



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

15 W Yakima Ave, Ste 200 • Yakima, WA 98902-3452 • (509) 575-2490

August 2, 2011

Mr. Brad Card, P.E.
PLSA Engineering and Surveying
1120 West Lincoln Avenue
Yakima, WA 98902

Re: **Sampling Requirements**
Chem-Safe Environmental, Inc.
400 South Main Street, Kittitas, WA 98934
Facility/Site ID# 58926155

Dear Mr. Card:

As you know, the Department of Ecology (Ecology) has concluded that a release of hazardous substances has occurred at the above-referenced site. The Model Toxics Control Act authorizes Ecology to "investigate, provide for investigating, or require potentially liable persons to investigate any releases or threatened releases of hazardous substances (Ch. 70.105D.030(1)(a) RCW)." Hazardous substances are defined at Ch. 70.105D.020(10) RCW, and include any dangerous or extremely hazardous waste and any hazardous substance as defined in Ch. 70.105.010(5) and (6).

Sampling must take place to determine the nature and extent of contamination. This letter is intended to outline specific sampling requirements. Below is a table of the conditions witnessed during inspections previously conducted by County Health officials and Ecology staff, and what sampling is necessary to properly characterize the site.

Source(s)	Conditions and Contaminants of Concern	Parameters, media, and applicable lab method
Lead-acid storage batteries	Conditions showed discharged lead-acid storage batteries stored uncontained. In below freezing temperatures, batteries are subject to cracking and leakage of sulfuric acid and solubilized and fine particulate lead/lead oxide/lead sulfate. Low pH of acid attacks concrete, reducing the integrity of concrete floors. Lead (Pb) is the primary environmental contaminant of concern from this source, although arsenic (As) may also be present. Lead may migrate into and through	<ul style="list-style-type: none">• Lead (Pb) in soil• Use Priority Pollutant Metals, EPA Method 200.7, 200.8

	the floor in acid solution, and may contaminate groundwater. (Phosphoric acid drums have also been documented at the site; strong acid releases again have the potential to reduce the integrity of the concrete floor and/or cause observed corrosion of metal wall material.)	
Dry-cleaning solvent	Perchloroethylene (PCE) and tetrachloroethylene drums, particularly when subjected to high ambient temperatures, are likely to leak if drum bungs are improperly closed, or bung seals are in poor condition. In the presence of water, PCE forms strong acids that can corrode metal drums, also leading to releases. PCE passes freely through concrete, particularly when cracks are present, and breaks down into other hazardous chemicals (e.g., tri-chloroethylene isomers, dichloroethane and vinyl chloride).	<ul style="list-style-type: none"> • Volatile and semi-volatile organics analysis (VOA & SVOA) for soil • EPA SW-846 Method 8260 and 5035A
Poly-chlorinated biphenyls (PCBs) drums	A drum marked Waste PCB, with an accumulation start date of July 1, 2009, was photographed at the site in December 2009, well past the allowable holding time for a transporter or generator. Unidentified oil-like stains are apparent on the floor of the facility, indicating a potential release.	<ul style="list-style-type: none"> • PCBs in soil • SW-846 Method 8082
Petroleum & antifreeze drums	Petroleum drums labeled "waste oil" and drums labeled "waste antifreeze" have been stored and photographed during inspections at the facility. Oil-like stains on the floor of the facility indicate the potential for oil releases, as do dark stains and accumulated leakage from bungs in/on drum tops on non-hazardous waste oil drums at the facility.	<ul style="list-style-type: none"> • Petroleum compounds in soil • NWDPT-Gx, -Dx • BTEX • EPA SW-846 Method 8021 or 8260B
Flammable solid paint waste drums	Flammable solid paint waste drums contain solvents (generally non-chlorinated) in the light to medium (lacquer thinner, naphthalene, xylene/xylol, mineral spirits) range, as well as metals in some instances in pigments or corrosion inhibitors.	<ul style="list-style-type: none"> • VOAs & Metals in soil • As previously described
Fluorescent light storage	Fluorescent light tubes and compact fluorescent lights contain mercury (Hg) and, if broken due to improper handling and storage, will release Hg to the floor and soil.	<ul style="list-style-type: none"> • Mercury (Hg) in soil • Use Priority Pollutant Metals, EPA Method 200.7, 200.8

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Pesticides	Pesticides are associated with the "Toxic Solids" drum noted in the December 2009 inspection, as well as in an open-top drum of "lab-pack" form containing "Sevin" (carbaryl) and "gluteraldehyde" (various trade names) and other unidentified wastes of unknown origin. In addition, the disposition of 2 drums of 2,4, D and Diazanone (noted in Idaho DEQ US Ecology rejection letter dated 12/6/2010) is unknown (the drums received by US Ecology did not contain pesticides).	<ul style="list-style-type: none">• Carbamate , Organo-phosphorous, and Chlorinated pesticides in soil• EPA SW-846 Methods 8321B, 8270, and 8081
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If you would prefer to submit a Sampling & Analysis Plan for our review, you are certainly welcome to do so. If not, we expect that your sampling efforts will take into consideration the potential contamination we have noted. That would also meet the Final Order from Kittitas County (dated 5/12/11) requiring "testing.... for contamination." **Sampling should be complete by August 30, 2011.**

To close, I realize that you have worked with a number of regulatory entities through this process. To make things easier and expedite any requests, please direct all correspondence concerning Ecology regulations to me directly. If you have any questions about these requirements for site investigation, please feel free to contact me by email at valerie.bound@ecy.wa.gov or by telephone at (509) 454-7886.

Sincerely,



Valerie Bound
Section Manager
Toxics Cleanup Program

cc Mr. Sky Allphin, Chem-Safe
Mr. Larry Bradley, Chem-Safe
Mr. James Rivard, Kittitas County Public Health Department
Mr. Brian Dixon
Ms. Wendy Neet