Spill Prevention Control and Countermeasure (SPCC) Plan

Kerhonkson Substation
Route 55
Wawarsing, New York

Central Hudson Gas and Electric Corporation
284 South Avenue
Poughkeepsie, New York 12601

March 2013

Prepared by
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Newburgh, NY 12550
Document #NEW13R0114
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SPILL PREVENTION CONTROL AND COUNTERMEASURES PLAN

Name of Facility: Kerhonkson Substation
Type of Facility: Electrical Substation
Location of Facility: Route 55
Town of Wawarsing, Ulster County, New York
Name and Address of Owner: Central Hudson Gas and Electric Corporation
284 South Avenue
Poughkeepsie, New York 12601

MANAGEMENT APPROVAL

This SPCC Plan has been reviewed by me and will be implemented as herein described. Company resources including manpower, equipment, and materials necessary to contain and remove any harmful quantities of oil spilled will be obtained.

Name: Thomas C. Brocks
Title: Vice President – Human Resources & Health and Safety
Signature: [Signature]
Date Signed: 3/26/13

CERTIFICATION

The undersigned Engineer certifies that:

I. That he is familiar with the requirements of this part;
II. That he or his agent has visited and examined the facility;
III. That the Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards, and with the requirements of this part;
IV. That procedures for required inspections and testing have been established; and
V. That the Plan is adequate for the facility.

Printed Name of Registered Professional Engineer: Daniel L. Harpstead
Registration No.: 086069
Registration State: New York
Signature of Registered Professional Engineer: [Signature]
Date Signed: 3/11/2013
(Seal)
SPILL PREVENTION CONTROL AND COUNTERMEASURES PLAN

Name of Facility            Kerhonkson Substation
Type of Facility            Electrical Substation
Location of Facility        Route 55
                            Town of Wawarsing, Ulster County, New York
Name and Address of Owner   Central Hudson Gas and Electric Corporation
                            284 South Avenue
                            Poughkeepsie, New York 12601

MANAGEMENT APPROVAL

This SPCC Plan has been reviewed by me and will be implemented as herein described. Company resources including manpower, equipment, and materials necessary to contain and remove any harmful quantities of oil spilled will be obtained.

Name: Thomas C. Brock          Title: Vice President – Human Resources & Health and Safety
Signature: ____________________ Date Signed: ____________________

CERTIFICATION

The undersigned Engineer certifies that:

I. That he is familiar with the requirements of this part;
II. That he or his agent has visited and examined the facility;
III. That the Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards, and with the requirements of this part;
IV. That procedures for required inspections and testing have been established; and
V. That the Plan is adequate for the facility.

Printed Name of Registered Professional Engineer: Daniel L. Harpstead
Registration No.: 086069
Registration State: New York
Signature of Registered Professional Engineer: [Signature]
Date Signed: 8/11/2013
(Seal)

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March 2013
1.0 FACILITY INFORMATION

1.1 Conformance with Regulations (112.7(a))

This document is the Spill Prevention Control and Countermeasure (SPCC) Plan for the Kerhonkson Substation, which is operated by Central Hudson Gas and Electric Corporation (CHG&E). The emergency response and notification procedures included in this document are to be used for the management and avoidance of the release of oils to the environment as required by 40 CFR Part 112 (July 17, 2002, amended November 9, 2009), the Oil Pollution Prevention Regulations. This Plan will help to minimize or prevent the release of oil to surface waters and other parts of the environment. This SPCC Plan is to be used for the control of oil releases from oil-filled electrical equipment located at the electrical substation. Per the regulations, only containers of oil with a capacity of 55 gallons or greater are counted toward the total oil storage at the facility.

Oil spills may result from routine substation operations. They can be controlled by quick response from trained CHG&E substation support personnel. Built-in onsite controls, such as secondary containment basins, may also aid in preventing the potential discharge of oil from the substation. CHG&E maintains a large inventory of spill control and clean-up equipment at the Eltings Corners Storeroom (see Appendix A) that is available to the Operations Services Division to aid in the control and cleanup of a discharge to the environment.

This SPCC Plan identifies measures that will ensure rapid response to oil releases, and it provides direction for handling spill situations. Response measures, emergency procedures, and spill reporting information are provided in Sections 1.5 and 1.8. This document represents practical measures that will limit the potential for a significant release of oil to the environment.

This Plan must be amended whenever there is a change in facility design, construction, operation or maintenance that materially affects the facility’s potential to discharge oil (see Appendix B, SPCC Plan Change Form). The plan must be reviewed, evaluated, and modified as necessary at least once every five years by CHG&E. The review process must be documented. The SPCC Plan must also be amended within six months after the review and evaluation to include more effective preventative and control technology if this technology (1) will significantly reduce the likelihood of a spill, and (2) has been field proven. Plan amendments may need to be certified by a professional engineer.

It is the responsibility of CHG&E to ensure a complete evaluation, every five years from the date this plan was certified, and modification (when necessary) of the plan. Facility owners/operators must make this SPCC Plan available to United States Environmental Protection Agency (USEPA) for onsite review during normal working hours. Amendment requirements and availability of this Plan are embodied in 40 CFR Part 112.

The SPCC Plan for this facility was originally issued May 12, 1995, with revisions and endorsements as follows: May 1995, May 1998, December 2001, and March 2008. This revised SPCC Plan has been formatted in accordance with 40 CFR Part 112, specifically following requirements in Part 112.7.
1.2 General Facility Information

The Kerhonkson Substation is a 69-13.2 kV electrical substation located on the south side of Route 55 in the Town of Wawarsing, Ulster County, New York (Figure 1). The facility consists of the substation compound housing two (2) electrical transformers, two (2) potential transformers, two (2) voltage regulators, other electrical equipment, a control house, power line towers, and various overhead electrical lines. The substation has a gravel base with grassed and forested areas around the exterior perimeter. Access to the substation is directly off Route 55. See Figure 2 for a Facility Diagram.

The substation has been constructed into a side hill. The topography in the vicinity of the site slopes moderately from south to north toward a New York State Department of Environmental Conservation (NYSDEC) regulated wetland. The topography onsite is generally flat.

The electrical transformers have capacities that range from 200 gallons to 4,860 gallons of non-Polychlorinated Biphenyl (PCB) mineral oil, which acts as coolant and electrical insulation. The transformers are single-wall metal-sided and are located on concrete pads at locations across the substation. The concrete pads of the transformers are surrounded by crushed gravel. All voltage regulators consist of single-walled, metal-sided oil reservoirs. Voltage regulators are located on concrete pads surrounded by gravel and both have capacities of 6,933 gallons. A Facility Diagram is included as Figure 2.

The volume of the largest container or piece of equipment is 6,993 gallons. The total volume of oil contained on site as defined by 40 CFR 112 (equipment or containers ≥ 55 gallons) is 22,516 gallons.

See Table 1-1 for an Onsite Oil Storage List.
LEGEND

ARROW INDICATES PREDICTED FLOW PATH FROM THE FACILITY TO THE NEAREST NAVIGABLE WATER
NOTE: OIL FILLED ELECTRICAL EQUIPMENT (INCLUDING TRANSFORMERS, BREAKERS AND CAPACITORS) CONTAINS NON-PCB MINERAL OIL.

LEGEND

- DIRECTION OF FLOW
- T TRANSFORMER
- V VOLTAGE REGULATOR
- R RECLOSER
- PT POTENTIAL TRANSFORMER
- X X FENCE

FIGURE 2

SPCC SITE MAP
CENTRAL HUDSON GAS & ELECTRIC CORPORATION
KERHONKSON SUBSTATION
TOWN OF WAWARSING ULSTER COUNTY, NY

REVISED 12/21/12 - EKC
### TABLE 1-1

**KERHONKSON SUBSTATION**

**ONSITE OIL STORAGE LIST**

(112.7(a)(3)(i))

<table>
<thead>
<tr>
<th>Equipment Identification</th>
<th>Serial No. / Switch No.</th>
<th>Oil Type (Mineral, PCB, Non-PCB, PCB-contaminated)</th>
<th>Total Quantity (gallons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage Regulator</td>
<td>4087889</td>
<td>Non-PCB</td>
<td>6,933</td>
</tr>
<tr>
<td>Voltage Regulator</td>
<td>4087888</td>
<td>Non-PCB</td>
<td>6,933</td>
</tr>
<tr>
<td>Potential Transformer</td>
<td>4965891</td>
<td>Non-PCB</td>
<td>200</td>
</tr>
<tr>
<td>Potential Transformer</td>
<td>4965896</td>
<td>Non-PCB</td>
<td>200</td>
</tr>
<tr>
<td>Transformer</td>
<td>5589893</td>
<td>Non-PCB</td>
<td>4,860</td>
</tr>
<tr>
<td>Transformer</td>
<td>A4315T</td>
<td>Non-PCB</td>
<td>3,390</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>22,516</td>
</tr>
</tbody>
</table>

Note: Only larger equipment (55 gallons in quantity or greater) is included on Table 1-1. There is the potential that other small equipment or equipment components (e.g., circuit breaker pods, bushing) located within this substation may contain mineral oil. Per the regulations, only containers of oil with a capacity of 55 gallons or greater are counted toward the total oil storage at the facility.

### 1.3 Discharge Prevention Measures (112.7(a)(3)(ii))

Discharge prevention measures at the facility include procedures for the routine handling of oil at the substation. Oil handling occurs only during scheduled maintenance of oil-filled equipment and during the pickup or delivery of mineral oil to the facility (in the event that electrical equipment need to have oil replaced).

Tank truck loading and unloading occurs only during scheduled maintenance. Oil from the transformer’s load tap changer (LTC) compartment is removed and placed into a portable tank. The amount of oil contained within the LTC compartment is approximately 100 gallons of oil per transformer. Therefore, a maximum of 2,000 gallons of oil would be temporarily stored in the portable tank/tanker(s) during the overhaul of the transformers.

Containment for maintenance operations is not practicable. Tank trucks used in regularly scheduled maintenance may be located in many varied positions at the facility, making it impractical to provide containment. Tank trucks used in cases of emergencies would also be potentially located in different configurations. As discussed in Section 4.0, an oil spill contingency plan and a commitment of manpower, equipment, and materials required to control and remove any quantity of oil discharged that may be harmful, has been included in this Plan as an alternative due to the impracticability determination.

During tank truck loading and unloading, the following procedures are followed:
• Position truck away from drainage pathways and the receiving body of water, set parking break, and turn off motor if it is not required for pump operation.
• No smoking during transfer or in the areas of oil transfer.
• Have fire extinguisher and onsite spill materials readily available and close at hand before transferring begins.
• Check all hoses, valves, and connections for leaks or damages. If a problem is found contact the Operation Services Supervisor immediately.
• Make connections for oil transfer. Use extreme caution to avoid any spillage.
• Check all valves to confirm correct transfer of fluid.
• Begin transfer slowly to ensure connections & hoses are holding correctly.
• If there are no problems, proceed to transfer oil at the appropriate rate.
• Do not leave transfer unattended at any time. Oil transfer must be monitored and observed throughout the entire process.
• When oil transfer is finished, drain hose(s) into tank; close all valves, shutdown pump.
• Take extreme care when disconnecting hoses to avoid any spillage. Use catch bucket and absorbent materials when necessary.
• In the event of a spill, stop oil transfer and contact the Operation Services Supervisor immediately.

1.4 Discharge and Drainage Controls (112.7(a)(3)(iii))

There is no secondary containment at the facility. Oil spills from the equipment at the substation will infiltrate into and be partially contained by the crushed stone. The crushed stone allows the infiltration of rainwater, which then percolates into the surrounding soil. If the spill were of such a capacity that the crushed stone could not absorb oil fast enough and overland flow occurred, a spill would potentially flow northward downhill into a New York State Department of Environmental Conservation regulated wetland.

The closest surface water body is a NYSDEC regulated wetland located approximately 50 feet northeast and northwest of the substation. The wetland drains westward into the Kerhonkson Reservoir, located approximately 1,500 feet west of the substation. In general, the topography of the substation is flat. However, the substation was constructed into a side-hill that slopes to the north toward the NYSDEC wetland.

1.5 Countermeasures for Discharge Discovery, Response, and Cleanup (112.7(a)(3)(iv))

1.5.1 Duties of Employee Discovering Spill

1.5.1.1 Small Oil Spill Or Leak (Less than 5 Gallons)

In the event of a small oil spill or leak (less than 5 gallons) at the substation, the employee shall, as appropriate, immediately take the following action(s):

• Determine if the oil is PCB or non-PCB (see Appendix C). Please note that all voltage regulators and transformers at the Kerhonkson substation contain non-PCB oil.
• If the oil contains PCBs, stop and call the Operations Services Supervisor or System Operations. PCB spills will be handled by an outside contractor.
• If the oil is non-PCB:
  ▪ Plug, patch or wrap leaking equipment to stop leak.
  ▪ Check that containment drain valves (if available) are sealed closed.
  ▪ Prevent water from entering spill area.
  ▪ Apply absorbent materials, if available.
  ▪ Cordon off area to limit tracking of spill.

The employee will also immediately notify the Operations Services Supervisor during normal business hours, or System Operations outside of normal hours (845-486-5604). Section 1.7 (page 7) lists key contacts and phone numbers. The following information must be provided:

• Reporting person’s name,
• Type, extent and location of the spill,
• Spill date and time,
• Equipment involved and type of fluid spilled,
• Quantity of fluid spilled,
• Description of affected medium - soil, water, vegetation,
• Number and condition of injured, if any,
• Control measures in effect or to be put into effect and
• Return telephone number.

A copy of the System Operations Spill Report Form is located in Appendix D.

It should be noted that outside of normal business hours, the possibility exists for Customer Services personnel to be the first to respond to an oil spill or leak at a Company-owned electrical substation.

If physical injuries occur, notify appropriate emergency services. See Section 1.7 (page 7) for telephone numbers of specific emergency services applicable to the substation.

1.5.1.2 Large Oil Spill Or Leak (5 gallons or more)

In the event of a large oil spill or leak (5 gallons or more) at the facility, the employee shall, as appropriate, immediately take the following action(s):

• Dial 911
• Immediately notify the appropriate Operations Services Supervisor during normal business hours, or System Operations outside of normal business hours (845-486-5604).
• Large spills (PCB and non-PCB) will be handled by an outside contractor.
• Determine if the oil is PCB or non-PCB (see Appendix C). Please note that all voltage regulators and transformers at the Kerhonkson substation contain non-PCB oil.

The following information must be provided:

• Reporting person’s name,
• Type, extent and location of the spill,
• Spill date and time,
• Equipment involved and type of fluid spilled,
• Quantity of fluid spilled,
• Description of affected medium - soil, water, vegetation,
• Number and condition of injured, if any,
• Control measures in effect or to be put into effect and
• Return telephone number.

A copy of the System Operations Spill Report Form is located in Appendix D.

If physical injuries occur, notify appropriate emergency services. See Section 1.7 (page 7) for telephone numbers of specific emergency services applicable to the facility.

1.5.2 Operations Services Supervisor and System Operations Duties

During normal business hours, the Operations Services Supervisor will be the responsible party for providing the necessary emergency response. During off-hours, System Operations will be the responsible party until the appropriate Operations Services Supervisor responds to the scene.

Notification will be made to CHG&E’s Environmental Affairs Division during normal business hours and to the Environmental Affairs person on call after hours through System Operations. The Operations Services Supervisor on call will report to the scene. In general, the following activities will be conducted:

- The Supervisor will immediately dispatch a crew who will utilize the oil absorbing material and other containment materials from the CHG&E Storeroom at the Eltings Corners facility.

- Upon arrival at the facility, the Supervisor will assess the extent of the spill and determine the amount spilled. The Supervisor may find it necessary to call in an oil spill clean-up contractor depending on the type, size and amount of area affected by the spill. The spilled oil and contaminated earth will be placed in appropriate containers and removed from the site. The telephone numbers for oil spill clean-up contractors are provided in Section 1.7.

- Environmental Affairs Division personnel during normal business hours, and System Operations outside of normal business hours, shall perform the necessary spill notification to the NYSDEC and the USEPA’s National Response Center. Spill reporting is discussed further in Section 1.8 of this SPCC Plan. Telephone numbers for the appropriate regulatory agencies are provided in Section 1.7.

- In addition, the Supervisor should also notify, if not already done, the following CHG&E divisions or company representatives regarding the release at the facility: Environmental Affairs Division, Insurance Specialist, and Safety Director.

1.6 Methods of Disposal (112.7(a)(3)(v))

The spilled oil, spent sorbents, contaminated soil, and any other wastes generated during the spill will be placed in appropriate containers and removed from the site. The contents of the containers will be classified and disposed of in accordance with State regulations. The
Environmental Affairs Division will coordinate the removal and disposal of wastes generated by a spill or release.

In the event of a spill that impacts natural resources, CHG&E will utilize appropriate methods in regards to assessing and restoring damage to wildlife or natural resources resulting from a spill. These methods may include wildlife restoration or ecological studies conducted by environmental specialists including surface water and soil sampling programs.

1.7 Contact List and Phone Numbers *(112.7(a)(3)(vi))*

### Facility Response

<table>
<thead>
<tr>
<th>Role</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operations Services Supervisor</td>
<td>(845) 883-3309</td>
</tr>
<tr>
<td>System Operations</td>
<td>(845) 486-5604</td>
</tr>
<tr>
<td>Insurance Specialist</td>
<td>(845) 486-5774</td>
</tr>
<tr>
<td>Safety Director</td>
<td>(845) 486-5345</td>
</tr>
<tr>
<td>Environmental Affairs</td>
<td>On Call</td>
</tr>
</tbody>
</table>

### Cleanup Contractor

<table>
<thead>
<tr>
<th>Company</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miller Environmental Group Services, Newburgh, NY</td>
<td>(845) 569-1200</td>
</tr>
<tr>
<td></td>
<td>(800) 394-8606</td>
</tr>
<tr>
<td>C₂G Environmental, New Paltz, NY</td>
<td>(845) 255-4900</td>
</tr>
</tbody>
</table>

### Federal, State and Local Agencies

<table>
<thead>
<tr>
<th>Agency</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Response Center (USEPA Spill Hotline)</td>
<td>(800) 424-8802</td>
</tr>
<tr>
<td>New York State Department of Environmental Conservation 24 Hour Hotline</td>
<td>(800) 457-7362</td>
</tr>
<tr>
<td>USEPA Region II office <em>(spills involving over one pound of PCB)</em></td>
<td>(908) 548-8730</td>
</tr>
<tr>
<td>U.S. Coast Guard Captain of the Port (New York City)</td>
<td>(718) 354-4119</td>
</tr>
<tr>
<td>New York State Police</td>
<td>911/(845) 691-2922</td>
</tr>
<tr>
<td>Ulster County Sheriff’s Patrol</td>
<td>911/(845) 647-2677</td>
</tr>
<tr>
<td>Napanoch Fire Department</td>
<td>911/(845) 331-4312</td>
</tr>
<tr>
<td>Ellenville Community Hospital, Ellenville, NY</td>
<td>(845) 647-6400</td>
</tr>
<tr>
<td>Ellenville Rescue Squad</td>
<td>911/(845) 647-8181</td>
</tr>
</tbody>
</table>
1.8 Reporting Information and Procedures (112.7(a)(4))

Spills that can potentially harm human health or the environment must be reported to State and Federal agencies. The NYSDEC and the USEPA have established different criteria for triggering the reporting requirement for releases. See Table 1-2 for full Spill Notifications/Reporting Requirements.

1.8.1 NYSDEC

Petroleum spills must be reported to the NYSDEC unless they meet all of the following criteria:

- The spill is known to be less than five (5) gallons and does not involve PCBs.
- The spill is contained and under the control of the spiller.
- The spill has not and will not reach the State's water or any land; and
- The spill is cleaned up within two (2) hours of discovery.

The initial report consists of a telephone call to the NYSDEC Spill Response Center's 24-Hour Hotline (Section 1.7). Provide all of the information outlined on the CHG&E Spill Report Form (see Appendix D).

1.8.2 USEPA/National Response Center

The following types of releases must be reported to the USEPA National Response Center, which is staffed by the US Coast Guard, within 24 hours of discovery:

- Spills of any quantity of oil directly to surface water.
- Spills that harm human health or the environment.
- Spills of oil that contain over one (1) pound of PCB. See Appendix C for an example of the Calculations for 1 Pound of PCB.

In addition, spills involving over one pound of PCB must be reported to the USEPA Region II Office at 1-908-548-8730.

The NYSDEC or USEPA may send a representative to the scene, or may request additional information from CHG&E through follow-up phone calls or a written report.

1.8.3 Reporting to Regional Administrator (112.4)

In accordance with 40 CFR Part 112.4, the USEPA Region II Regional Administrator must be sent an incident report if the facility experiences a single discharge of 1,000 gallons of oil, or two discharges, each more than 42 gallons of oil, in a single 12-month period. The report will be sent within 60 days of the incident that subjects the facility to this regulatory section.

The report must include:

- facility name,
• name of owner/operator,
• location of the facility,
• maximum storage or handling capacity of the facility and normal daily throughput,
• corrective action and countermeasures taken,
• description of the facility (including maps and diagrams),
• the cause of the discharge,
• additional preventative measures to minimize recurrence, and
• any other information required by the Regional Administrator.

Discharges are as defined in 40 CFR 112.1(b). Important definitions related to discharges are "navigable waters" and "harmful quantities." **Navigable waters** means waters of the United States including all waters currently used, used in the past, or may be susceptible for future interstate or foreign commerce; interstate waters including wetlands; tributaries of interstate waters; intrastate lakes, rivers, and streams used by interstate travelers for recreational or other purposes; and intrastate lakes, rivers, and streams from which fish or shellfish are taken and sold in interstate commerce. A **harmful quantity** is defined as any quantity that violates applicable water quality standards, or causes a film or sheen on the surface or causes a sludge beneath the surface.

The plan must be submitted within 60 days to:

Regional Administrator - USEPA Region II, 290 Broadway, New York, New York 10007

Oil Spill Response Center - NYSDEC, 625 Broadway, Albany, New York 12233

After reviewing the incident report, the USEPA Regional Administrator will determine whether an amendment to the facility's SPCC plan is necessary. The substation has had two discharges that were reported to the NYSDEC. These releases are discussed in Section 12.0.
### TABLE 1-2
**SPILL NOTIFICATIONS/REPORTING REQUIREMENTS**

<table>
<thead>
<tr>
<th>Material Covered</th>
<th>Act or Regulation</th>
<th>Agency to Notify</th>
<th>What Must Be Reported</th>
<th>Who Must Report</th>
</tr>
</thead>
</table>
| Petroleum from any source                       | New York State Navigation Law Article 12; 17 NYCRR 32.3 and 32.4 | NYSDEC Hotline 1-800-457-7362              | The notification of a discharge must occur no later than 2 hours after the discharge occurred.  
1. Name of person making report and relationship to any person that might be responsible for causing the discharge.  
2. Time and date of the discharge.  
3. Probable source of the discharge.  
4. The location of the discharge, both geographic and with respect to bodies of water.  
5. Type of petroleum discharge.  
6. Possible fire and health hazards resulting from the discharge.  
7. Amount of petroleum discharged.  
8. All actions being taken to clean up and remove the discharge.  
9. The personnel presently on the scene.  
10. Other government agencies that have been or will be notified. | Any person causing discharge of petroleum.  
Owner or person in actual or constructive control must notify the NYSDEC.                                                                                                                                                                                                                                                                                                                                                           |
| All aboveground petroleum and underground storage facilities with a combined capacity of over 1,100 gallons. | ECL 17-1007; 6 NYCRR 613.8 |                               | 1. Report spill incident within two (2) hours of discovery.  
2. Also, when result of any inventory, record test or inspection shows a facility is leaking, that fact must be reported within two (2) hours of discovery. | Any person with knowledge of a spill, leak or discharge.                                                                                                                                                                                                                                                                                                                                                     |
<p>| Any liquid (petroleum included) that if released would be likely to pollute the land or waters of the state. | ECL 17-1743 |                               | Immediate notification that a spill, release or discharge of any amount has occurred. | Owner or person in actual or constructive possession or control of more than 1,100 gallons of that liquid.                                                                                                                                                                                                                                     |</p>
<table>
<thead>
<tr>
<th>Material Covered</th>
<th>Act or Regulation</th>
<th>Agency to Notify</th>
<th>What Must Be Reported</th>
<th>Who Must Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum discharge in violation of 311(b) of the Clean Water Act.</td>
<td>40 CFR 110.10 (Clean Water Act)</td>
<td>USEPA Spill Hotline (National Response Center): (800)-424-8802.</td>
<td>Immediate notification as soon as there is knowledge of a petroleum discharge that violates water quality standards or causes a sheen on navigable waters. Procedures for notice are set forth in 33 CFR Part 153, Subpart B, and in the National Oil and Hazardous Substance Pollution Contingency Plan, 40 CFR Part 300, Subpart B.</td>
<td>Person in charge of on-shore or offshore facility.</td>
</tr>
<tr>
<td>Petroleum discharge greater than or equal to 1,000 gallons of oil into or upon the navigable waters of the US or adjoining shorelines in a single event, or when two reportable spills of any size occur within any 12 month period. Reportable spills are defined at 40 CFR 110.3. 61 FR 7419, February 28, 1996.</td>
<td>40 CFR 112.4(a) (Clean Water Act)</td>
<td>USEPA Region II Regional Administrator</td>
<td>A written report must be submitted which includes: 1. The name of the facility; 2. The name(s) of the owner or operator of the facility; 3. The location of the facility; 4. A description of the facility, including maps, flow diagrams, and topographical charts; 5. The cause of the spill(s), including a failure analysis of system or subsystem in which the failure occurred; 6. Corrective actions and/or countermeasures taken, including an adequate description of equipment repairs and/or replacements; 7. Additional preventive measures taken or contemplated to minimize the possibility of recurrence; and, 8. Such other information as the Regional Administrator may reasonably require pertinent to the Plan or spill event.</td>
<td>Person in charge of on-shore or offshore facility.</td>
</tr>
<tr>
<td>Petroleum or hazardous substance from a vessel, on-shore or off-shore facility in violation of 311(b)(3) of the Clean Water Act.</td>
<td>33 CFR 153.203 (Clean Water Act)</td>
<td>USEPA Spill Hotline (National Response Center): (800)-424-8802.</td>
<td>The person in charge of the facility, on becoming aware of a discharge of a reportable quantity shall immediately notify the NRC of such discharge into or upon “Navigable Waters of the United States.”</td>
<td>Person in charge of on-shore or offshore facility.</td>
</tr>
</tbody>
</table>
2.0 POTENTIAL SPILL SCENARIOS (112.7(b))

A prediction of initial flow path and the potential volume of a spill from each piece of equipment onsite is listed in Table 2-1 and supplemented by the following flow path descriptions. Figure 2 indicates the location of all oil-filled electrical equipment and the drainage paths at the site.

2.1 Description of Potential System Failures and Spill Scenario(s)

Spill case scenarios are presented in Table 2-1. The worst case spill scenario would be a catastrophic spill from the transformers or voltage regulators that would flow overland into the NYSDEC regulated wetland adjacent to the northeast side of the substation (refer to Figures 1 and 2).

The following electrical equipment is typically used at electric utility substations in the conveyance of electricity to the utility customers. The potential electrical equipment failures are also provided.

Equipment Definition: Transformer

An electrical component used to raise or lower the voltage and consisting of two or more multiturn coils of wire placed in close proximity to cause the magnetic field of one to link the other; used to transfer electric energy from one or more alternating current circuits to one or more other circuits by magnetic induction.

Potential Means of Equipment Failure For Transformer:

- Tank rupture/expansion
- Valving or threaded connection breakage/loosening
- Cooling fin rupture
- Overfilling or spillage during filling or maintenance operations

Equipment Definition: Voltage Regulator

A device that maintains the terminal voltage of a generator or other voltage source within required limits despite variations in input voltage or load. Also known as automatic voltage regulator or voltage stabilizer.

Potential Means of Equipment Failure For Voltage Regulator:

- Tankage rupture/expansion
- Valving or threaded connection breakage/loosening
- Overfilling or spillage during the filling/maintenance operations

Equipment Definition: Potential Transformer

An instrument transformer which is intended to reproduce in its secondary circuit, in a definite and known proportion, the voltage of the primary circuit.
Potential Means of Equipment Failure For Potential Transformer:

- Tankage rupture/expansion
- Valving or threaded connection breakage/loosening
- Bushing failure
TABLE 2-1
KERHONKSON SUBSTATION - HYPOTHETICAL SPILL SCENARIOS
Route 55, Wawarsing, NY

<table>
<thead>
<tr>
<th>Equipment Identification</th>
<th>Oil Type</th>
<th>Type of Failure</th>
<th>Total Quantity (gallons)</th>
<th>Spill Scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage Regulator 4087889</td>
<td>Non-PCB Mineral Oil</td>
<td>Tank Rupture/Equipment Failure</td>
<td>6,933</td>
<td>Spill onto stone ballast in substation. If spill were of sufficient quantity that overland flow occurred, oil would flow northeast across the gravel covered parking area, and into the NYSDEC regulated wetland; which drains westward into the Kerhonkson Reservoir.</td>
</tr>
<tr>
<td>Voltage Regulator 4087888</td>
<td>Non-PCB Mineral Oil</td>
<td>Tank Rupture/Equipment Failure</td>
<td>6,933</td>
<td></td>
</tr>
<tr>
<td>Potential Transformer 4965891</td>
<td>Non-PCB Mineral Oil</td>
<td>Tank Rupture/Equipment Failure</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>Potential Transformer 4965896</td>
<td>Non-PCB Mineral Oil</td>
<td>Tank Rupture/Equipment Failure</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>Transformer 5589893</td>
<td>Non-PCB Mineral Oil</td>
<td>Tank Rupture/Equipment Failure</td>
<td>4,860</td>
<td></td>
</tr>
<tr>
<td>Transformer A4315T</td>
<td>Non-PCB Mineral Oil</td>
<td>Tank Rupture/Equipment Failure</td>
<td>3,390</td>
<td></td>
</tr>
</tbody>
</table>

3.0 APPROPRIATE Containment AND/OR DiverSionary Structures (112.7(c))

The transformers and voltage regulators do not have any associated secondary containment systems. Oil spills from these units will infiltrate into and be partially contained by the gravel base or soil of the substation. The gravel base allows the infiltration of rainwater, which then percolates into the surrounding soil.

The closest surface water body, a NYSDEC wetland, is located approximately 50 feet east of the substation. The wetland drains westward in to the Kerhonkson Reservoir, located approximately 1,500 feet northwest of the substation.

The substation does not require secondary containment because only oil-filled electric equipment is present onsite and, in accordance with the 40 CFR 112 regulations, the following are provided:

- An oil spill contingency plan is included in this SPCC Plan,
- A commitment of manpower, equipment, and materials by CHG&E to control and remove oil discharged, and
- An inspection/monitoring program to detect equipment failure and/or discharge.
These items are discussed in greater detail in Sections 5.0 and 11.0.

4.0 **Practicable Containment and Loading/Unloading Facilities (112.7(d))**

In accordance with 40 CFR Part 112.7(d), this section describes measures that are not practicable and the requirements associated with the impracticability determination.

Containment for tank trucks, used for changing out mineral oil during maintenance activities, is not practicable at the facility. The trucks may be at innumerable locations within the facility and it would be impractical to provide containment throughout the facility to cover each location. Due to space limitation, and safety issues, portable containment for tank trucks is also impracticable. Safety issues might arise from the assembly and use of temporary spill control and containment devices within the confines of the oil-filled electrical equipment at the substation. In accordance with 112.7(d), an oil spill contingency plan and a commitment of manpower, equipment, and materials required to control and remove any quantity of oil discharged that may be harmful has been included in this Plan. A cross-reference has been included in Section 11.0 of this report.

Oil-filled electrical equipment is addressed in Section 11.0 of this report.

5.0 **Inspection, Tests and Records (112.7(e))**

Inspections to detect equipment failure and/or a discharge are required as part of the alternative to the general secondary containment requirements for oil-filled electrical equipment. Regular inspections shall be required at all substations.

The Substation Operators inspect this substation on a monthly basis which includes the checking of electrical equipment (e.g., transformers and oil-filled circuit breakers) for leaks, and the inspection of secondary containment basins for evidence of a release. Any abnormal conditions (including oil leaks) are immediately reported to the appropriate Operations Services Supervisor.

There are no bulk storage containers at the substation; therefore, integrity testing is not required.

All results of the inspections are recorded in the Substation Inspection Report. All records of inspections are kept in electronic format at the Operation Services Office at Eltings Corners Storeroom Facility and will be maintained for a minimum of three years. The results of any inspection or test that show equipment is leaking must be reported to the NYSDEC within 2 hours unless the spill meets the requirements of Section 1.8.1.

6.0 **Personnel, Training and Discharge Prevention Procedures (112.7(f))**

The Operations Services and System Operations personnel are instructed in the Corporate Procedures for emergency spill response. Documentation of this training is maintained in Corporate Human Resources files and duplicate documentation is maintained at Operations Services and at the appropriate Customer Services Division headquarters. All training documentation can be reviewed by regulatory agencies upon request. Training records are maintained for a period of no less than five (5) years. Only small non-PCB spills are handled by CHG&E personnel; emergency response contractors would be retained to handle large releases or those containing PCB oils.
Employee training programs have been developed by the Safety Department, the Environmental Affairs Division, and an outside contractor. Through these employee training programs, all personnel involved in operations that use or come in contact with hazardous materials, including oil, are instructed in how to recognize and properly handle hazardous materials. This training also covers spill response, including practices for preventing spills, and procedures for reporting and responding to spills of oil and hazardous materials at Company-owned facilities. Pollution control laws and regulations pertaining to discharges of oils and hazardous material, and the potential environmental effects of such discharges are covered in the training program. Training is performed annually. Annual training shall include a review of the facility's specific SPCC Plan.

Spills that have occurred and the control and countermeasures implemented are reviewed annually. This review includes instruction on additional spill prevention techniques that may have enabled a quicker, more effective response.

Operations Services, Customer Services and System Operations personnel receive specific training upon employment, when the plan is changed or a spill occurs, and at a minimum annually. All training includes the following:

- Applicable laws, rules and regulations regarding spill prevention;
- Notification requirements in the event of a spill;
- Containment and clean-up procedures of a spill;
- Location of this SPCC/Contingency Plan to be used for reference during a spill event; and,
- Record-keeping requirements of a spill event.

The training developed by the Safety Department, the Environmental Affairs Division, and an outside contractor emphasizes the regulatory and internal CHG&E notification reporting requirements.

7.0 SECURITY (112.7(g))

The facility is surrounded by a chain link fence topped with barbed wire with a locked gate. There is also lighting at the facility, although it is not regularly turned on. Additional lighting is not required because discharge detection may be accomplished in several ways. Personnel may notice a leak or spill during a routine inspection of the substation. A known operating equipment failure would be detected by personnel from System Operations. In both of these cases, lighting is not a factor in the discovery of a spill.

Valves at the substation provide security by preventing vandalism and accidental releases. A threaded plug tightened into the outlet of the transformer drain valves prevent outward flow of oil. This plug would require the use of a wrench, therefore, the plug is a sufficient deterrent to vandalism or accidental releases.
8.0 FACILITY TANK CAR AND TANK TRUCK LOADING/UNLOADING RACK (112.7(h))

There are no tank car or tank truck loading/unloading racks at the substation. Tank truck loading and unloading procedures used during maintenance activities are discussed in Section 1.3.

9.0 FIELD CONSTRUCTED ABOVEGROUND CONTAINERS (112.7(i))

There are no field constructed aboveground containers at the substation.

10.0 CONFORMANCE WITH APPLICABLE REQUIREMENTS IN STATE RULES, REGULATIONS, & GUIDELINES (112.7(j))

The New York State Department of Environmental Conservation requires spill reporting as noted in Section 1.8.1 of this report.

11.0 QUALIFIED OIL-FILLED OPERATIONAL EQUIPMENT, CONTINGENCY PLAN AND COMMITMENT OF MANPOWER (112.7(k))

This section describes measures addressing the requirements of 40 CFR Part 109 and a commitment to control and remove harmful quantities of oil that may be discharged. The inclusion of the contingency plan and commitment of manpower meets the requirements outlined for Alternative Requirements to General Secondary Containment as defined in 40 CFR 112.7(k) and the alternative for impracticability determination for tank truck maintenance operations as defined in 40 CFR 112.7(d).

Criteria for State, Local, and Regional oil removal contingency plans are listed in 40 CFR Part 109. The following is a cross-reference of the requirements found in Part 109 and the corresponding Sections of this SPCC Plan.

<table>
<thead>
<tr>
<th>Regulatory Citation</th>
<th>Brief Summary of Regulation &amp; Cross-Reference in SPCC Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 CFR 109.5 (a)</td>
<td>Authorities, responsibilities, and duties of parties involved in oil removal operations are included in Section 1.5 of this report. Methods of disposal are included in Section 1.6. A contact list is included in Section 1.7.</td>
</tr>
<tr>
<td>40 CFR 109.5 (b)</td>
<td>Notification procedures are included in Section 1.5 and Section 1.8 of this report. Critical water use areas, if applicable, are identified in Section 1.5.2.</td>
</tr>
<tr>
<td>40 CFR 109.5 (c)</td>
<td>Resource capability issues are addressed in Section 1.1 and Appendix A. Spill control &amp; clean-up equipment is located at the Eltings Corners Storeroom. The substation is located in the Kingston Division.</td>
</tr>
<tr>
<td>40 CFR 109.5 (d)</td>
<td>Actions taken after discovery and notification of an oil discharge are included in Sections 1.5.2, 1.6, and 1.8.</td>
</tr>
<tr>
<td>40 CFR 109.5 (e)</td>
<td>Procedures for facilitating the recovery of damages and enforcement measures are located in Section 1.6 and Section 1.8.</td>
</tr>
</tbody>
</table>
The commitment of manpower for spill control and countermeasures has been attested by the Responsible Manager, whose dated signature is found on the inside cover page of this SPCC Plan.

12.0 **Spill History** *(112.7(k)(1))*

CHG&E has had two releases of oil at the Kerhonkson Substation that have been reported to the NYSDEC and one that did not require reporting to the NYSDEC.

- **Spill No. 0903301**: On June 21, 2009 approximately 5-10 gallons of non-PCB transformer oil were released when a regulator failed spraying the oil on the stone and steel surrounding the regulator. The NYSDEC Spill Database reported 10 gallons of non-PCB oil was released during this spill incident. A spill contractor was contacted to conduct the clean-up of the spill. NYSDEC was notified of the spill and assigned a Spill number to the event. The NYSDEC closed the case on June 22, 2009.

- **Spill No. 0905464**: On August 10, 2009 approximately 150 gallons of non-PCB oil were released when a phase wire failed and fell onto a regulator and melted a hole in the regulator. The NYSDEC Spill Database reported 100 pounds of non-PCB oil was released during this spill incident. CHG&E contained the spill to the gravel roadway outside the substation fence. An emergency clean up contractor was called in to conduct the clean-up. NYSDEC was notified of the spill and a spill number was issued. The NYSDEC closed the case on August 11, 2009.

- **Spill No. N/A**: On July 7, 2012 a transmission wire broke and burned a hole in the top of a transformer. Oil was contained at the base of the drip and on the gravel floor of the substation. Miller Environmental was called to perform the cleanup. The incident was not reported to NYSDEC due to the amount and containment.

13.0 **Conclusion**

Based on the current inventory of oil-filled electrical equipment at the facility, there are no recommendations for physical improvements, or any changes required at this time.
APPENDIX A
Spill Control & Clean-Up Equipment
### Personal Hygiene Items:

<table>
<thead>
<tr>
<th>Item</th>
<th>Stock Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protective clothing package kit contains:</td>
<td></td>
</tr>
<tr>
<td>disposable jacket</td>
<td></td>
</tr>
<tr>
<td>disposable pants</td>
<td></td>
</tr>
<tr>
<td>disposable boots</td>
<td></td>
</tr>
<tr>
<td>disposable gloves (this item same as 65-07-227)</td>
<td></td>
</tr>
<tr>
<td>Glove, Cotton work</td>
<td>65-07-026</td>
</tr>
<tr>
<td>Glove, rubber, chemical resistant, size 7</td>
<td>65-07-226</td>
</tr>
<tr>
<td>Glove, rubber, chemical resistant, size 9</td>
<td>65-07-228</td>
</tr>
<tr>
<td>Glove, rubber, chemical resistant, size 11</td>
<td>65-07-227</td>
</tr>
<tr>
<td>Eyewash Solution</td>
<td>31-66-450</td>
</tr>
<tr>
<td>Safety glasses with side shields</td>
<td>65-07-242</td>
</tr>
<tr>
<td>Monogoggles</td>
<td>65-07-190</td>
</tr>
<tr>
<td>Face Shields</td>
<td>65-19-381</td>
</tr>
<tr>
<td>Face Shield Holder</td>
<td>65-19-382</td>
</tr>
<tr>
<td>Respirator (Various Styles &amp; Sizes)</td>
<td>Non-Stock</td>
</tr>
</tbody>
</table>

### Personal Hygiene Items:

<table>
<thead>
<tr>
<th>Item</th>
<th>Stock Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waterless Cleaner - ViLan</td>
<td>65-07-165</td>
</tr>
<tr>
<td>Hard hat</td>
<td>65-07-105</td>
</tr>
<tr>
<td>Coverall, Splash Repel, Flame Retardant, Size L</td>
<td>65-16-194</td>
</tr>
<tr>
<td>Coverall, Splash Repel, Flame Retardant, Size XL</td>
<td>65-16-214</td>
</tr>
<tr>
<td>Coverall, Splash Repel, Flame Retardant, Size XXL</td>
<td>65-16-222</td>
</tr>
</tbody>
</table>

### Clean-Up:

<table>
<thead>
<tr>
<th>Item</th>
<th>Stock Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tape, Air Seal 2-1/2” x 10’ Roll (for stopping leaks)</td>
<td>31-45-021</td>
</tr>
<tr>
<td>Seal, Dux, 5 lb. package (for stopping leaks)</td>
<td>31-66-383</td>
</tr>
<tr>
<td>Cloth Wipe, General Purpose</td>
<td>65-03-286</td>
</tr>
</tbody>
</table>
Industrial Wipes, Paper (for general clean-up) | 55-01-010
Industrial Wipes, 10” x 16” Pop Up | 55-01-021
Snow Shovels | 65-19-100
Pony Shovels | 65-19-090
Broom, Stable | 65-02-360
Push Broom (need to order handle (see below) also) | 65-02-433
Handle for Broom | 65-02-434
Need both, broom does not come with handle

### Oil Absorbent Material:

<table>
<thead>
<tr>
<th>Description</th>
<th>Stock Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil Absorbing Material – Roll (Absorbs oil only)</td>
<td>30-66-457</td>
</tr>
<tr>
<td>Oil Absorbing Material – Oil, water, chemicals, and other liquids</td>
<td>55-01-011</td>
</tr>
<tr>
<td>Drum, 55 gal., ¾” &amp; 2” bungs (for liquid only)</td>
<td>55-01-012</td>
</tr>
<tr>
<td>Drum, 55 gal., Removable top with clamp (for solids)</td>
<td>55-01-014</td>
</tr>
<tr>
<td>Drum, 83 gal., Removable top with clamp (for over packing leaking drums)</td>
<td>55-01-013</td>
</tr>
<tr>
<td>6 Mil. Clear Plastic Roll (12’ x 100’) (to wrap equipment too large to place in drum)</td>
<td>30-66-461</td>
</tr>
<tr>
<td>Heavy Duty Garbage Bags - Plastic (for miscellaneous soft debris)</td>
<td>Local Stock</td>
</tr>
<tr>
<td>Heavy Duty Garbage Bags – 6 mil Plastic (38” x 60” x 36”)</td>
<td>30-66-462</td>
</tr>
<tr>
<td>Power Cleaner 155 (Solid surface cleaning solvent)</td>
<td>30-66-500</td>
</tr>
<tr>
<td>Oil Sampling Kit</td>
<td>31-66-470</td>
</tr>
<tr>
<td>Boom, Oil Absorbent (4-5” diameter x 10’ long)</td>
<td>55-01-021</td>
</tr>
</tbody>
</table>

### Labels and Tags:

<table>
<thead>
<tr>
<th>Description</th>
<th>Stock Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCB Label (to identify known PCB equipment)</td>
<td>30-66-433</td>
</tr>
<tr>
<td>Hazardous Waste Label, 6” x 6”</td>
<td>30-66-463</td>
</tr>
</tbody>
</table>

### Labels and Tags (Continued):

<table>
<thead>
<tr>
<th>Description</th>
<th>Stock Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Label, Non-Hazardous Waste, 6” x 6”</td>
<td>31-66-532</td>
</tr>
<tr>
<td>Label, Poison, Class 6, 4” x 4”</td>
<td>31-66-535</td>
</tr>
<tr>
<td>Label, Corrosive, Class 8, 4” x 4”</td>
<td>31-66-533</td>
</tr>
<tr>
<td>Label, Miscellaneous Hazardous, Class 9, 4” x 4”</td>
<td>31-66-534</td>
</tr>
<tr>
<td>Equipment Failure Tag (Attached to equipment shipped to Transformer</td>
<td>60-09-019</td>
</tr>
<tr>
<td>Item Description</td>
<td>Code</td>
</tr>
<tr>
<td>-------------------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Shop for repair)</td>
<td></td>
</tr>
<tr>
<td>Shipping Tag, with String (Attached to containers being shipped to Storeroom)</td>
<td>60-07-131</td>
</tr>
<tr>
<td>PCB Screening Kit, 0-50 ppm</td>
<td>31-66-495</td>
</tr>
<tr>
<td>PCB Screening Kit, 500+ ppm</td>
<td>31-66-496</td>
</tr>
<tr>
<td>Funnel 18”</td>
<td>65-07-213</td>
</tr>
<tr>
<td>Funnel for 55 Gallon Drum Top</td>
<td>65-07-248</td>
</tr>
</tbody>
</table>
APPENDIX B
SPCC Plan Change Form
CENTRAL HUDSON GAS & ELECTRIC CORPORATION
SPCC PLAN CHANGE FORM

SPCC Plan Reviewed By:

| Name: | __________________________ |
| Title: | __________________________ |
| Date: | __________________________ |

<table>
<thead>
<tr>
<th>Updated Sections</th>
<th>Page</th>
<th>Description of Revisions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

☐ Check box if telephone contacts and their telephone numbers are correct.

☐ Check box if no revisions are performed.

Review of update performed by Environmental Affairs Division:

| Name: | __________________________ |
| Title: | __________________________ |
| Date: | __________________________ |

Copy To: Environmental Affairs
System Operations
Records Retention
Operation Services (Local file)
Onsite Facility Plan
APPENDIX C
PCB or Non-PCB Determination
PCB (Polychlorinated Biphenyl) refers to any chemical substance that is limited to the biphenyl molecule that has been chlorinated to varying degrees or any combination of substances which contain polychlorinated biphenyls (includes monochlorinated and dechlorinated biphenyls). Electrical equipment is classified by the following criteria:

- **PCB**: Contains 500 parts per million (ppm) or greater of PCB
- **PCB Contaminated**: Contains 50 ppm or greater and less than 500 ppm of PCB
- **Non-PCB**: Contains less than 50 ppm of PCB
- **No PCB**: Does not contain a detectable concentration of PCB

Oil filled electrical equipment in which the PCB concentration is unknown must be assumed to contain 50 - 500 ppm PCB.

Actual PCB concentration can be determined by use of a Clor-n-oil™ test kit or by fixed based laboratory analysis using EPA SW-846 Method 8080.

Additional information will be obtained through the following marking and labels:

- Yellow PCB Marker
- Non-PCB Blue Label
- Name Plate Data (Askarel™/Pyranol™ - PCB Trade Names)
- Date Manufactured (After 7/1/79 - Non-PCB)

Calculation for 1 Pound of PCB

**Examples:**

- One gallon of Askarel or PCB capacitor fluid (60% PCB) weighs approximately 12.5 pounds. Therefore, if 17 ounces of fluid is spilled, 1 pound of PCB will have been spilled.

  \[
  128 \text{ ounces/gallon} \div (12.5 \text{ lbs/gallon } \times 0.60) = 17 \text{ ounces of fluid for 1 lb PCB}
  \]

- Over 263 gallons of PCB-contaminated oil (50-500 ppm PCB) must be released to reach the 1 pound PCB reporting level; however, a spill of that magnitude should be reported even without the presence of PCB.

Table C-1 provides typical PCB concentrations and quantity of oil that if released would be more than 1 pound PCB.
1) **Aroclor/Pyranol/Askarel Fluid**

PCB Concentration: ~ 60% by weight  
Fluid Weight: 12.5 pound/gallon  
PCB Weight/Gallon: 0.60 (12.5) = 7.5 pounds/gallon

17 ounces of fluid = 1 pound PCB

2) **Mineral Oil**

Fluid Weight: 0.91 specific gravity x 8.34 pounds/gallon = 7.589 pounds/gallon

In order to spill 1 lb of PCB, the following volumes of a specific concentration PCB-containing mineral oil would have to be spilled.

For 50 ppm PCB:  
\[
\text{Volume of Oil} = \frac{1}{\frac{7.589 \times 50}{1 \times 10^6}} = 2,635.4
\]

<table>
<thead>
<tr>
<th>Concentration (ppm)</th>
<th>Volume of Oil (gallons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>2,635.4</td>
</tr>
<tr>
<td>500</td>
<td>263.5</td>
</tr>
<tr>
<td>3,500</td>
<td>37.6</td>
</tr>
</tbody>
</table>
APPENDIX D
CHG&E System Operations Spill Report Form
# System Operations Spill Report

Upon completion, route to the [spill.report@cenhud.com](mailto:spill.report@cenhud.com) distribution list and to the Operating Supervisor of the affected district.

<table>
<thead>
<tr>
<th>Spill Report Date and Time:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee Making Report:</td>
<td></td>
</tr>
<tr>
<td>Spill Date and Time:</td>
<td></td>
</tr>
<tr>
<td>Spill Location</td>
<td></td>
</tr>
<tr>
<td>Structure Name/Number:</td>
<td></td>
</tr>
<tr>
<td>Street Address:</td>
<td></td>
</tr>
<tr>
<td>Town/Village:</td>
<td></td>
</tr>
<tr>
<td>County:</td>
<td></td>
</tr>
<tr>
<td>Type of Facility:</td>
<td></td>
</tr>
<tr>
<td>Type and Quantity of Material Spilled:</td>
<td></td>
</tr>
<tr>
<td>PCB Determination Method (Check One):</td>
<td></td>
</tr>
<tr>
<td>July 1, 1979</td>
<td></td>
</tr>
<tr>
<td>Chlor-n-oil</td>
<td></td>
</tr>
<tr>
<td>Transformer Capitalization Date</td>
<td></td>
</tr>
<tr>
<td>Non-PCB Sticker Observed</td>
<td></td>
</tr>
<tr>
<td>Laboratory Test</td>
<td></td>
</tr>
<tr>
<td>Equipment (If Applicable):</td>
<td></td>
</tr>
<tr>
<td>Describe the extent and cause of the spill (including proximity to streams, ponds, storm drains, sewers, etc.) Give specific measurements if possible:</td>
<td></td>
</tr>
<tr>
<td>Emergency Measures to Contain Spill:</td>
<td></td>
</tr>
<tr>
<td>Additional Preventive Measures to Contain Spill:</td>
<td></td>
</tr>
<tr>
<td>Quantity and Disposition of Recovered Material:</td>
<td></td>
</tr>
<tr>
<td>Injuries Sustained:</td>
<td></td>
</tr>
<tr>
<td>Possible Hazards to Human Health or the Environment Outside the Facility:</td>
<td></td>
</tr>
<tr>
<td>Agencies/Persons Notified (Include Date and Time)</td>
<td></td>
</tr>
<tr>
<td>Environmental SOC:</td>
<td></td>
</tr>
<tr>
<td>NYSDEC (800) 457-7362:</td>
<td></td>
</tr>
<tr>
<td>NYSDEC Spill #:</td>
<td></td>
</tr>
<tr>
<td>Environmental Cleanup Contractor:</td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** For spills at Neversink, make sure you notify NYC Board of Water Supply and Environmental Affairs Division regardless of quantity.