

PCB Spill Cleanup Lineman's Field Checklist

Ensure scene safety before approaching a spill location. Have all nonessential personnel leave the area of the spill or leak.

Barricade the spill as necessary to prevent contamination spread by pedestrians or vehicle traffic.

Only designated personnel trained in cleanup procedures and protected with appropriate PPE should be involved with the cleanup operations or leak repair.

Should any spill enter a waterway or storm drain or sewer system, personnel shall dike or take any necessary action to minimize any further spreading of contamination. Call the office to notify supervisors and request additional personnel if necessary, and spill clean up and sampling materials. If necessary, supervisors can contact CREA Regulatory Compliance personnel and/or the local emergency agencies. If appropriate, supervisors may need to contact the local sewer and water treatment system operators of any quantity of PCB oil gets into the sewer or storm drains.

RECORDKEEPING

The following "Spill Information Log" must be completed at the spill location as soon as possible. If spill recording personnel need to log additional site-specific details, a basic hand-drawn sketch should be drawn on the back of the Spill Information Log.

Spill Information Log

Date: _____

TaxID: _____

Time: _____

EPAID: _____

Weather:

Temperature: _____

Conditions: Clear Cloudy Rain Snow (circle one)

Location of Spill: _____

Distance from Office: _____

Nearest Town/City: _____

Description of oil, fluid or material spilled: Volume Released or Spilled: _____

Equipment Involved (transformer; gasoline storage tank; oil barrel; etc.) _____

Total Volume of Capacity or Storage: _____

Corrective Actions and/or Countermeasures Taken

Did any part of spill reach water or drainage? Yes____No____(check one)

Estimated Quantity Reaching Water: _____ Name of Water Body: _____

Cleanup Measures Used Including List of Equipment and Supplies:

Volume of Spilled Oil, Fluid or Chemical Recovered and Removed: _____

Volume of Contaminated Soil, Rock, Vegetation, etc. Removed: _____

Vegetation removed? Yes No (check one)

Type of vegetation removed: _____

Disposition of Spilled material and Cleanup materials: _____

If Spill was Dielectric Fluid (transformer oil) was it PCB-Contaminated? Yes____No____(check one)

What was the highest laboratory PCB analysis in ppm? _____

Number of drums filled _____

Date that waste drums arrived at Storage yard _____

Date that waste drums were shipped from Storage yard _____

Name of carrier _____

Date that waste drums arrived at Disposal facility _____

Disposal company name: _____ Phone: _____

Date that manifests arrived back at Storage yard and put in tracking file: _____

Drum count and inventory

Report Completed:

Was Test Run on PCB level? _____

Test Results in PPM: _____

Companies and Individuals Involved in Cleanup:

Report Completed By: _____

Date: _____

General Health and Safety Guidelines

- Wear designated PPE and safety equipment at all times while working within the construction zone (i.e., work area).
- Do not eat, drink, chew gum or tobacco, smoke, or apply cosmetics in the construction zone.
- Prevent spillage. If a spill occurs, contain liquid, if possible, using catch basins and/or absorbent pads, and notify the supervisor or the designated representative immediately.
- Prevent splashing or spreading of contaminated materials.
- Be continually aware of potentially dangerous situations and immediately take precautionary measures to ensure the safety of everyone.
- Practice good housekeeping. Keep everything orderly and out of potentially harmful situations.
- Be familiar with the physical characteristics of the site, including:
 - nearest emergency assistance
 - wind direction in relation to the working area
 - accessibility to associates, equipment, and vehicles
 - communication facilities at and near the site
 - site access and egress; and nearest water sources for additional emergency eye washing and showers.
- Keep the number of personnel and equipment in the construction and contamination areas to a minimum but only to the extent consistent with work force requirements of safe site operation.
- Dispose of all waste generated during cleanup activities at the site as directed by the supervisor or his designated representative.
- Report all injuries, no matter how minor, to the Supervisor.
- Do not wear loose clothing and jewelry while working with or near heavy equipment.
- Don't work with open wounds, including bandaged wounds, or other injuries that could provide a route of entry for possible contaminants.
- Avoid wearing leather or cotton gloves or using wooden handled tools that will absorb PCB oil. These items will have to be treated as waste if contamination cannot be removed.

CLEANUP, RECORDKEEPING, AND SAMPLING REQUIREMENTS

PCB SPILLS 50 ppm or Greater (Known or Assumed)

SPILLS INTO:

- 1) Surface Water
- 2) Drinking Water
- 3) Sewers/Sewer Treatment
- 4) Grazing Lands/Pastures
- 5) Vegetable Gardens/Crops

SMALL, LOW CONCENTRATION

- 1) 50-499 ppm PCB's
(known or assumed)
- 2) Less than 1 lb. of PCB's by
weight or less than 270 gallons
of untested mineral oil

LARGE, LOW CONCENTRATION

- 1) 50-499 ppm PCB's
(known or assumed)
- 2) More than 1 lb. of PCB's by
weight or more than 270
gallons of untested mineral oil

HIGH CONCENTRATION

- 1) 500 ppm or greater PCB's
(known or assumed)
- 2) Any detectable quantity

Notify Regional EPA Office
Immediately (no later than
24 hours from discovery)
for guidance on appropriate
cleanup.

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I. SMALL, LOW-CONCENTRATION PCB SPILLS

A. CLEANUP REQUIREMENTS: (To be completed within 48 hours of discovery)

- 1) Double wash/rinse all solid surfaces.
- 2) Double wash/rinse any contaminated indoor, residential surfaces to 10 micrograms per 100 square centimeters (10 ug/100 cm²).
- 3) Excavate all soil within the spill area (visible traces plus a 1-foot buffer).
- 4) Backfill the excavated area with clean soil (i.e., less than 1 PPM), and restore the spill site to its original configuration.

II. LARGE, LOW-CONCENTRATION PCB SPILLS

A. IMMEDIATE REQUIREMENTS: (Within 24 hours)

- 1) Notify Regional E.P.A. Office and National Response Center if required (see Reporting Requirements).
- 2) Cordon off and restrict access to the spill location (visible traces plus a 3-foot buffer).
- 3) Place clearly visible signs advising persons to avoid the area.
- 4) Record and document a diagram of the spill area showing the extent and center of all visible traces.
- 5) If there are no visible traces, record the fact and contact the office supervisors or CREA Regulatory Compliance Coordinator Regional E.P.A. Office for guidance in completing a sampling scheme of the area to determine the spill boundaries.
- 6) Initiate cleanup of the spill (i.e., double wash/rinse solid surfaces, excavate soil, etc.).

NOTE: Requirements 2 - 6 may be delayed beyond 24 hours in cases of emergency and/or adverse weather. Spills on weekends or overtime costs are not acceptable reasons for delay.

B. CLEANUP REQUIREMENTS:

Outdoor Electrical Substations

- 1) Clean all solid surfaces to 100 micrograms per 100 square centimeters (100 ug/100 cm²).
- 2) Clean all contaminated soil to 25 PPM or to 50 PPM provided that a label or notice is visibly placed in the area.

III. HIGH-CONCENTRATION PCB SPILLS

A. IMMEDIATE REQUIREMENTS: (Within 24 hours or 48 hours if PCS Transformer)

- 1) Notify Regional E.P.A. Office and National Response Center if required (see Reporting Requirements).
- 2) Cordon off and restrict access to the spill location (visible traces plus a 3-foot buffer).

- 3) Place clearly visible signs advising persons to avoid the area.
- 4) Record and document a diagram of the spill area showing the extent and center of all visible traces.
- 5) If there are no visible traces, record the fact and contact the Regional E.R.A. Office for guidance in completing a sampling scheme of the area to determine the spill boundaries.
- 6) Initiate cleanup of the spill (i.e., double wash/rinse solid surfaces, excavate soil, etc.).

NOTE: Requirements 2 - 6 may be delayed beyond 24 hours in cases of emergency and/or adverse weather. Spills on weekends or overtime costs are not acceptable reasons for delay.

B. CLEANUP REQUIREMENTS:

Outdoor Electrical Substations

- 1) Clean all solid surfaces to 100 micrograms per 100 square centimeters (100 ug/100 cm²),
- 2) Clean all contaminated soil to 25 PPM or to 50 PPM provided that a label or notice is visibly placed in the area.

NOTE: At such times as outdoor electrical substations are converted to another use, the spill site shall be cleaned up to the non-restricted access area requirements.

Non-Restricted Access Areas:

- 1) Dispose of any contaminated furnishings, toys, and other easily replaceable household items in accordance with 40 CFR 761.60.
- 2) Clean all indoor solid surfaces to 10 micrograms per 100 square centimeters (10 ug/100 cm²).
- 3) Clean all high-contact, outdoor solid surfaces to 10 micrograms per 100 square centimeters (10 ug/100 cm²).
- 4) Clean all indoor vault areas to 10 micrograms per 100 square centimeters (10 ug/100 cm²).
- 5) Clean all low-contact, outdoor, impervious solid surfaces to 10 micrograms per 100 square centimeters (10 ug/100 cm²).
- 6) Clean all low-contact, outdoor, no impervious solid surfaces to 10 micrograms per 100 square centimeters (10 ug/100 cm²), or to 100 micrograms per 100 square centimeters (100 ug/100 cm²) and encapsulate.
- 7) Clean all contaminated soil to 10 ppm, provided that soil is excavated to a minimum depth of 10 inches.
- 8) Backfill the excavated area with clean soil (i.e., less than 1 PPM), and restore the spill site to its original configuration.

C. RECORDKEEPING AND CERTIFICATION REQUIREMENTS:

- 1) Source of the spill (type of equipment).
- 2) Date and time of the spill (actual or estimated).
- 3) Date and time cleanup completed or terminated (list nature and duration of any delays).
- 4) Brief description of the spill location.
- 5) Pre cleanup sampling data (test results) and sampling methods used to determine spill boundaries because of insufficient visible traces.
- 6) Brief description of any solid surfaces cleaned and the double wash/rinse.

- method used.
- 7) Approximate depth and amount of soil excavation.
 - 8) Post cleanup sampling data (test results) and sampling methods used to verify appropriate cleanup.

D. POSTCLEANUP SAMPLING REQUIREMENTS:

- 1) The sampling area must be the greater of: (1) an area equal to the area cleaned plus an additional 1-foot boundary, or (2) an area 20 percent larger than the original area of contamination.
- 2) The sampling scheme must insure 95 percent confidence against false positives.
- 3) The number of samples must be sufficient to ensure that areas of contamination of a radius of 2 feet or more within the sampling area will be detected, except that the minimum number of samples is 3 and the maximum number of samples is 40.
- 4) The sampling scheme must include calculation for expected variability due to analytical error.
- 5) The responsible party may use any statistically valid, reproducible sampling scheme such as ASTM standards provided that the requirements listed above are satisfied. E.P.A. recommends the use of a sampling scheme developed by the Midwest Research Institute (MRI) for use in E.P.A. enforcement inspections: "Verification of PCB Spill Cleanup by Sampling and Analysis." Guidance for the use of this sampling scheme is available in the MRI report, "Field Manual for Grid Sampling of PCB Spill Sites to Verify Cleanup". Notification regulations. Title 40 Code of Federal Regulations (CFR) sections 112.1-7 requires a state notification if a spill enters a water way such as a canal, creek, pond, lake or river and/or exceeds 25 gallons or if 270 gallons of 500 ppm PCBs is spilled on the soil.

E. SAMPLING PREPARATION GUIDELINES

- 1) Prepare all sampling equipment on an approximately 10' square piece of plastic sheeting place on clean soil next to the contaminated zone barrier. Decide how many samples need to be taken to cover the entire spill site at 1' intervals and write designated sample numbers on pin flags prior to entering the contaminated area.
 - a. Have one person don PPE and take the sampling trowel into the contaminated area.
- 2) Don clean latex gloves and prepare sample bottles, labels and cooler filled with blue ice.
 - a. Decontaminate the sampling device with Xylol.
 - b. Fill out sample labels in clean area before each sample is collected.
- 3) Prepare a pre-cleaned, (I-CHEM) sample bottle (250 ml wide-mouth jar with Teflon lined lid).
 - a. Remove sample from sampler or hand shovel and place on plastic sheeting.
 - b. Place only soil in sample container, sort out vegetation and gravel.

- c. Place the sample label on the jar.
- d. Remove sample residue from outside of sample bottle using a paper towel dampened with Xylol.
Immediately place the jar into the cooler with Blue Ice.
- 4) Record sample data in field logbook.
 - a. Decontaminate sampling device with Xylol dampened towel. Repeat sampling process.
- 5) When finished sampling, do not remove the pin flags, and Immediately transport samples to the analytical laboratory. Use chain of custody adhesive seals if anyone other than one of the sampling personnel will be delivering the samples.
- 6) If sample analyses reveal PCBs at higher than 2 ppm, additional contaminated soil must be removed, and the sampling process must be repeated.
- 7) Decontaminate all sampling equipment and place contaminated materials into 55 gallon open-top drums.
- 8) Label drums with appropriate DOT-approved PCB labels that will be signed, dated and describe the materials and PCB contamination levels of the drummed material.
- 9) Write all sample analysis results, drum count and contents, personnel working in the contaminated zone, the dates and times the drums were delivered to the storage and disposal facilities.
- 10) Once samples are analyzed and PCB detection limits are below 2ppm, the spill location will need to be restored to its original location using clean soil, plants, gravel, etc.
- 11) Submit copies of spill report, shipping manifests and all other additional information regarded to the spill to the drum transportation and storage personnel at the office.

F. SPILL, SAMPLING AND DECONTAMINATION KIT(S)

- 1) A spill cleanup kit is located at: _____
- 2) PPE
 - a. Before trained personnel enter a known or potentially contaminated spill location, they must first don the appropriate personal protective equipment (PPE).
 - b. Gloves, disposable foot coverings and eye protection are minimal PPE to be used. Personnel will don Tyvek suits if there is a chance of clothing contamination. Protective clothing articles cannot be worn away from the spill area.

G. WASTE MANAGEMENT

- 1) All contaminated soil, gravel and vegetation shall be stored in 55-gallon drums until laboratory analyses verify actual contaminant levels that will dictate specific drum labeling and waste management requirements. Contaminated fluid amounts exceeding one liter must be stored and

- shipped in specified fluid drums and not placed into soil drums.
- 2) All potentially contaminated PPE and materials shall be stored in plastic bags in the spill area until laboratory analyses verifies actual contaminant levels that will dictate if non-PCB waste can go to the sanitary landfill or drumming PCB contaminated materials for DOT waste management is required.
 - 3) The local landfill will only accept contaminated soil for disposal upon receipt of laboratory analysis tests to verify non-PCB content. Additionally, as a precaution, our personnel will sample and test all oil spills for PCBs prior to disposal. Records of all lab analyses will be kept in the warehouse office.
 - 4) If additional waste management information or equipment is needed, contact:

Gary Billiet	242-0040 (office)
Dan Reid	242-0040 (office) 970-201-2132 (cell)
Bill Barlow	242-0040 (office) or 970-270-8392 (cell)
Mark Shaffer	242-0040 (office) or 970-260-8179 (cell)
Joe Foster	970-581-2143 (cell)

Additional spill response assistance including drums, sampling and decontamination equipment dump trucks and backhoes can be obtained from the following contractors after receiving authorization from your supervisor:

HRL Compliance Solutions, Inc. 970-243-3271
 • Kris Rowe 970-261-2015

Spill Cleanup Assistance, Lineman's Call List

If additional waste management information or equipment is needed, contact:

	<u>Home Phone</u>	<u>Cell Phone</u>
Gary Billiet	(970) 509-0121	(970) 509-0121
Bill Barlow	(970) 389-8739	(970) 270-8392
Mark Shaffer		(970) 260-8179
Joe Foster	None	(970) 581-2143

Laboratory Analysis

JACO Analytical, 103 12th Ave SW, Ephrata, WA, 98823

(509) 754-5725 (Office)

Chemical Information

Chemtrec

Non-Emergency 800/262-8200
Emergency 800/424-9300
(Must be registered with Chemtrec to use 800 numbers)
Federated Rural Electric Insurance Corporation..... 800/356-8360

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