudden occurrences, by using the financial test at 40 CFR 264.147(f)(1)(iii). The latest statements from Baltimore Gas & Electric Company's chief financial officer, and the independent auditor are included in Appendix I.

**8.8.4 Variance Procedures**

BGE will not request the Secretary for a reduction of liability amounts.

**8.8.5 Adjustment Procedures**

If the Secretary increases the amounts of liability coverage or elects to improve or alter non-sudden liability requirements, then BGE will immediately act to obtain adjusted performance bonds or submit revised financial test demonstrations, if necessary to meet those requirements.

**8.9 State Mechanisms [26.13.07.02D(34)]**

**8.9.1 Use of State-Required Mechanisms**

BGE does not anticipate using any State-required mechanisms.

**8.9.2 State Assumption of Responsibility**

BGE does not anticipate requesting that the State assume BGE's legal or financial responsibilities, as detailed in this Section.



# ATTACHMENT 6

## Facility Description





## SECTION 2.0 FACILITY DESCRIPTION

This section provides an overview of the polychlorinated biphenyl (PCB) hazardous waste storage facility and the hazardous waste management activities performed there as required by COMAR 26.13.07.02D.

### 2.1 General Facility Information [COMAR 26.13.07.02D(2), (3), (4), (5), (8), (9), (15), (25)]

Name of Facility and Telephone Number:	Rutherford Business Center PCB Waste Storage Facility 410-597-7622
Location of Facility:	2900 Lord Baltimore Drive Baltimore, MD 21244 39°20'40" N , 76°45'11" W
Name and Address of Owner:	Baltimore Gas & Electric Company Gas & Electric Building Lexington & Light Streets Baltimore, MD 21203-1475
	OR
	P.O. Box 1475 Baltimore, MD 21203
Facility EPA ID:	MDD 980 832 067
Applicable SIC Codes:	4911 – Electric Services 4939 – Combination Utilities
Other applicable Federal and State Environmental Permits:	Oil Operations Permit 2014-OPT-10544

The Baltimore Gas & Electric Company's (BGE) PCB Waste Storage Facility (Facility) is located in the Purchasing & Materials Management Central Warehouse and the Electric Test Department's complex, which is part of BGE's Rutherford Business Center (RBC) property. The Facility has been permitted for the transfer, storage, and disposal of controlled hazardous substances since 1990. The RBC complex is located approximately five (5) miles west of the Baltimore City, Maryland, in the Second Election District and 10<sup>th</sup> Political District of Baltimore County, and is serviced by public utilities (water, sewer, etc.)

The PCB Waste Storage Facility is an 8,000 square foot totally-enclosed building containing two (2) aboveground tanks, and one (1) aboveground vaulted tank, for used for the storage of waste (PCB-contaminated mineral oil (dielectric fluid)). The Facility also includes an indoor storage area for the storage of PCB or non-PCB solid or liquid wastes, and/or oil-filled electrical equipment.

## 2.2 Facility Operations [COMAR 26.13.07.02D(1), (7)]

BGE's RBC complex (including this Facility) serves as the Company's central materials distribution facility (warehouse). In addition, the RBC complex serves as headquarters for Purchasing & Materials Management and Facilities & Fleet Services Departments. Electrical equipment returned from BGE's electrical generation, transmission, and distribution systems are brought directly to the PCB Waste Storage Facility. The equipment is then evaluated by the Distribution Engineering Department's Equipment Diagnostic and Repair Unit. The equipment is then either repaired, or designated as "waste" and subsequently tested, drained, and stored in the Facility. PCB spill cleanup materials are also received at the facility directly from the fieldwork locations.

The Facility serves as the Company's central temporary storage area for preparing PCB waste equipment and spill cleanup debris prior to its shipment to an EPA- or State-approved disposal facility. BGE's PCB Waste Storage facility does not accept, handle or store PCB waste materials other than those generated by BGE, and therefore does not operate as a commercial PCB storage facility.

## 2.3 Location Information [COMAR 26.13.07.02D(6), (11), (35)]

The RBC Complex is located in a mixed-use area. Light industries lie to the southwest, south and east of the Complex. The area to the northwest and north is primarily residential use. There are no drinking water wells within one quarter mile of the facility.

Surface waters within 1,000 feet (ft) of the PCB Waste Storage Facility include a small stormwater retention pond, located approximately 100 feet northwest (and at a higher elevation) of the new equipment storage yard. A second stormwater management pond is located approximately 1,000 feet southeast on the corner of the RBC property. This structure connects to a tributary of Dead Run, which eventually connects with the Gwynns Falls. All stormwater for the area surrounding the PCB Waste Storage Facility flows into drain inlets in the yard areas of the Complex and flows via underground stormwater conveyances to the stormwater retention pond at the southeast corner of the property. Stormwater from the private vehicle parking areas flows into curb inlets and is also transported via underground conveyances to the retention pond at the southeastern corner of the property. This retention pond then discharges to the Baltimore County municipal storm sewer system along Windsor Boulevard and into the tributary of Dead Run. No sanitary sewage piping or stormwater piping from the roof is located below the PCB Waste Storage Facility containment areas. There are also no process sewers associated with the Facility. Sanitary sewage from the Facility is pumped overhead to outside connections south of the RBC Complex.

A topographic maps depicting the PCB waste Storage Facility boundary, the RBC Complex boundary, intake and discharge structures, hazardous waste treatment, storage and disposal locations, wells, springs, and other surface water bodies, as well as any drinking water wells within one-quarter mile of the Facility are shown in Figure 2-1.

A second topographic map, drawn to scale (1 in equals 200 ft) displaying the following is also included in Figure 2-1:

- 1,000 ft radius around the Facility
- Surface waters, including intermittent streams,
- Surrounding land uses
- A wind rose
- Orientation of the map

- Legal boundaries of the hazardous waste management site
- Access control
- Injection/withdrawal wells (not applicable, see Section 4.8)
- Building, treatment, storage, disposal, or other structures including recreation areas, run-off control systems, access and internal roads, storm, sanitary, and process sewerage systems, loading/unloading areas, fire control facilities, etc.
- Barriers for drainage/flood control
- Location of operational units within the hazardous waste management facility

Wind Rose data for Baltimore MD is included as Figure 2-2 and was obtained from <https://www.meteoblue.com>. The wind rose is based upon climate data for the previous 30 years. A current 15-day wind rose from the National Oceanic and Atmospheric Administration (NOAA) has also been included.

For access control, the PCB Waste Storage Facility is surrounded by a fence which encloses the Central Distribution Warehouse and equipment storage yard. Access to the fenced yard area by non-BGE personnel is monitored by Company personnel. Yard access during non-working hours is strictly controlled by warehouse personnel. Access to the waste storage facility, is controlled by the facility supervisor and/or personnel. Access control and facility security is discussed further in Section 5.0. Access and internal roadways and traffic patterns are shown on Figure 2-3. Figure 2-1 also shows the roads within the RBC complex and the roadway entrances.

Concrete loading/unloading areas are provided at the loading dock located on the north side of the central warehouse and at the PCB Waste Storage Facility. Loading and unloading operations are discussed in Section 4.0. There are eight (8) fire hydrants located in or around the RBC Complex. See Figure 2-1 for hydrant locations.

### **2.3.1 Seismic Standard**

The Rutherford Business Center complex, including the PCB Waste Storage Facility is located in Baltimore, Maryland. Maryland is not listed in Appendix VI of 40 CFR 264 as an area of seismic activity. Therefore, we have provided no further information to demonstrate compliance with the non-applicable seismic standard.

### **2.3.2 Flood Plain [COMAR 26.13.07.02D(26)]**

According to the September 2008 Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), map number 2400100359F, this Facility is located in Zone X which indicates that it is not located within a 100-year floodplain area. A copy of the FEMA FIRM denoting the location of the Facility is included as Figure 2-4.

### **2.4 Facility Photographs [COMAR 26.13.07.02D(12)]**

Photographs of the PCB Waste Storage Facility, illustrating the current treatment, storage, and disposal areas, as well as their associated containment structures (as applicable) are included in Figure 2-5.

### **2.4 Traffic Patterns [COMAR 26.13.07.02D(23)]**

Access to the BGE facility is from Interstate 695, Exit #18, Liberty Road (MD Route 26), west. After a westerly distance of approximately 1/4 mile on Liberty Road, a left-hand turn is made onto Lord Baltimore

Drive. Proceed south on Lord Baltimore Drive approximately 1.25 miles and the Facility is located at 2900 Lord Baltimore Drive, at the intersection of Lord Baltimore Drive and Windsor Boulevard. Cars are able to access the Facility via Lord Baltimore Drive. The Facility entrance for trucks is located on Windsor Boulevard, approximately 1/4 mile west from the intersection of Lord Baltimore Drive and Windsor Boulevard. Traffic patterns into and within the RBC Complex, as well as annual average daily traffic (2015) for Baltimore County roads, are shown in Figure 2-3. A 2016 Maryland State Highway Administration (SHA) Traffic Volume Map, for roadways managed by SHA in the vicinity of the RBC Complex, is also included in Figure 2-3.

Privately owned vehicles are confined to parking lots outside the fenced storage yard area. Within the Facility, traffic vehicles consist of company-owned and contractor-owned vehicles (i.e. trucks) and Facility equipment (i.e. forklifts, sweeper, etc.). Truck traffic is restricted to the main aisle area near the loading platform. Approximately four (4) transport vehicles (trucks of various configurations and weight capacities) containing PCB waste material enter the facility on a daily basis. Approximately twenty (20) Company trucks enter the RBC complex each day, in order to leave oil-filled electrical equipment at the PCB Waste Storage Facility for evaluation. Truck traffic for the Central Warehouse operation averages approximately twenty to twenty five (20-25) trucks per day. Seven (7) forklifts are used on a constant basis throughout the facility to complete normal warehousing operations.

The main access road leading into the facility from Windsor Boulevard is a heavy-duty, flexible paving constructed of a 8 inch bituminous concrete base and a 3 inch bituminous concrete, surface course. The main warehouse loading area is a heavy-duty, rigid paving, constructed of 6-inch crusher run base and a 9-inch reinforced concrete pavement (Class P). Vehicles used for the delivery or removal of PCB waste materials generally have an average weight of 16,000 pounds (lbs) for tractors, 13,000 lbs for trailers, and 22,000 lbs gross vehicle weight for stake side trucks. Assuming removal of a 40,000 lbs load for disposal, the total vehicle gross weight will not exceed the 73,000 lbs gross weight road capacity established by the State of Maryland in the Maryland Motor Carrier Handbook (revised December 2014).

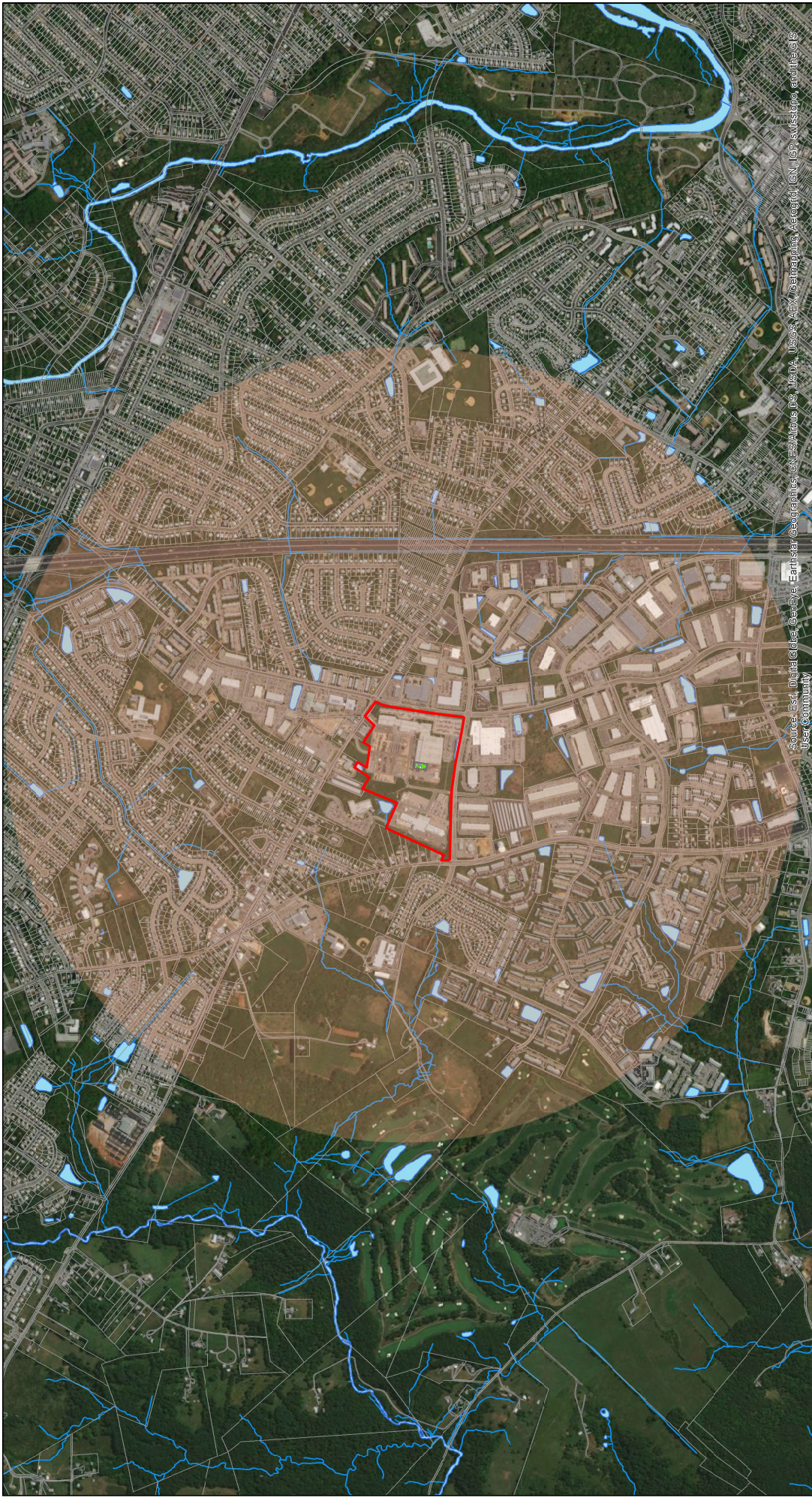
Traffic access within the Facility is controlled by stop signs and sign-in procedures during normal business hours. Access to the PCB Waste Storage facility during off-hours is strictly controlled by BGE security personnel and electronic access gates.

**FIGURE 2-1**

**Topographic Maps**

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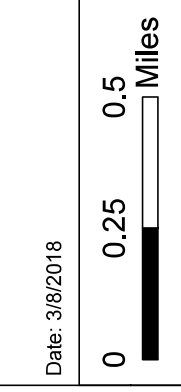




Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, AeroGRID, IGN, ISP, Airphoto, and the GIS User Community



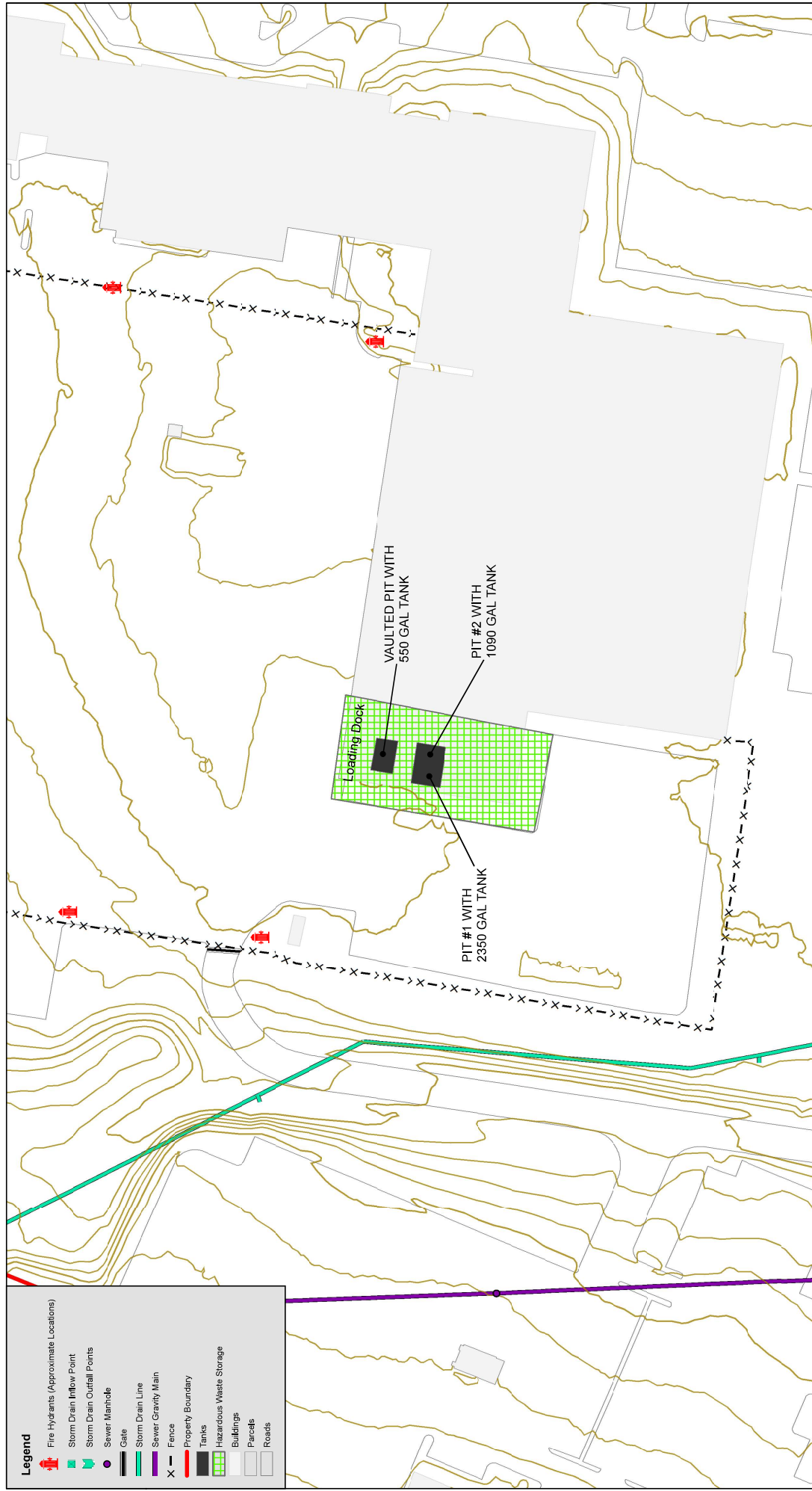
KCI Technologies, Inc.  
 936 Ridgebrook Road  
 Sparks, MD 21152



**Legend**

- Property Boundary
- Tanks
- Hazardous Waste Storage
- Buildings
- 1-Mile Radius
- Roads
- Surface Water
- Parcels

**FIGURE 2-1A**  
**TOPOGRAPHIC MAP**  
 RUTHERFORD BUSINESS CENTER  
 PCB WASTE STORAGE FACILITY  
 2900 LORD BALTIMORE DRIVE  
 BALTIMORE, MD 21244



**Legend**

	Fire Hydrants (Approximate Locations)
	Storm Drain Inflow Point
	Storm Drain Outfall Points
	Sewer Manhole
	Gate
	Storm Drain Line
	Sewer Gravity Main
	Fence
	Property Boundary
	Tanks
	Hazardous Waste Storage
	Buildings
	Parcels
	Roads

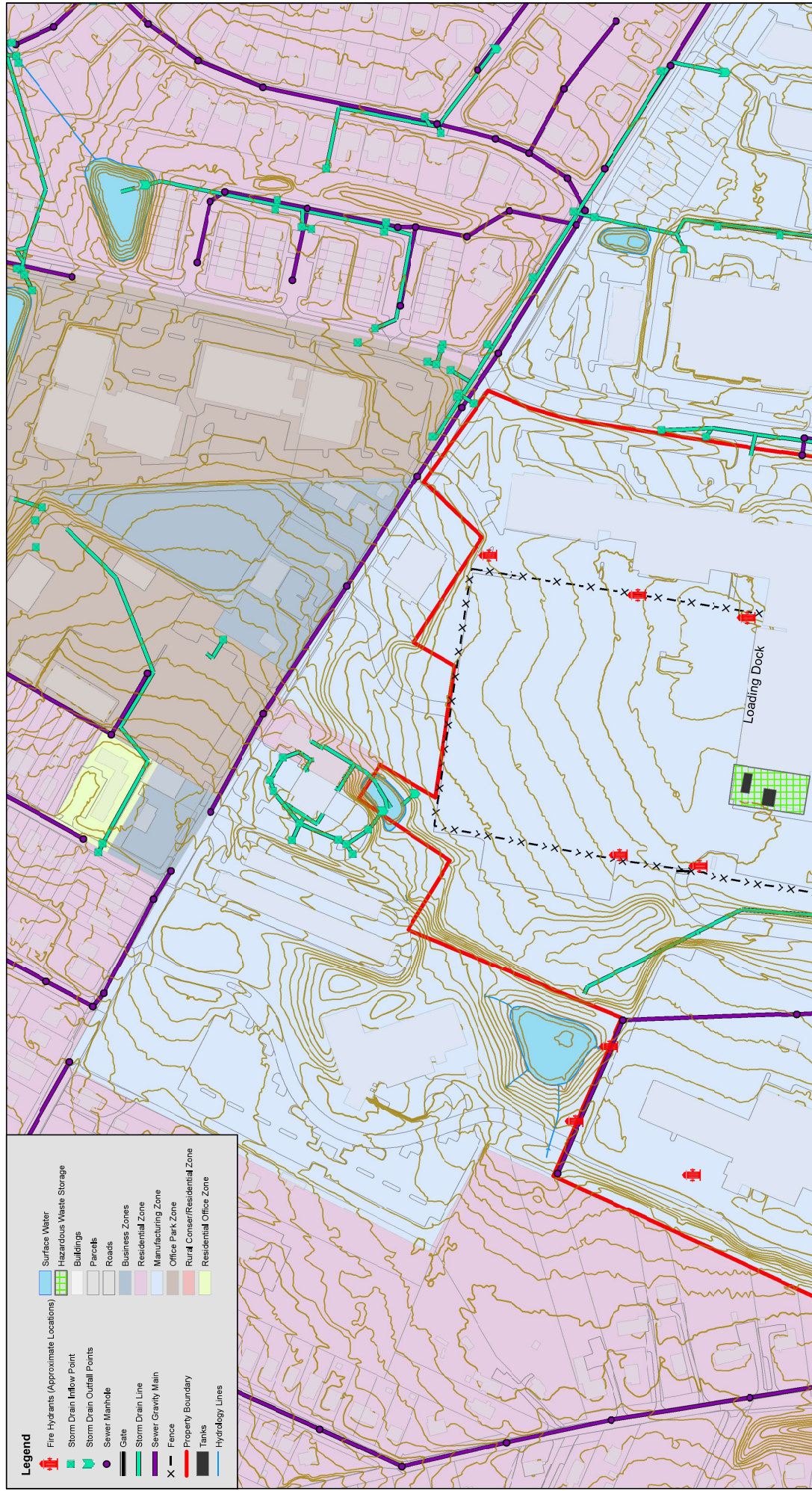


Date: 3/8/2018

**FIGURE 2-1B**  
**TANK LOCATION MAP**  
 RUTHERFORD BUSINESS CENTER  
 PCB WASTE STORAGE FACILITY  
 2900 LORD BALTIMORE DRIVE  
 BALTIMORE, MD 21244

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 TECHNOLOGIES

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 936 Ridgebrook Road  
 Sparks, MD 21152



**Legend**

	Fire Hydrants (Approximate Locations)		Surface Water
	Storm Drain Inflow Point		Hazardous Waste Storage
	Storm Drain Outfall Points		Buildings
	Sewer Manhole		Parcels
	Gate		Roads
	Storm Drain Line		Business Zones
	Sewer Gravity Main		Residential Zone
	Fence		Manufacturing Zone
	Property Boundary		Rural Conserv/Residential Zone
	Tanks		Residential Office Zone
	Hydrology Lines		

**FIGURE 2-1C**  
**TOPOGRAPHIC MAP NORTH**  
 RUTHERFORD BUSINESS CENTER  
 PCB WASTE STORAGE FACILITY  
 2900 LORD BALTIMORE DRIVE  
 BALTIMORE, MD 21244

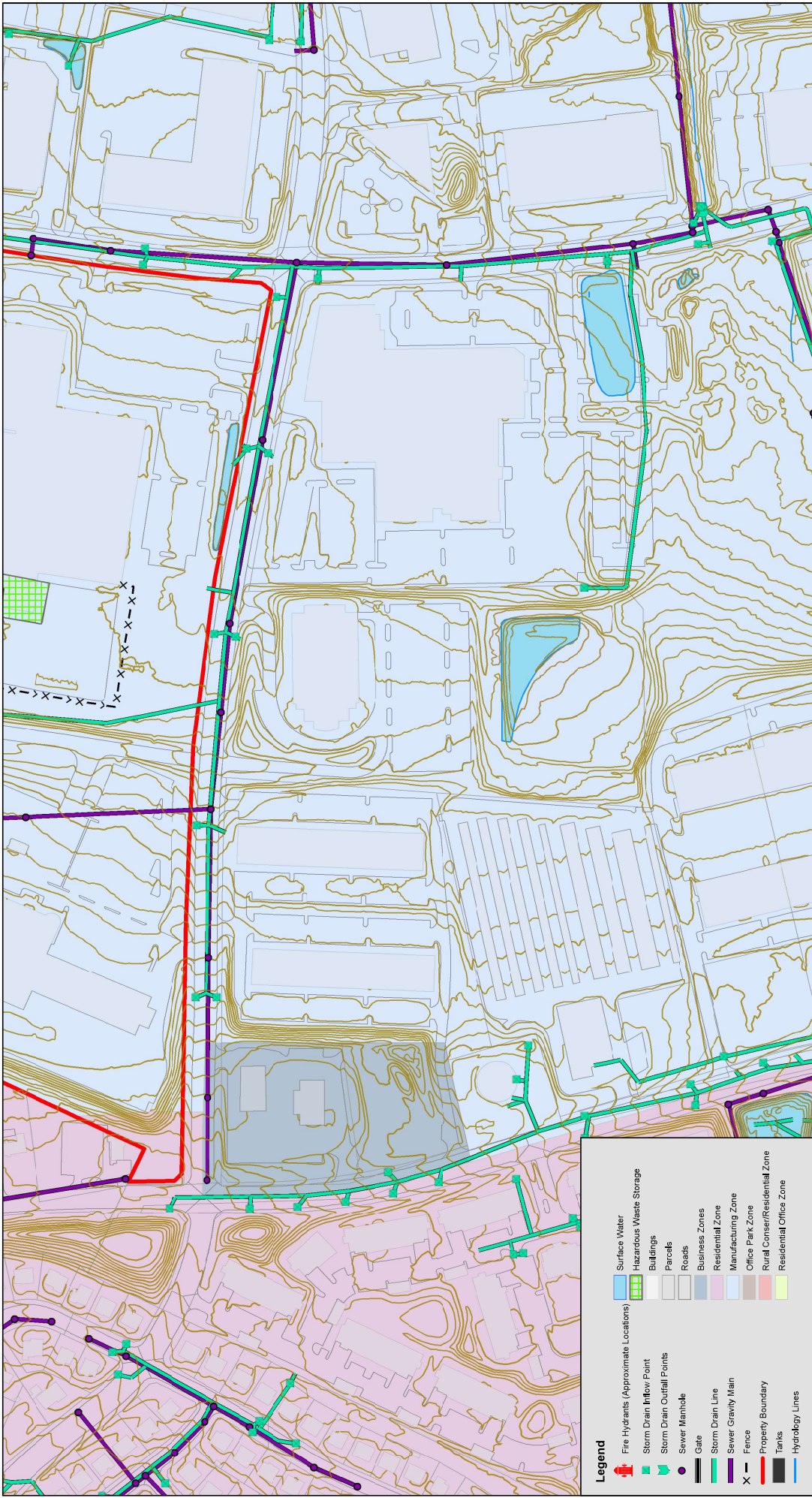
Date: 3/8/2018



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**FIGURE 2-1D**  
**TOPOGRAPHIC MAP SOUTH**  
 RUTHERFORD BUSINESS CENTER  
 PCB WASTE STORAGE FACILITY  
 2900 LORD BALTIMORE DRIVE  
 BALTIMORE, MD 21244

Date: 3/8/2018

0 95 190 380 Feet



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 936 Ridgebrook Road  
 Sparks, MD 21152

**Legend**

	Fire Hydrants (Approximate Locations)		Surface Water
	Storm Drain Inflow Point		Hazardous Waste Storage
	Storm Drain Outfall Points		Buildings
	Sewer Manhole		Parcels
	Gate		Roads
	Storm Drain Line		Business Zones
	Sewer Gravity Main		Residential Zone
	Fence		Manufacturing Zone
	Property Boundary		Office Park Zone
	Tanks		Rural Conserv/Residential Zone
	Hydrology Lines		Residential Office Zone

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DATE 09/09/05  
Revision 0  
D

Figure 6. Schematic drawing of the PCB Waste Storage facility, showing safety and emergency equipment locations.

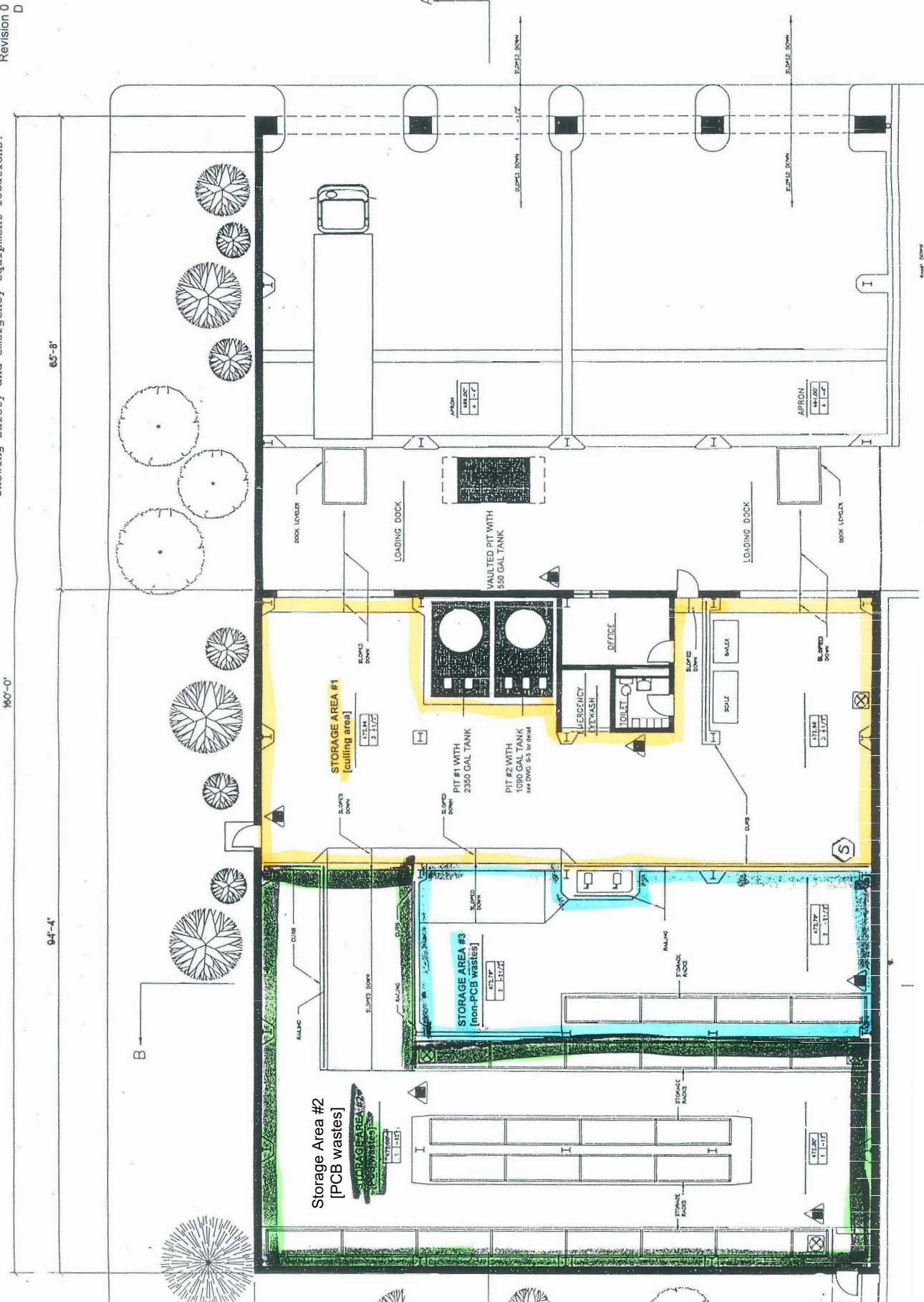
**PARSONS**  
Architects • Planning • Interior Design  
224 Maryland Avenue  
Baltimore, MD 21201  
(410) 333-1500

- SAFETY EQUIPMENT CABINET
- SPILL CLEANUP MATERIALS LOCATIONS
- 20A-80BC 20 lb DRYCHEM EXTINGUISHER

FLOOR PLAN

BALTIMORE GAS AND ELECTRIC

WASTE TRANSFER FACILITY  
RUTHERFORD BUSINESS CENTER  
BALTIMORE, MARYLAND



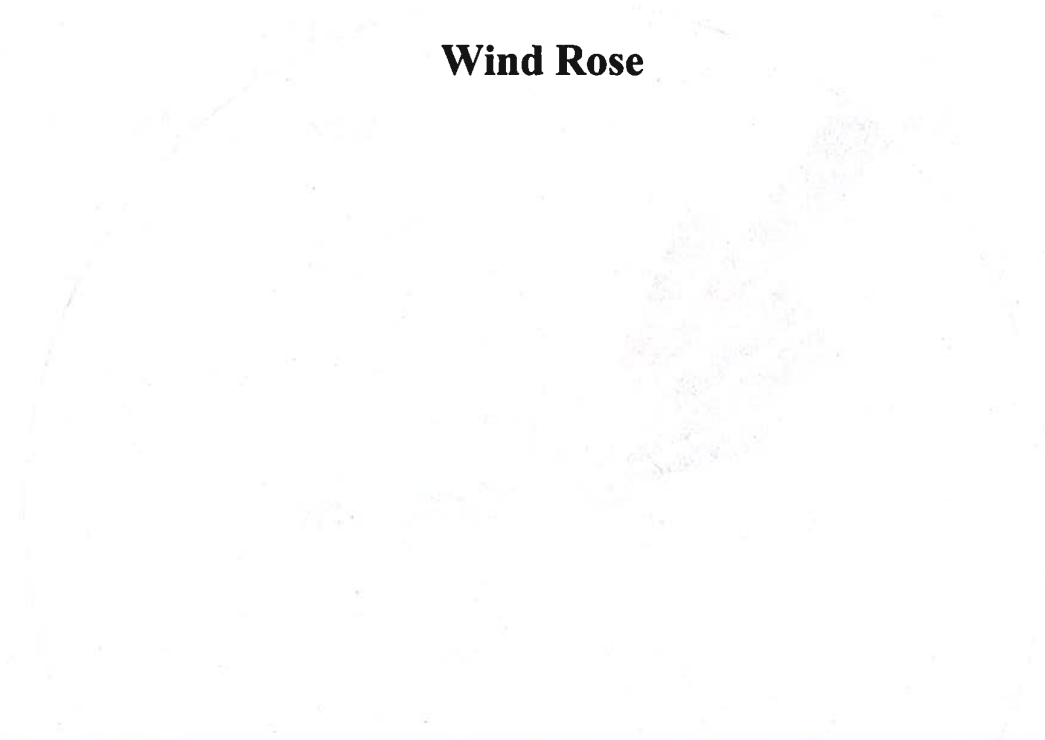
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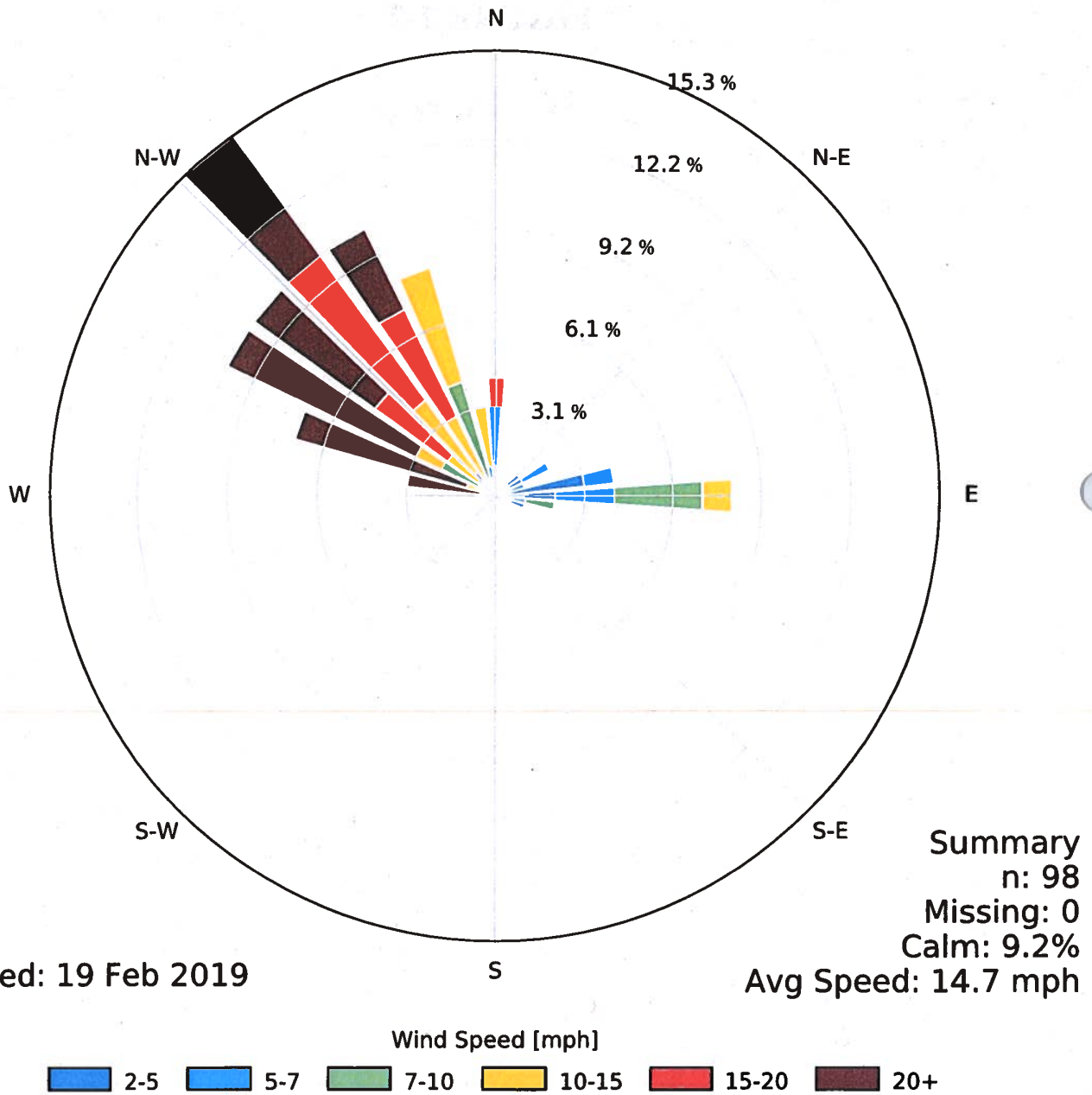
**FIGURE 2-2**

**Wind Rose**





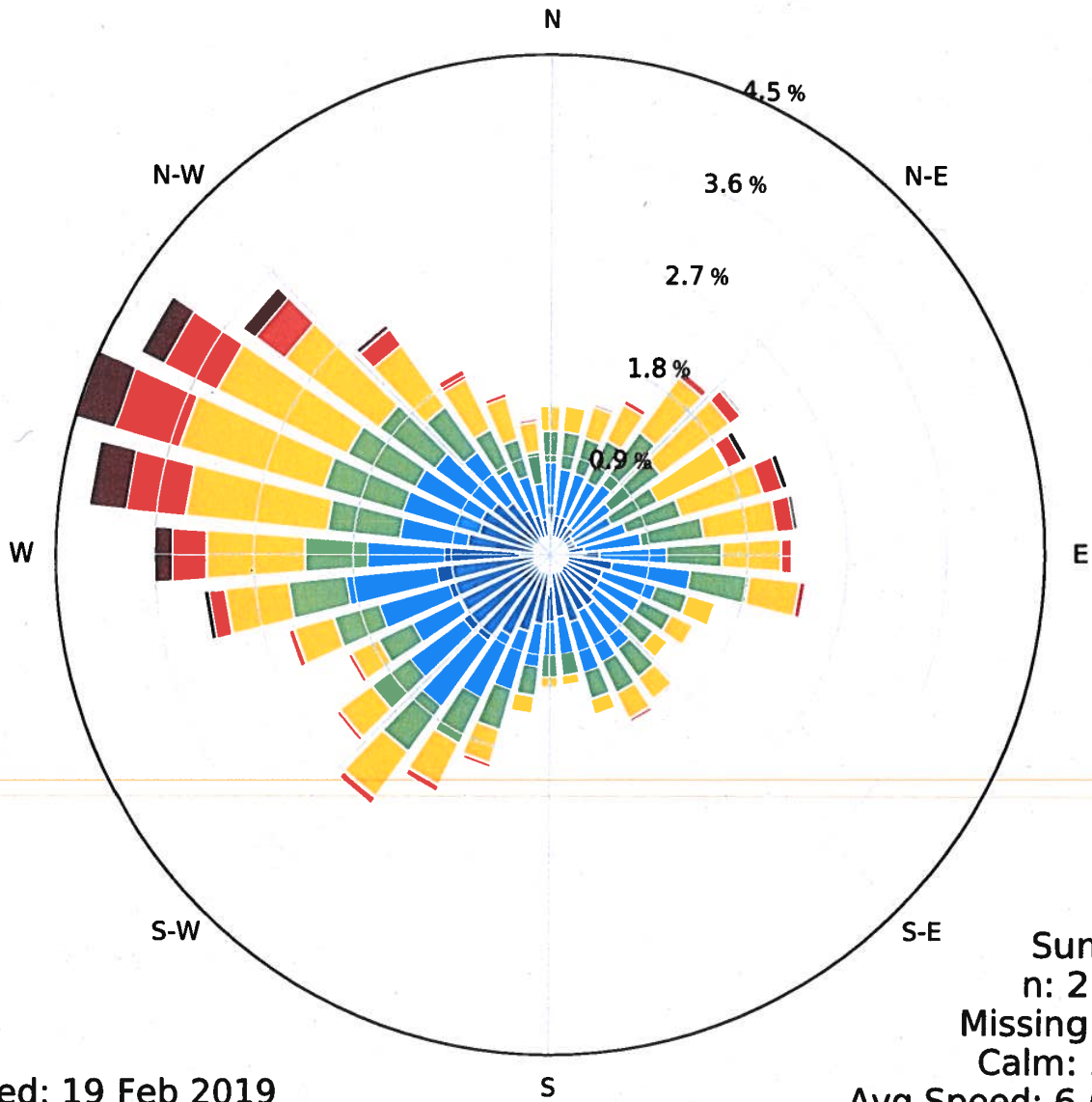
[BWI] BALTIMORE/WASH INTL  
Windrose Plot [All Year]  
Period of Record: 01 Mar 2018 - 04 Mar 2018



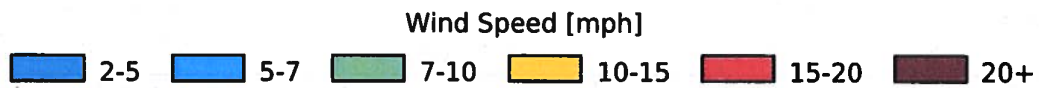
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**[BWI] BALTIMORE/WASH INTL**  
**Windrose Plot [All Year]**  
**Period of Record: 01 Mar 1998 - 01 Mar 2018**



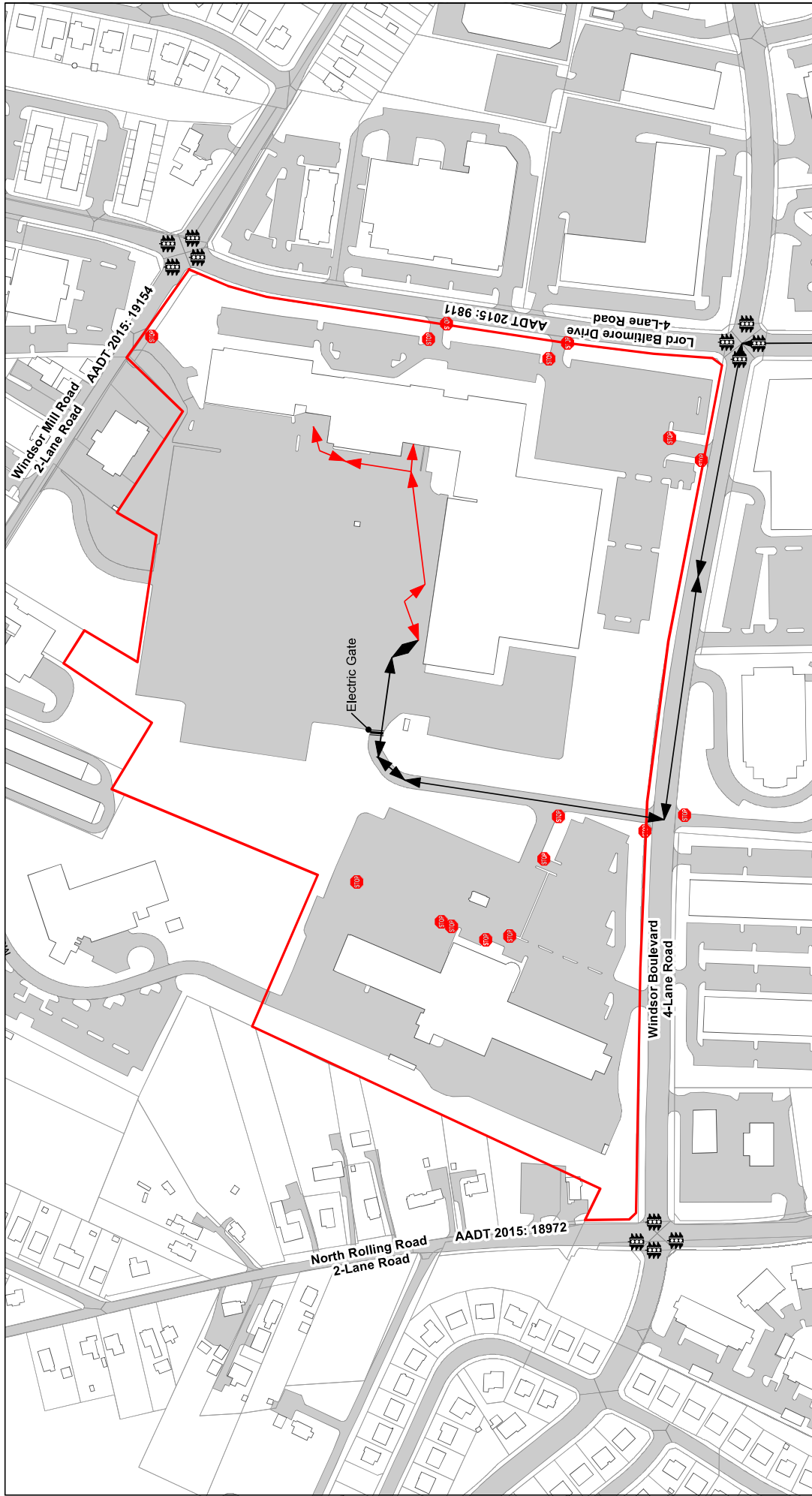
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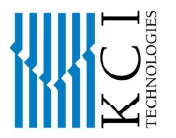
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Figure 2-3A

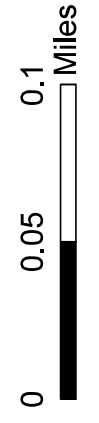
Traffic Pattern Map



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 936 Ridgebrook Road  
 Sparks, MD 21152



Date: 3/8/2018



**Legend**

- Traffic Lights
- Traffic Flow
- Stop Signs
- Inside Traffic
- Parcels
- Roads
- Property Boundary
- Buildings

**FIGURE 2-3A**  
**TRAFFIC PATTERN MAP**  
 RUTHERFORD BUSINESS CENTER  
 PCB WASTE STORAGE FACILITY  
 2900 LORD BALTIMORE DRIVE  
 BALTIMORE, MD 21244

**FIGURE 2-5**

**Facility Photographs**

**BGE PCB WASTE STORAGE  
FACILITY PHOTOGRAPHS**

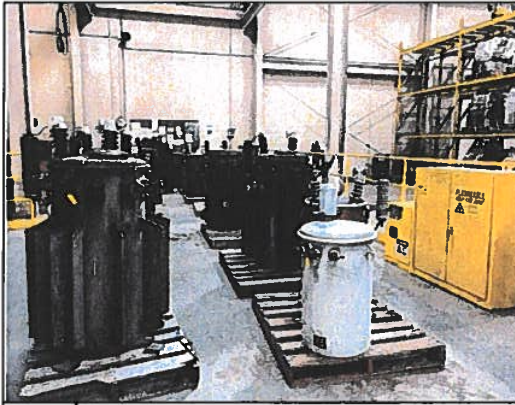


Photo #1: Staging area for transformers which require sampling.



Photo #2: PCB Waste storage container.



Photo #3: Storage area for PCB wastes (transformers).



Photo #4: PCB waste storage tanks.



Photo #5: Tank #643 used for the storage of PCB wastes 0-49 ppm.

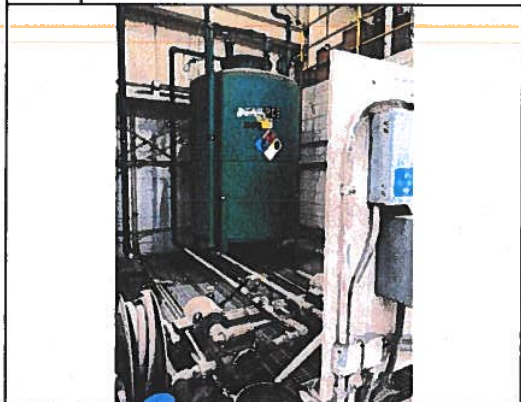


Photo #6: Tank #642 used for the storage of PCB wastes 50-499 ppm.



**BGE PCB WASTE STORAGE  
FACILITY PHOTOGRAPHS**

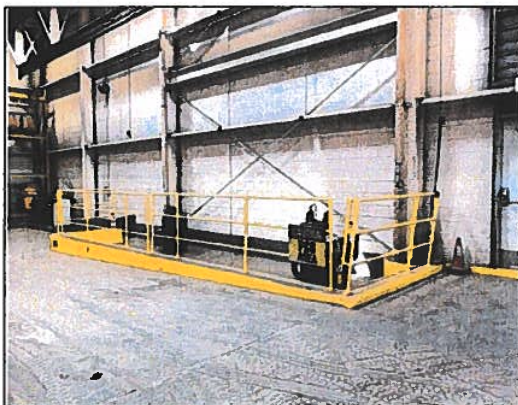


Photo #7: PCB waste storage area for drums and transformers.



Photo #8: PCB waste storage area for drums and transformers.



Photo #9: Storage area for used spill materials and PPE contaminated with PCBs.



Photo #10: Transformer storage within the loading/unloading bays.



Photo #11: Transformer storage within the loading/unloading bays.



Photo #12: Transformer storage on the drainage grate to the vaulted AST.

**BGE PCB WASTE STORAGE  
FACILITY PHOTOGRAPHS**

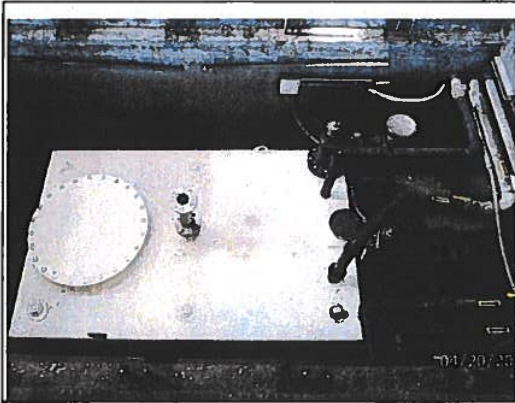


Photo #13: Vaulted AST.



Photo #14: Spill response material within the loading/unloading area.



Photo #15: Spill kit within the loading/unloading area.

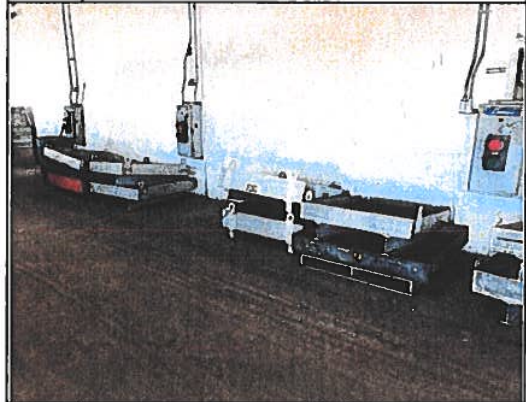


Photo #16: Containment trays for leaking transformers.



Photo #17: Transformers drained and loaded onto transport for disposal.

## ATTACHMENT 7

### Process Description and Container Management





#### 4.0 PROCESS INFORMATION

##### 4.1 General Process Information [COMAR 26.13.07.02D(13), (14)]

PCB and non-PCB containing transformers are brought to the RBC Complex for repair or disposal when they are removed from the electrical transmission and distribution system. Once at the facility they are inspected by the Equipment Diagnostic and Repair Unit (EDRU) in order to determine if the equipment will be repaired or disposed. If it is determined that the equipment must be sent for disposal, it is placed at the PCB Waste Storage Facility. Oils within the equipment are sampled according to the procedures outlined in Section 3.0. Once laboratory analysis has been received, the waste oils are containerized, using both containers and aboveground storage tanks (ASTs) according to their respective results and stored until being sent off-site for disposal. Containers used for storage may include the electrical transformer unit or 55-gallon drums. There are two (2) ASTs located at the facility for the storage of PCB and non-PCB wastes. Tank 643 (2,350 gallon AST) is used to store non-PCB wastes which have concentrations of 0 – 49 ppm and Tank 642 (1,090 gallon AST) is used to store PCB wastes which have a concentration of 50 – 500 ppm. A third, vaulted AST, Tank 814 (550 gallons) is located in the loading dock area of the Facility and is used for storing PCB oils captured from leaking equipment. More information regarding the containers and AST is discussed in the Sections below.

The maximum storage capacity of PCB wastes at the facility is 45,000 gallons. The estimated average annual quantity of wastes stored and handled at the Facility is shown in Table 4-1 below. At no time will the volume of any single waste, or combination of wastes, exceed the maximum storage capacity.

**Table 4-1: Estimated Annual Average of Wastes**

Waste	Amount
PCB Equipment	39 units
PCB Contaminated Equipment	317 units
Drums (55-gallon)	153 drums
PCB Contaminated Oil	5,711 gallons
Non-PCB Oil	105,438 gallons

In accordance with 40 CFR 761.65(c)(7)(ii), the Facility has prepared a Spill Prevention, Control and Countermeasures (SPCC) Plan which conforms to the requirements of 40 CFR 112. A copy of the SPCC Plan for the RBC Complex is included in *Appendix C*. All oil-filled PCB transformers, drained transformers, and solid PCB wastes in containers are stored inside in the PCB Waste Storage Facility.

PCB items are dated on the item when they are removed from service for disposal. Storage is managed so that items can be located by this date. Records are maintained for each batch of PCB wastes added to the container including the date the batch was added, and the date, quantity, and disposition of any batch of PCB waste removed from the container.

##### 4.2 Containers [COMAR 26.13.07.02-2]

###### 4.2.1 Containers with Free Liquid

The steel rack storage system is capable of expansion to four levels high and is able to accommodate either two pallets of four 55-gallon drums, one of the 41 cubic foot wooden or 54 cubic foot steel boxes, or other pallet-mounted electrical equipment or containers of equivalent volume, in each "bay" or section. There is also additional space available for floor-level storage of large non-leaking electrical equipment,

such as transformers and circuit breakers, as well as a separate area for culling and processing the equipment that is entering the facility directly from the field locations.

#### **4.2.2 Description of Containers [COMAR 26.13.07.02D(13)]**

Steel 55-gallon drums meeting U.S. DOT 17C (UN# 1A2-Y1.5-100 1.3MM) or 17E (UN# 1A1-Y1.8-300) specifications, as required by USEPA's PCB regulations (40 CFR 761.65(c)(6)), are used at the Facility to store liquid and solid PCB wastes, respectively. The 17C drums (both body and head) are constructed of 16 gauge (0.0598 in.) steel sheet; the head and body of 17E drums are constructed of 18 gauge (0.0478 in.) sheet steel.

All transformers are drained prior to shipping off site for disposal unless the transformer or equipment contains 500 ppm or more PCBs (Askarel). These items are sent off site for treatment and disposal. DOT-approved 85-gallon over-pack drums are used to store and ship leaking containers. All containers are constructed of materials that are compatible with the stored, PCB-contaminated wastes. Reusable steel boxes may also be used to store and transport leaking capacitors and other leaking electrical equipment. The steel boxes are constructed with hot-rolled sheet steel with a removable top. All steel box joints are constructed using a continuous oil-tight weld.

Other containers, such as DOT approved pallet boxes, are used to store and ship other PCB equipment, including capacitors, switchgear, and fluid-filled caps which cannot be emptied prior to shipping offsite for disposal. Pallet boxes are plastic-lined cardboard containers which are mounted to wooden supports. Specifications for the pallet boxes are included as Figure 4-1.

#### **4.2.3 Container Management Practices [COMAR 26.13.07.02D(13)]**

All oil-filled electrical equipment and containers from BGE's generating, transmission and distribution systems and gas supply system are received at the PCB Waste Storage Facility. Prior to transport to the storage facility from the field location, PCB oil, debris, and equipment are either placed in 55-gallon drums or cardboard, wooden, or steel boxes and sealed for shipment, or are secured on wooden pallets (typically used for intact equipment transport). Containers are labeled according to US DOT regulations for transporting hazardous materials. Shipping documents are reviewed and drums or other containers are checked by transporting personnel prior to shipping to the RBC PCB Waste Storage facility. Upon arrival at the storage facility, shipments are reviewed by warehouse personnel for drum content and condition, pursuant to the requirements of COMAR 26.13.05.02D(2)(b). Warehouse personnel open the containers once to verify contents after the containers are received at the storage facility. Transfer of drums and other containers to the storage areas is performed by a forklift truck. The drums are stored on pallets and placed on a pallet rack to elevate them from contact with standing liquids. Aisle space of at least two feet is maintained at all times and the container storage area is inspected daily. Containers and equipment are marked with the "Date placed in storage" upon receipt at the storage facility.

All received materials are placed indoors in the "culling area"- STORAGE AREA #1 (Figure 4-2) for sorting, inventory and evaluation. Containers are inventoried, dated, verified for content, and stored in either the PCB (STORAGE AREA #2) or Non-PCB (STORAGE AREA #3) storage areas. Oil-filled electrical equipment is inventoried, sorted by PCB classification, and sampled if necessary. The PCB-contaminated (50 to 500 ppm PCBs) and non-PCB (less than 50 ppm PCBs) oils are pumped from the equipment into the 1,090- or 2,350-gallon storage tanks, respectively. The drained equipment is then evaluated for electrical integrity, after which it is either transported to the Electric Test building for repair or it is placed in the appropriate storage area in the Facility prior to shipment for recycling (metals recovery). Non-leaking, oil-filled PCB equipment (greater than or equal to 500 ppm PCBs) is identified as "PCB" and placed in the PCB storage area (AREA #2) for future shipment for disposal.

Fluid from leaking PCB equipment is removed into a PCB-labeled drum. The equipment is then plugged and/or repaired, if possible, to prevent further leaks. The equipment carcass and/or drum(s) of fluid are then placed into the PCB storage area for future disposal. All equipment and containers tagged "for disposal" are also dated with "Date Placed Into Storage For Disposal".

#### **4.3 Aboveground Storage Tanks [COMAR 26.13.07.02-03B]**

##### **4.3.1 Description of Tanks [COMAR 26.13.07.02-3B(1, 3, 5)]**

There are three (3) aboveground tanks (Highland Tank and Mfg Co.) in the PCB Storage Facility: one 1,090-gallon tank (Tank 642) for PCB-contaminated oil, one 2,350-gallon tank (Tank 643) for non-PCB oil, and one 550-gallon vaulted tank (Tank 814) for leaking oil-filled transformers or other electrical equipment that are assumed to be PCB-contaminated. The tank locations within the Facility are noted in Figure 4-2 and also in the Figures in Section 2.0.

The tanks are constructed according to NFPA Standard Number 30 and American Petroleum Institute Publication 1615 specifications, with 7-gauge (0.188 in) mild carbon steel, with lap-welded seams and 3/16" (0.188 inch) dished heads. The 1,090-gallon tank (Tank 642) is 60 inches in diameter and 96 inches high; the 2,350-gallon tank (Tank 643) is 72 inches in diameter and 144 inches high. The 550 gallon vaulted tank (Tank 814) is sized 80 inches x 50 inches x 32 inches and is a double-walled tank. All tanks have access ports for visual inspections of the interior of the tank. Tanks 642 and 643 are supported on legs over two (2) approximately 2,600 gallon containment sump. Diagrams of the tanks and other related information are included in *Appendix D* and *Appendix E*.

The three (3) tanks in the PCB Waste Storage Facility are all aboveground and located either inside the building (Tanks 642 and 643) or under the loading dock canopy within the loading dock (Tank 814). Oil from electrical equipment is pumped to the tanks via overhead piping. Oil from leaking electrical equipment placed on the collection pan on the loading dock flows to the 550-gallon vaulted tank (Tank 814) located directly below the pan. All three (3) tanks are vented underneath the dock canopy within the loading area secondary containment to prevent rainwater incursion into the tanks or release of used oil to the rooftop or surrounding area.

The tanks are equipped with internal tank gauge/sensor devices, with both visual and audible alarms when the tank volume reaches 90% capacity. The secondary containment sump directly under Tanks 642 and 643 is equipped with a liquid sensor, also connected to an alarm. The interstitial space of Tank 814 is equipped with a liquid sensor alarm. In addition, the vault which surrounds Tank 814 is also equipped with a liquid sensor alarm. The tanks are electronically monitored by a VeederRoot system. The VeederRoot unit is located on the interior of the building adjacent to Tanks 642 and 643 and is equipped with a visual and audible alarm. A tank overfill alarm, both visual and audible, is present on the exterior of the building for Tank 814. The alarm located on the exterior of the building adjacent to the tank's location.

##### **4.3.2 Tank Corrosion and Erosion [COMAR 26.13.07.02-3B(2, 7)]**

The three aboveground tanks are painted with a rustproof-type paint to retard external corrosion. No external cathodic protection is provided for these tanks, since they are not installed underground. Internal corrosion is not expected to occur due to the non-corrosive property of the mineral oil (neutral pH - see *Appendix A* MSDS for ExxonMobile Univolt 60) stored in the tanks, therefore the tanks are not internally coated.

### 4.3.3 Tank Management Practices [COMAR 26.13.07.02-3B(5)]

The tanks are inspected each day of use for tank condition, leaks, etc. The tanks are inspected externally every three (3) years (triennial) for coating integrity, cracks, leaks, corrosion, structural integrity, and general condition. The aboveground tanks will be inspected internally every five (5) years for internal cracks, leaks, corrosion, structural integrity, and general internal condition. Applicable testing results for 2014 are included in *Appendix E*. Refer to Section 5.0 for more information on inspection procedures.

There are two (2) identical dry containment sumps below the 1,090- and 2,350- gallon ASTs adjacent to the culling area and office. The dry sump surfaces are covered with an impervious two-part, high-build, 100% solids, pigmented, self-leveling, epoxy floor system coating; tradename STONHARD. The epoxy floor coating is chemically resistant to insulating oils (mineral, silicone, askarel), water, and acids. The sumps are approximately 4.17 feet by 12 feet by 7.33 feet in size and have the capacity to hold approximately 2,600 gallons. There is an 8 foot span of 2 inches by 3/16 inches of galvanized steel grating above each containment sump to capture any liquids from the tank. Each sump is enclosed by concrete enforced #4 rebar. There is a pit liquid sensor alarm in each of the sumps. There are no drainage valves or discharge points within the sumps. Any spills from the ASTs would remain in the sump until removed by facility personnel via pumps and/or absorbent materials.

There is one 550- gallon vaulted tank located in the loading dock. The vaulted tank serves as tertiary containment. The dimensions of the vaulted tank are approximately 14 feet by 6.5 feet by 1.67 feet and have the capacity to hold 1,134 gallons. As a result of the 2014 AST inspections, a recommendation was made to replace the 550 gallon single-walled AST. The AST was replaced in 2016 with a double-walled 550-gallon Highland Tank (Tank 814). See *Appendix E* for a diagram of the tank. No other corrective actions were noted during the 2014 AST inspections.

## 4.4 Secondary Containment System Design and Operation [COMAR 26.13.07.02-2(B) & -3B(9)]

### 4.4.1 Requirement for Base to Contain Liquids [COMAR 26.13.05.09H(1)(a)]

The PCB Waste Storage Facility has a bentonite-underlaid, depressed, reinforced, monolithic concrete floor structure with a six (6) inch curb around the perimeter of the storage facility interior (See construction drawing in *Appendix D*). All concrete floor, curb, and dry sump surfaces are covered with an impervious two-part, high-build, 100% solids, pigmented, self-leveling, epoxy floor system coating; tradename STONHARD. The epoxy floor coating is chemically resistant to insulating oils (mineral, silicone, askarel), water, and acids. (potential of spills from battery-powered forklifts). See *Appendix A* for product information and MSDS's for the STONHARD products used in the facility floor coating.

There are eight (8) separate secondary containment areas in the Facility (Figure 4-2). These are: one "culling" area (STORAGE AREA #1) near the roll-up doors, one large PCB waste storage area at the rear of the building (STORAGE AREA #2), one non-PCB waste storage area in the middle of the building (STORAGE AREA #3), two identical dry containment sumps below the 1,090- and 2,350-gallon aboveground tanks, one vaulted tank (the vault serves as secondary containment) located in the loading dock, and two separate, sloped truck dock aprons. The truck aprons are designed to accommodate two (2) trucks per apron (one per bay), for a total of four (4) trucks maximum in the facility loading dock aprons. Access into each of Areas 1, 2, & 3 is over sloped gradients serving as ramps for forklift traffic.



**4.4.2. Containment System Capacity [COMAR 26.13.05.09H(1)(c); 26.13.07.02-2B(1)(c); 40 CFR 761.65(b)(1)(ii)]**

The container capacity and secondary containment capacity of the PCB Waste Storage Facility's waste management areas are as follows:

**Table 4-2: Secondary Containment Area Capacities**

Area	Area Capacity (gallons)	
	Container	Secondary
Storage Area #1 (Culling)	2,980	4,858
Storage Area #2 (PCB)	42,020	17,018
Storage Area #3 (non-PCB)	7,040	2,219
1090-gallon AST (PCB)	1,090	2,600
2350-gallon AST (non-PCB)	2,350	2,600
Vaulted AST	550	1,134
Concrete truck aprons (each)	12,000	15,742

<sup>1</sup>Culling area expected 2-day capacity based on 40 pole-type transformers at 12 gallons, two (2) switchgear at 300 gallons, six (6) 3-phase transformers at 300 gallons, and 100 gallons for miscellaneous equipment. Total equal to approximately 2,980 gallons of oil-filled equipment in the culling area during a 2-day period.

<sup>2</sup>Truck apron maximum (storage) volume of 12,000 gallons based on two (2) 6,000-gal tank trucks parked on each apron. BGE does not anticipate that this scenario would ever occur.

The combined secondary containment capacity of Storage areas 1, 2 & 3 equals 24,094 gallons, approximately 54 percent of the total maximum designed volume of waste stored in the Facility (45,000 gallons). This is greater than the requirement that the containment volume must be greater than 25 percent of the total internal volume of all PCB articles. The truck aprons have a total combined capacity of 31,484 gallons. Calculations for the secondary containment capacities are included in Figure 4-3.

**4.4.3 Containment System Drainage [COMAR 26.13.05.09H(1)(b) & 26.13.07.02-2b(1)(b)]**

The containment systems at the Facility are not equipped with drainage valves or other discharge points. Any spills from stored containers or the storage tanks would remain in the containment system until removed by facility personnel via pumps and/or absorbent materials.

**4.4.4 Removal of Liquids from Containment Systems [COMAR 26.13.05.09H(3); 26.13.07.02-2B(1)(e)]**

The containment system(s) will contain any spilled materials inside the PCB Waste Storage Facility. No precipitation will accumulate in those indoor areas. Any spilled material will be recovered using pumps and/or absorbent materials. Spill clean-up procedures will be utilized as outlined in the Oil and PCB Response Procedures – EWP-220-1 (*Appendix G*).

**4.4.5 Containers Without Free Liquid [COMAR 26.13.07.02-2C; 26.13.05.09H(4)]**

Storage containers are opened for inspection upon receipt at the Storage Facility. Location of containers inside the Storage Facility is controlled via computerized tracking system. Inspections of container areas are conducted to check for free liquids or leaking containers. See Section 5.2 for information regarding inspections.

**4.4.6 Test for Free Liquids [COMAR 26.13.07.02]**

PCB waste containers with spill cleanup debris or other liquid-solid PCB waste mixtures are opened at the storage facility. Visual verification of the presence or absence of free liquids is conducted for all containers storing non-liquid material. Containers that contain a mixture of both solids and visible free liquids are filled with absorbent to stabilize and solidify the liquid fraction, prior to storage in the facility.

**4.5 Wastes Piles [COMAR 26.13.07.02-5]**

This facility does not have any waste piles for PCB waste management.

**4.6 Surface Impoundments [COMAR 26.13.07.02-4]**

This facility does not have any surface impoundments for PCB waste management.

**4.7 Incinerators [COMAR 26.13.07.02-6]**

This facility does not have any incinerators for PCB waste management.

**4.8 Land Treatment [COMAR 26.13.07.02-7]**

This facility does not have any land treatment units for PCB waste management.

**4.9 Landfills [COMAR 26.13.07.02-8]**

This facility does not have any landfills for PCB waste management.

**4.10 Ground Water Monitoring Systems**

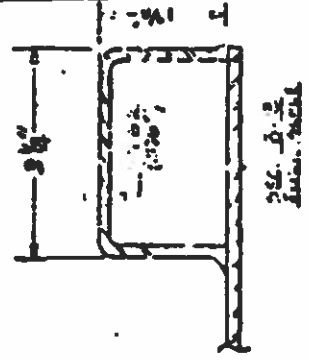
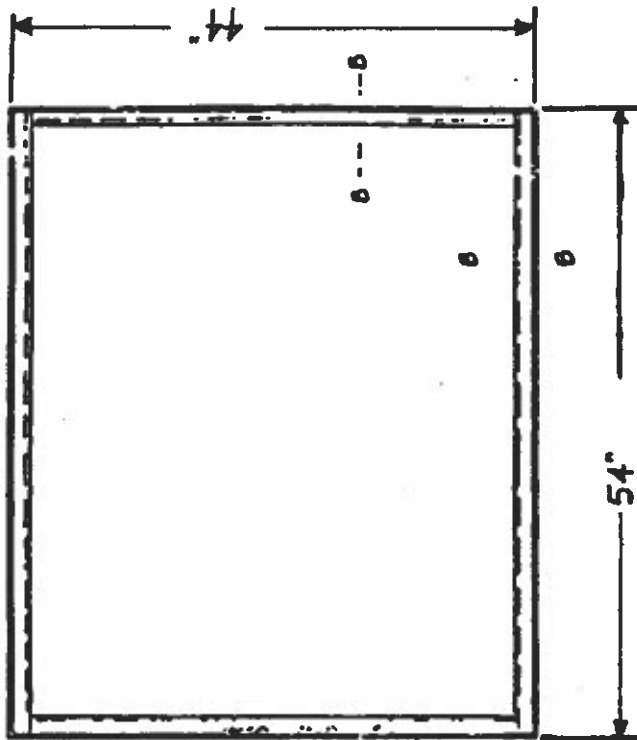
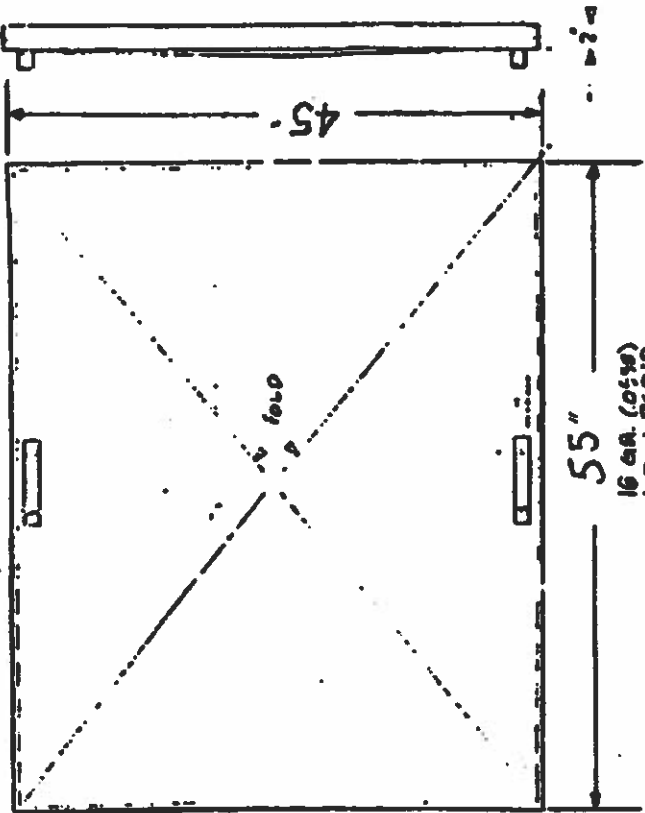
This facility does not have any surface impoundments, waste piles, landfills or injection wells, therefore groundwater monitoring systems are not required. There are no known active groundwater monitoring wells within one-quarter (1/4) mile of the facility.

**FIGURE 4-1**

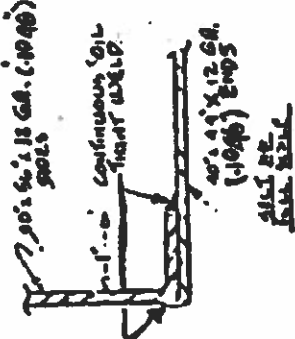
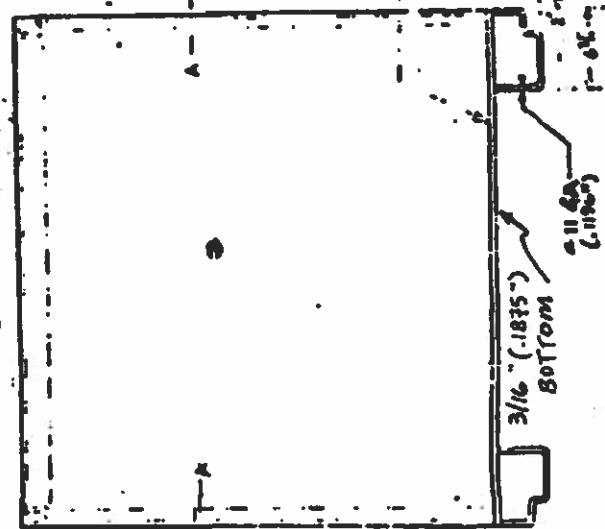
**Shipping Container Information**

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2x 1/4" Bar Model 2 - 2-2-0.



Non. for channels & Bottom runners security Mark  
 Markers for Box



NOTE: WELD BOTTOM  
 2x 1/4" Bar with  
 Continuous Oil  
 Tight Weld

REV. (1)		DATE		BY	
1	REV. 1	10/10/50	10/10/50	10/10/50	10/10/50
2	REV. 2	10/10/50	10/10/50	10/10/50	10/10/50
3	REV. 3	10/10/50	10/10/50	10/10/50	10/10/50
4	REV. 4	10/10/50	10/10/50	10/10/50	10/10/50
5	REV. 5	10/10/50	10/10/50	10/10/50	10/10/50

SPACE & WEIGHT DATA

10/10/50

**FIGURE 4-2**

Storage Area Location and Dimension Diagrams

DATE 09/09/05  
Revision 0  
D

Figure 6. Schematic drawing of the PCB Waste Storage facility, showing safety and emergency equipment locations.

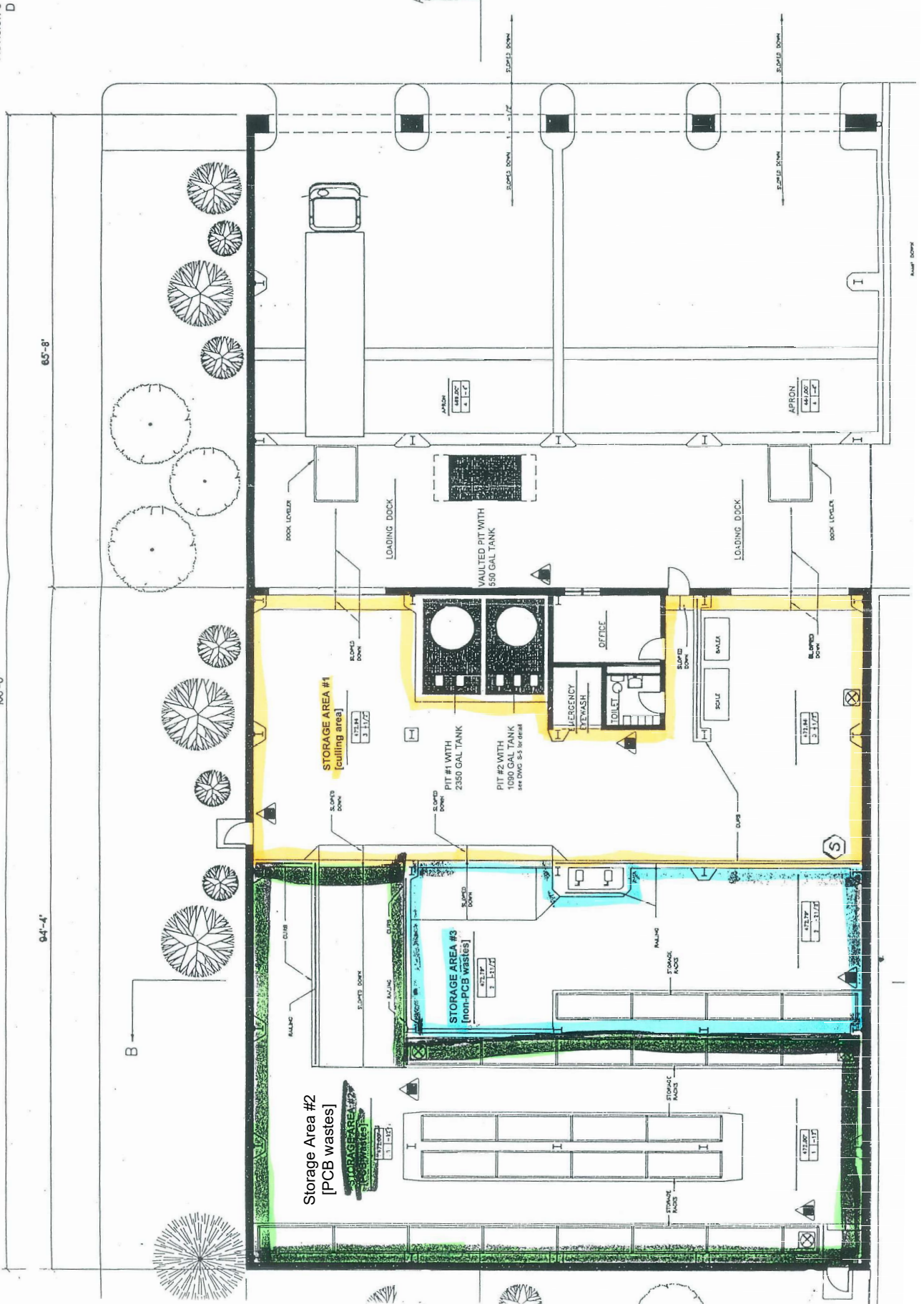
**PARSONS**  
Architects • Planning • Interior Design  
224 Maryland Avenue  
Baltimore, MD 21201  
(410) 333-1500

-  SAFETY EQUIPMENT CABINET
-  SPILL CLEANUP MATERIALS LOCATIONS
-  20A-80BC 20 lb DRYCHEM EXTINGUISHER

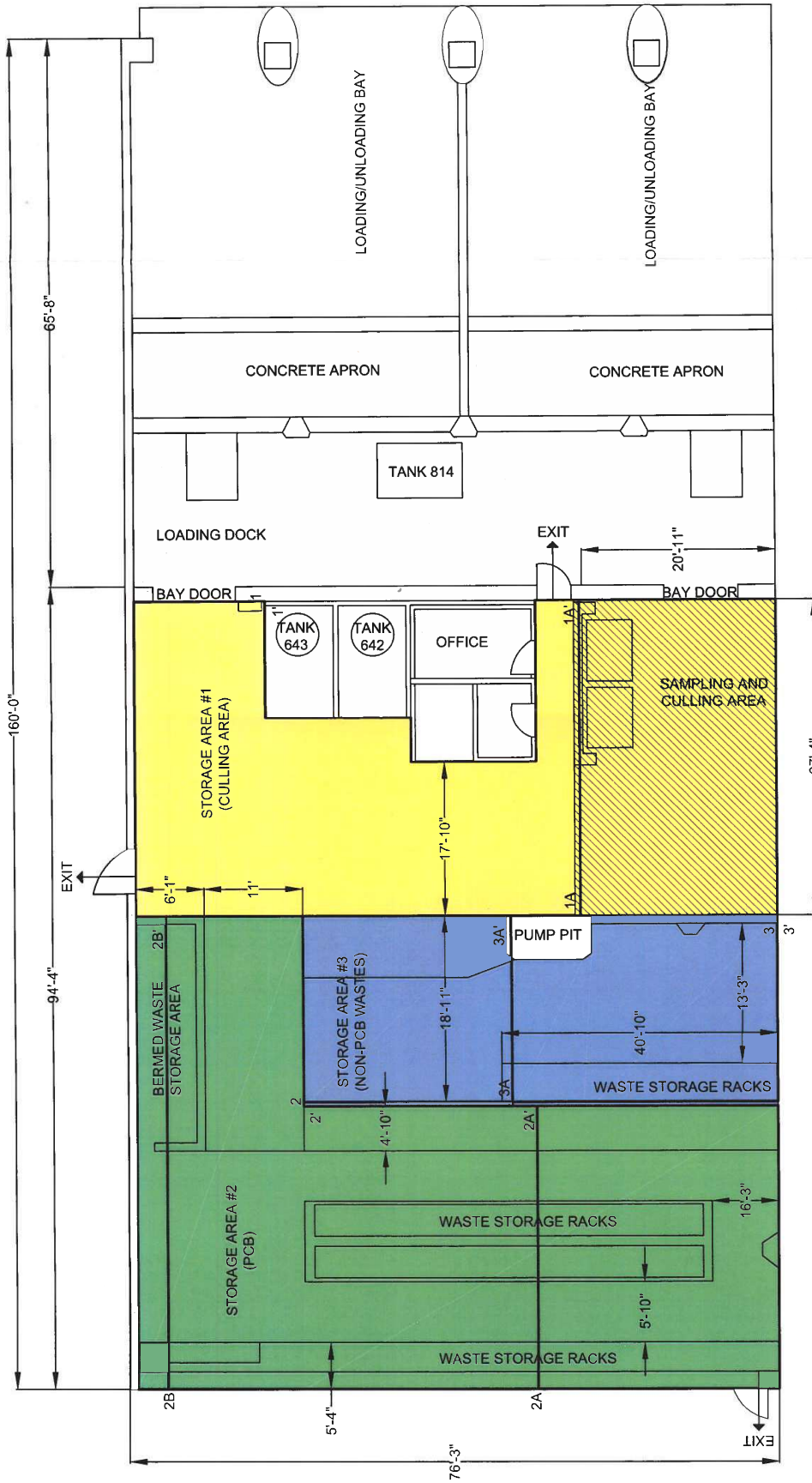
FLOOR PLAN

BALTIMORE GAS AND ELECTRIC

WASTE TRANSFER FACILITY  
RUTHERFORD BUSINESS CENTER  
BALTIMORE, MARYLAND



NO.	DATE	DESCRIPTION

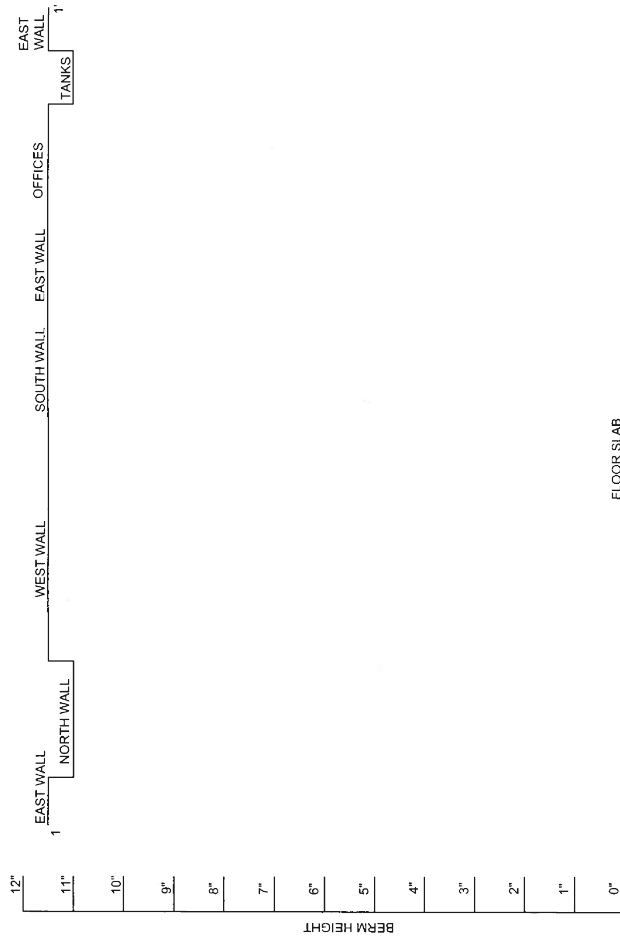
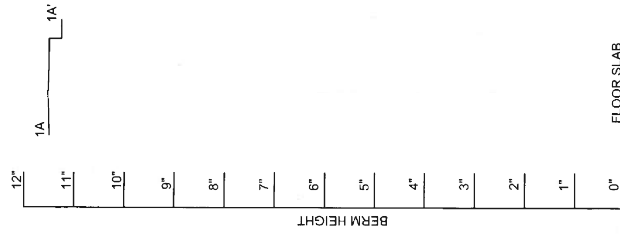


DRAWING

**FIGURE 4-2B**  
**STORAGE AREA DIMENSIONS**  
 RUTHERFORD BUSINESS CENTER  
 PCB WASTE STORAGE FACILITY  
 2900 LORD BALTIMORE DRIVE  
 BALTIMORE, MD 21244

DATE: APRIL 2019  
 SCALE: NTS  
 DRAWN BY: MW  
 CHECKED BY: CK


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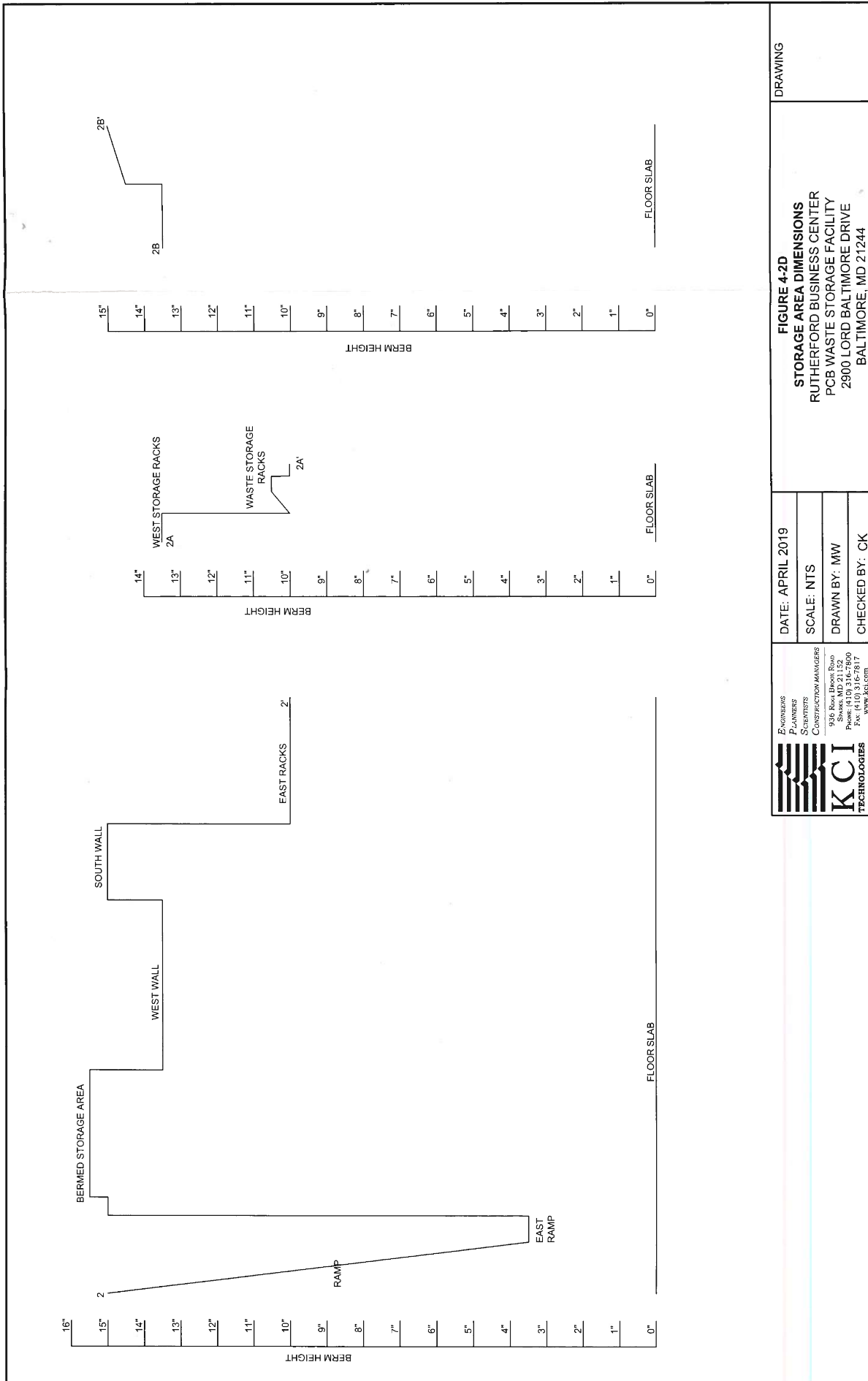


DATE: APRIL 2019  
 SCALE: NTS  
 DRAWN BY: MW  
 CHECKED BY: CK

**FIGURE 4-2C**  
**STORAGE AREA DIMENSIONS**  
 RUTHERFORD BUSINESS CENTER  
 PCB WASTE STORAGE FACILITY  
 2900 LORD BALTIMORE DRIVE  
 BALTIMORE, MD 21244

DRAWING



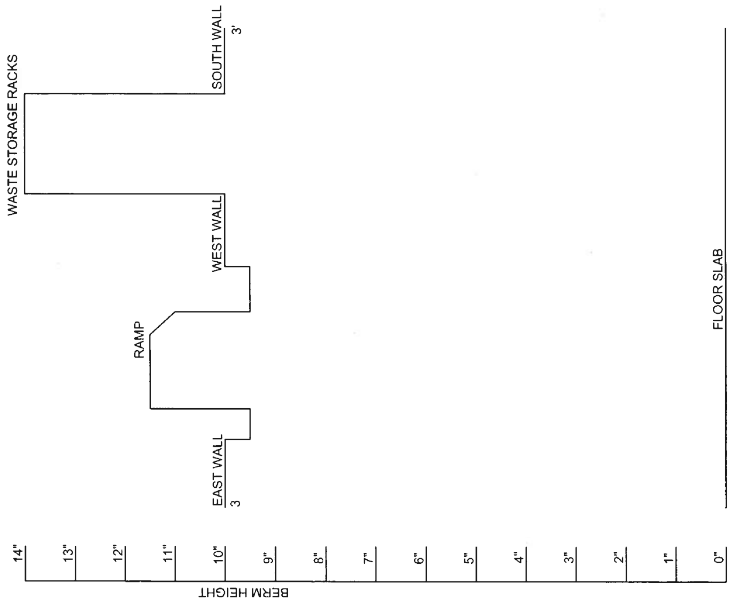


DRAWING

**FIGURE 4-2D**  
**STORAGE AREA DIMENSIONS**  
 RUTHERFORD BUSINESS CENTER  
 PCB WASTE STORAGE FACILITY  
 2900 LORD BALTIMORE DRIVE  
 BALTIMORE, MD 21244

DATE: APRIL 2019  
 SCALE: NTS  
 DRAWN BY: MW  
 CHECKED BY: CK


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DRAWING

**FIGURE 4-2E**  
**STORAGE AREA DIMENSIONS**  
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 PCB WASTE STORAGE FACILITY  
 2900 LORD BALTIMORE DRIVE  
 BALTIMORE, MD 21244

DATE: APRIL 2019  
 SCALE: NTS  
 DRAWN BY: MW  
 CHECKED BY: CK

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ATTACHMENT 8  
Part A Permit Application





<p><b>SEND COMPLETED</b>  <b>FORM TO:</b>                  the Appropriate State or                  EPA Regional Office.</p>	<p>United States Environmental Protection Agency</p> <p><b>RCRA SUBTITLE C SITE IDENTIFICATION FORM</b></p>		
<p><b>1. Reason for Submittal</b>                  (See Instructions on page 14.)</p> <p>MARK ALL BOX(ES) THAT APPLY</p>	<p><b>Reason for Submittal:</b></p> <p><input type="checkbox"/> To provide Initial Notification of Regulated Waste Activity (to obtain an EPA ID Number for hazardous waste, universal waste, or used oil activities)</p> <p><input checked="" type="checkbox"/> To provide Subsequent Notification of Regulated Waste Activity (to update site identification information)</p> <p><input type="checkbox"/> As a component of a First RCRA Hazardous Waste Part A Permit Application</p> <p><input type="checkbox"/> As a component of a Revised RCRA Hazardous Waste Part A Permit Application (Amendment # _____)</p> <p><input type="checkbox"/> As a component of the Hazardous Waste Report</p>		
<p><b>2. Site EPA ID Number</b>                  (page 15)</p>	<p>EPA ID Number</p> <p style="text-align: center;">  M   D   D   9   8   0   8   3   2   1 0   6   7  </p>		
<p><b>3. Site Name</b>                  (page 15)</p>	<p>Name: Rutherford Business Center</p>		
<p><b>4. Site Location Information</b>                  (page 15)</p>	<p>Street Address: 7210 Windsor Boulevard</p> <p>City, Town, or Village: Baltimore State: MD</p> <p>County Name: Baltimore Zip Code: 21244</p>		
<p><b>5. Site Land Type</b>                  (page 15)</p>	<p>Site Land Type: <input checked="" type="checkbox"/> Private <input type="checkbox"/> County <input type="checkbox"/> District <input type="checkbox"/> Federal <input type="checkbox"/> Indian <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> Other</p>		
<p><b>6. North American Industry Classification System (NAICS) Code(s) for the Site</b>                  (page 15)</p>	<p>A.   2   2   1   1   2   1  </p>	<p>B.   2   2   1   1   2   2  </p>	<p>C.   2   2   1   2   1    </p> <p>D.              </p>
<p><b>7. Site Mailing Address</b>                  (page 16)</p>	<p>Street or P. O. Box: 7210 Windsor Boulevard</p> <p>City, Town, or Village: Baltimore</p> <p>State: MD</p> <p>Country: USA Zip Code: 21244</p>		
<p><b>8. Site Contact Person</b>                  (page 16)</p>	<p>First Name: John</p>	<p>MI: F.</p>	<p>Last Name: Trabert</p>
<p>Phone Number: 410-597-7418</p>		<p>Extension:</p>	<p>Email address:</p>
<p><b>9. Operator and Legal Owner of the Site</b>                  (pages 16 and 17)</p>	<p>A. Name of Site's Operator:                  Baltimore Gas &amp; Electric</p>		<p>Date Became Operator (mm/dd/yyyy):                  02/11/1981</p>
<p>Operator Type: <input checked="" type="checkbox"/> Private <input type="checkbox"/> County <input type="checkbox"/> District <input type="checkbox"/> Federal <input type="checkbox"/> Indian <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> Other</p>			<p>B. Name of Site's Legal Owner:                  Baltimore Gas and Electric</p>
<p>Owner Type: <input checked="" type="checkbox"/> Private <input type="checkbox"/> County <input type="checkbox"/> District <input type="checkbox"/> Federal <input type="checkbox"/> Indian <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> Other</p>		<p>Date Became Owner (mm/dd/yyyy):                  02/11/1981</p>	

9. Legal Owner (Continued) Address	Street or P. O. Box: P.O. Box 1475	
	City, Town, or Village: Baltimore	
	State: MD	
	Country: USA	Zip Code: 21203-1475

10. Type of Regulated Waste Activity  
Mark "Yes" or "No" for all activities; complete any additional boxes as instructed. (See instructions on pages 18 to 21.)

A. Hazardous Waste Activities  
Complete all parts for 1 through 6.

- |   |   |
|---|---|
| <p><input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> 1. Generator of Hazardous Waste<br/>If "Yes", choose only one of the following - a, b, or c.</p> <p><input checked="" type="checkbox"/> a. LQG: Greater than 1,000 kg/mo (2,200 lbs./mo.) of non-acute hazardous waste; or</p> <p><input type="checkbox"/> b. SQG: 100 to 1,000 kg/mo (220 - 2,200 lbs./mo.) of non-acute hazardous waste; or</p> <p><input type="checkbox"/> c. CESQG: Less than 100 kg/mo (220 lbs./mo.) of non-acute hazardous waste</p> <p>In addition, indicate other generator activities.</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> d. United States Importer of Hazardous Waste</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> e. Mixed Waste (hazardous and radioactive) Generator</p> | <p><input checked="" type="checkbox"/> <input type="checkbox"/> 2. Transporter of Hazardous Waste</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/> 3. Treater, Storer, or Disposer of Hazardous Waste (at your site) Note: A hazardous waste permit is required for this activity.</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> 4. Recycler of Hazardous Waste (at your site)</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> 5. Exempt Boiler and/or Industrial Furnace<br/>If "Yes", mark each that applies.</p> <p><input type="checkbox"/> a. Small Quantity On-site Burner Exemption</p> <p><input type="checkbox"/> b. Smelting, Melting, and Refining Furnace Exemption</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/> 6. Underground Injection Control</p> |
|---|---|

B. Universal Waste Activities

1. Large Quantity Handler of Universal Waste (accumulate 5,000 kg or more) [refer to your State regulations to determine what is regulated]. Indicate types of universal waste generated and/or accumulated at your site. If "Yes", mark all boxes that apply:

	<u>Generate</u>	<u>Accumulate</u>
a. Batteries	<input type="checkbox"/>	<input type="checkbox"/>
b. Pesticides	<input type="checkbox"/>	<input type="checkbox"/>
c. Thermostats	<input type="checkbox"/>	<input type="checkbox"/>
d. Lamps	<input type="checkbox"/>	<input type="checkbox"/>
e. Other (specify) _____	<input type="checkbox"/>	<input type="checkbox"/>
f. Other (specify) _____	<input type="checkbox"/>	<input type="checkbox"/>
g. Other (specify) _____	<input type="checkbox"/>	<input type="checkbox"/>

2. Destination Facility for Universal Waste  
Note: A hazardous waste permit may be required for this activity.

C. Used Oil Activities  
Mark all boxes that apply.

1. Used Oil Transporter  
If "Yes", mark each that applies.
- a. Transporter
- b. Transfer Facility
2. Used Oil Processor and/or Re-refiner  
If "Yes", mark each that applies.
- a. Processor
- b. Re-refiner
3. Off-Specification Used Oil Burner
4. Used Oil Fuel Marketer  
If "Yes", mark each that applies.
- a. Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner
- b. Marketer Who First Claims the Used Oil Meets the Specifications

**Description of Hazardous Wastes (See instructions on page 22.)**

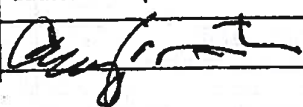
**Waste Codes for Federally Regulated Hazardous Wastes.** Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g., D001, D003, F007, U112). Use an additional page if more spaces are needed.


**B. Waste Codes for State-Regulated (i.e., non-Federal) Hazardous Wastes.** Please list the waste codes of the State-regulated hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed for waste codes.

MX01						
MO01						
MT01						

**12. Comments (See instructions on page 22.)**


**13. Certification.** I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. For the RCRA Hazardous Waste Part A Permit Application, all operator(s) and owner(s) must sign (see 40 CFR 270.10 (b) and 270.11). (See instructions on page 22.)

Signature of operator, owner, or an authorized representative	Name and Official Title (type or print)	Date Signed (mm/dd/yyyy)
	Gregory C. Martin, VP-General Ser. Div.	9/9/2005

PA ID NO: | M | D | I | 9 | 1 | 8 | 1 | 0 | 1 | 8 | 1 | 3 | 1 | 2 | 1 | 0 | 1 | 6 | 1 | 7 | 1

OMB #: 2050-0034 Expires 11/30/2005

United States Environmental Protection Agency  
**HAZARDOUS WASTE PERMIT INFORMATION FORM**

I. Facility Permit Contact (See Instructions on page 23)	First Name: John	MI: E.	Last Name: Trabert
	Phone Number: 410-597-7418		Phone Number Extension:
II. Facility Permit Contact Mailing Address (See Instructions on page 23)	Street or P.O. Box: 7210 Windsor Boulevard		
	City, Town, or Village: Baltimore		
	State: MD		
	Country: USA	Zip Code: 21244	
Operator Mailing Address and Telephone Number (See Instructions on page 23)	Street or P.O. Box: 7210 Windsor Boulevard		
	City, Town, or Village: Baltimore		
	State: MD		
	Country: USA	Zip Code: 21244	Phone Number: 410-597-7622
Legal Owner Mailing Address and Telephone Number (See Instructions on page 23)	Street or P.O. Box: P.O. Box 1475		
	City, Town, or Village: Baltimore		
	State: MD		
	Country: USA	Zip Code: 21203-1475	Phone Number: 410-597-7422
Facility Existence Date (See Instructions on page 24)	Facility Existence Date (mm/dd/yyyy): 02/11/1981		

Other Environmental Permits (See Instructions on page 24)

A. Permit Type (Enter code)	B. Permit Number	C. Description

Nature of Business (Provide a brief description; see instructions on page 24)

Primarily engaged in transmission and distribution of electrical energy, and distribution of natural gas in the Central Maryland area.



1985 Codes and Design Capacities (See Instructions on page 24) - Enter information in the Sections on Form Page 3.

**A. PROCESS CODE** - Enter the code from the list of process codes in the table below that best describes each process to be used at the facility. Fifteen lines are provided for entering codes. If more lines are needed, attach a separate sheet of paper with the additional information. For "other" processes (i.e., D99, S99, T04 and X99), enter the process information in Item 9 (including a description).

**B. PROCESS DESIGN CAPACITY** - For each code entered in Section A, enter the capacity of the process.

- 1. AMOUNT** - Enter the amount. In a case where design capacity is not applicable (such as in a closure/post-closure or enforcement action) enter the total amount of waste for that process.
- 2. UNIT OF MEASURE** - For each amount entered in Section B(1), enter the code in Section B(2) from the list of unit of measure codes below that describes the unit of measure used. Select only from the units of measure in this list.

**C. PROCESS TOTAL NUMBER OF UNITS** - Enter the total number of units for each corresponding process code.

PROCESS CODE	PROCESS	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY	PROCESS CODE	PROCESS	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
	<b>Disposal:</b>			<b>Treatment (continued):</b>	
D79	Underground Injection Well Disposal	Gallons; Liters; Gallons Per Day; or Liters Per Day	T81	Cement Kiln	For T81-T93;
D80	Landfill	Acre-feet; Hectare-meter; Acres; Cubic Meters; Hectares; Cubic Yards	T82	Lime Kiln	
D81	Land Treatment	Acres or Hectares	T83	Aggregate Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; Btu Per Hour; or Million Btu Per Hour
D82	Ocean Disposal	Gallons Per Day or Liters Per Day	T84	Phosphate Kiln	
D83	Surface Impoundment Disposal	Gallons; Liters; Cubic Meters; or Cubic Yards	T85	Coke Oven	
D99	Other Disposal	Any Unit of Measure in Code Table Below	T86	Blast Furnace	
	<b>Storage:</b>		T87	Smelting, Melting, or Refining Furnace	
S01	Container	Gallons; Liters; Cubic Meters; or Cubic Yards	T88	Titanium Dioxide Chloride Oxidation Reactor	
S02	Tank Storage	Gallons; Liters; Cubic Meters; or Cubic Yards	T89	Methane Reforming Furnace	
	Waste Pile	Cubic Yards or Cubic Meters	T90	Pulping Liquor Recovery Furnace	
	Surface Impoundment Storage	Gallons; Liters; Cubic Meters; or Cubic Yards	T91	Combustion Device Used In The Recovery Of Sulfur Values From Spent Sulfuric Acid	
S05	Drip Pad	Gallons; Liters; Acres; Cubic Meters; Hectares; or Cubic Yards	T92	Halogen Acid Furnaces	
S06	Containment Building Storage	Cubic Yards or Cubic Meters	T93	Other Industrial Furnaces Listed In 40 CFR §260.10	
S99	Other Storage	Any Unit of Measure in Code Table Below	T94	Containment Building - Treatment	Cubic Yards; Cubic Meters; Short Tons Per Hour; Gallons Per Hour; Liters Per Hour; Btu Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Metric Tons Per Day; Gallons Per Day; Liters Per Day; Metric Tons Per Hour; or Million Btu Per Hour
	<b>Treatment:</b>			<b>Miscellaneous (Subpart X):</b>	
T01	Tank Treatment	Gallons Per Day; Liters Per Day	X01	Open Burning/Open Detonation	Any Unit of Measure in Code Table Below
T02	Surface Impoundment Treatment	Gallons Per Day; Liters Per Day	X02	Mechanical Processing	Short Tons Per Hour; Metric Tons Per Hour; Short Tons Per Day; Metric Tons Per Day; Pounds Per Hour; Kilograms Per Hour; Gallons Per Hour; Liters Per Hour; or Gallons Per Day
T03	Incinerator	Short Tons Per Hour; Metric Tons Per Hour; Gallons Per Hour; Liters Per Hour; Btu Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Gallons Per Day; Liters Per Day; Metric Tons Per Hour; or Million Btu Per Hour	X03	Thermal Unit	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; Btu Per Hour; or Million Btu Per Hour
T04	Other Treatment	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; Btu Per Hour; Gallons Per Day; Liters Per Hour; or Million Btu Per Hour	X04	Geologic Repository	Cubic Yards; Cubic Meters; Acre-feet; Hectare-meter; Gallons; or Liters
T80	Boiler	Gallons; Liters; Gallons Per Hour; Liters Per Hour; Btu Per Hour; or Million Btu Per Hour	X99	Other Subpart X	Any Unit of Measure Listed Below

UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE
Gallons.....	G	Short Tons Per Hour.....	D	Cubic Yards.....	Y
Gallons Per Hour.....	E	Metric Tons Per Hour.....	W	Cubic Meters.....	C
Gallons Per Day.....	U	Short Tons Per Day.....	N	Acres.....	B
Liters Per Hour.....	L	Metric Tons Per Day.....	S	Acre-feet.....	A
Liters Per Day.....	V	Pounds Per Hour.....	J	Hectares.....	Q
		Kilograms Per Hour.....	R	Hectare-meter.....	F
		Million Btu Per Hour.....	X	Btu Per Hour.....	I

Process Codes and Design Capacities (Continued)

EXAMPLE FOR COMPLETING Item 8 (shown in line number X-1 below): A facility has a storage tank, which can hold 533.788 gallons.

Line Number	A. Process Code (From list above)			B. PROCESS DESIGN CAPACITY				C. Process Total Number of Units	For Official Use Only				
				(1) Amount (Specify)	(2) Unit of Measure (Enter code)								
1	S	0	2	5 3 3 . 7 8 8	G		0 0 1						
1	S	0	2	1 .090	G		001						
2	S	0	2	.550	G		001						
3	S	0	1	45 .000	G		001						
4													
5													
6													
7													
8													
9													
0													
1													
2													
3													
4													
5													

NOTE: If you need to list more than 15 process codes, attach an additional sheet(s) with the information in the same format as above. Number the lines sequentially, taking into account any lines that will be used for "other" processes (i.e., D99, S99, T04 and X99) in Item 9.

Other Processes (See Instructions on page 25 and follow Instructions from Item 8 for D99, S99, T04 and X99 process codes)

Line Number Enter #s in sequence (by Item 8)	A. Process Code (From list above)			B. PROCESS DESIGN CAPACITY				C. Process Total Number of Units	D. Description of Process
				(1) Amount (Specify)	(2) Unit of Measure (Enter code)				
2	T	0	4	1 0 0 . 0 0 0	U		0 0 1	In-situ Vitrification	

Description of Hazardous Wastes (See instructions on page 25) - Enter information in the sections on Form Page 5.

**HAZARDOUS WASTE NUMBER** - Enter the four-digit number from 40 CFR, Part 261 Subpart D of each listed hazardous waste you will handle. For hazardous wastes which are not listed in 40 CFR, Part 261 Subpart D, enter the four-digit number(s) from 40 CFR Part 261, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

**B. ESTIMATED ANNUAL QUANTITY** - For each listed waste entered in Section A, estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in Section A, estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.

**C. UNIT OF MEASURE** - For each quantity entered in Section B, enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure, taking into account the appropriate density or specific gravity of the waste.

**D. PROCESSES**

**1. PROCESS CODES:**

**For listed hazardous waste:** For each listed hazardous waste entered in Section A, select the code(s) from the list of process codes contained in Items 8A and 9A on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all the listed hazardous wastes.

**For non-listed hazardous waste:** For each characteristic or toxic contaminant entered in Section A, select the code(s) from the list of process codes contained in Items 8A and 9A on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

**VOTE: THREE SPACES ARE PROVIDED FOR ENTERING PROCESS CODES. IF MORE ARE NEEDED:**

- Enter the first two as described above.
- Enter "000" in the extreme right box of Item 10.D(1).
- Use additional sheet, enter line number from previous sheet, and enter additional code(s) in Item 10.E.

**2. PROCESS DESCRIPTION:** If a code is not listed for a process that will be used, describe the process in Item 10.D(2) or in Item 10.E(2).

**NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER** - Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

- Select one of the EPA Hazardous Waste Numbers and enter it in Section A. On the same line complete Sections B, C and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
- In Section A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In Section D(2) on that line enter "included with above" and make no other entries on that line.
- Repeat step 2 for each EPA Hazardous Waste Number that can be used to describe the hazardous waste.

**EXAMPLE FOR COMPLETING Item 10** (shown in line numbers X-1, X-2, X-3, and X-4 below) - A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operations. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES					
				(1) PROCESS CODES (Enter code)					
X 1	K   0   5   4	900	P	T   0   3	D   8   0				
X 2	D   0   0   2	400	P	T   0   3	D   8   0				
3	D   0   0   1	100	P	T   0   3	D   8   0				
4	D   0   0   2								Included With Above

Description of Hazardous Wastes (Continued. Use the Additional Sheet(s) as necessary; number pages as 5 a, etc.)

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES											
				(1) PROCESS CODES (Enter code)										(2) PROCESS DESCRIPTION (If a code is not entered in D(1))	
1	M   0   0   1	5,000	P	S	0	1									PCB Capacitors
2	M   0   0   1	10,000	P	S	0	1									PCB Transformers
3	M   0   0   1	15,000	P	S	0	1									PCB Equipment
4	M   X   0   1	50,000	P	S	0	1									PCB Spill Cleanup Debris
5	M   0   0   1		P	S	0	1									Included Above
6	M   T   0   1		P	S	0	1									Included Above
7	M   T   0   1	75,000	P	S	0	1									PCB-contaminated Equipment
8	M   0   0   1	5,000	P	S	0	1	S	0	2						PCB Oil/Dielectric Fluid
9	M   T   0   1	25,000	P	S	0	2	S	0	1						PCB-contaminated Oil/Dielectric Fluid
0															
1															
2															
3															
4															
5															
6															
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9															

(See instructions on pages 25 and 26)

Submit with this application a topographic map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in this map area. See instructions for precise requirements.

Facility Drawing (See instructions on page 26)

If existing facilities must include a scale drawing of the facility (see instructions for more detail).

Photographs (See instructions on page 26)

If existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).

Comments (See instructions on page 26)

DATE 09/09/05  
Revision 0  
A

12. Facility Drawing

