



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

Eval 005

Enf. 003

RTC'd 2 violations

May 29, 2013

RE: **SILFEX, INC (SILFEX)**
LARGE QUANTITY GENERATOR (LQG)
OHR000026690
PREBLE COUNTY
NOV/FULL RETURN TO COMPLIANCE

Mr. Buddy McDaniel
Silfex, Inc.
950 South Franklin Street
Eaton, Ohio 45320

Dear Mr. McDaniel:

Thank you for accompanying Joleen Cook and me during Ohio EPA's April 29, 2013, Compliance Evaluation Inspection (CEI) of Silfex Inc.'s (Silfex) facility in Eaton, Ohio. We inspected Silfex to determine its compliance with Ohio's hazardous waste laws as found in Chapter 3734. of the Ohio Revised Code (ORC) and Chapter 3745 of the Ohio Administrative Code (OAC). Our inspection included a review of company operations and written documentation. It also included review of electronic documentation of Silfex's contingency plan and manifest associated with the disposal of universal waste batteries you submitted by email on April 29, 2013, and May 2, 2013, respectively.

We found the following violations of Ohio's hazardous waste laws, and you corrected one during the April 29, 2013, CEI and the other on May 2, 2013.

1. **OAC Rule 3745-66-74, Inspections:** Container accumulation areas must be inspected at least once during the period from Sunday to Saturday.

While reviewing weekly inspection records during the April 29, 2013, inspection, we determined that Silfex missed a weekly inspection between September 20, 2011, and October 4, 2011.

Silfex resumed weekly inspections on October 4, 2011. This action **corrected** the violation.

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2. **OAC Rule 3745-273-15(A), Accumulation Time Limits for small quantity handlers of universal waste:** A small quantity handler of universal waste must accumulate their universal waste for less than one year.

Silfex had universal waste batteries (lithium) that were accumulated over one year during the April 29, 2013, CEI.

Silfex shipped these batteries off-site on May 2, 2009, to another universal waste handler. This action **corrected** the violation.

Enclosed is a copy of the checklists that we completed as a result of the inspection. You can find Ohio's hazardous waste rules and other information on the division's web page at: <http://www.epa.ohio.gov/dhwm/>

Should you have any questions, please feel free to call me at (937) 285-6091.

Sincerely,



Pam Hull
District Representative
Division of Materials and Waste Management

Enclosure

ec: George Strobel, SWDO-DMWM
Robyn Winstead, SWDO-DMWM/SWDO Facility File
Facility File: Silfex, Inc., Large Quantity Generator, OHR000026690, Preble County

NOTICE:

Ohio EPA's failure to list specific deficiencies or violations in this letter does not relieve your company from having to comply with applicable regulations.

PH\bp

Send to Central Office <input type="checkbox"/>	Ohio Environmental Protection Agency RCRA SUBTITLE C SITE IDENTIFICATION/VERIFICATION FORM	For Ohio EPA use only
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Completed verification forms required to be submitted to CO should be e-mailed to RCRAInfoData@epa.state.oh.us.

Site EPA ID No.	EPA ID Number: OHR000026690							
Site Name	Name: Silfex, Inc.					Website: (Optional)		
Site Location Information	Street Address: 950 South Franklin St.							
	City, Town, or Village: Eaton					State: OH		
	County Name: Preble							
Site Land Type (check only one)	Private	County	District	Federal	Indian	Municipal	State	Other
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NAICS code(s) www.census.gov/epcd/www/naics.html	Zip Code: 45320							

Facility Representative	First Name: Charles		MI: E	Last Name: McDaniel	
Additional names can be recorded in number 12	Title:				
Only provide address information if it is different than the site address	Phone Number: 9374723311			Phone Number Extension: 2598	
	E-Mail Address: bmcDaniel@silfex.com				
	Fax Number: 9374720621			Fax Number Extension:	
	Street or P.O. Box:				
	City, Town or Village:				
	State:			Zip Code:	

Legal Owner And Operator of the Site. List Additional Owners and/or Operators in the Comment Section or on another copy of this form page	Name of Site's Legal Owner:				Date Became Owner (mm/dd/yyyy):				
	Owner Type:	Private	County	District	Federal	Indian	Municipal	State	Other
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Street or P.O. Box:				Owner Phone #:				
	City, Town or Village:				Country:		Zip Code:		
	State:				Date Became Operator (mm/dd/yyyy):				
	Name of Site's Operator:								
	Operator Type:	Private	County	District	Federal	Indian	Municipal	State	Other
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Street or P.O. Box:				Operator Phone #:				
	City, Town or Village:				Country:		Zip Code:		
	State:								

VIOLATIONS CITED?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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TYPE OF HANDLER - MARK "X" AS APPROPRIATE

<input type="checkbox"/> Not a HW Generator	<input type="checkbox"/> UNKNOWN: Cited for violation of 3745-52-11	<input checked="" type="checkbox"/> Large Quantity Generator (LQG)
	<input type="checkbox"/> Short-Term/Temporary Generator (generates from a short-term or one-time event and not from on-going processes). <i>Check the box for the applicable generator status and provide a comment.</i>	<input type="checkbox"/> Small Quantity Generator (SQG)
		<input type="checkbox"/> Conditionally Exempt Small Quantity Generator
		<input type="checkbox"/> U.S. Importer of Hazardous Waste
		<input type="checkbox"/> Mixed Waste (Hazardous and Radioactive) Generator

TYPE OF REGULATED WASTE ACTIVITY (MARK "X" IN ALL OF THE APPROPRIATE BOXES)

<input type="checkbox"/> Hazardous Waste Transporter	<input type="checkbox"/> Exempt Boiler and/or Industrial Furnace
<input type="checkbox"/> Hazardous Waste Transfer Facility	<input type="checkbox"/> Small Quantity On-Site Burner Exemption
<input type="checkbox"/> Treater, Storer or Disposer of Hazardous Waste	<input type="checkbox"/> Smelting, Melting, Refining Furnace Exemption
<input type="checkbox"/> Recycler of Hazardous Waste	<input type="checkbox"/> Underground Injection Control Facility
<input type="checkbox"/> 72-Hour Recycler	<input type="checkbox"/> Receives Hazardous Waste from Off-site

UNIVERSAL WASTE ACTIVITIES (INDICATE TYPES OF UNIVERSAL WASTE MANAGED (CHECK ALL BOXES THAT APPLY))

<input checked="" type="checkbox"/> Small Quantity Handler of Universal Waste	<input type="checkbox"/> Destination Facility for Universal Waste
<input type="checkbox"/> Large Quantity Handler of Universal Waste (accumulates 5,000 kg. or more)	

CHECK ALL BOXES BELOW THAT APPLY FOR THE TYPES OF UNIVERSAL WASTE THE FACILITY MANAGES

<input checked="" type="checkbox"/> Batteries
<input type="checkbox"/> Pesticides
<input type="checkbox"/> Mercury containing equipment
<input checked="" type="checkbox"/> Lamps

USED OIL ACTIVITIES (INDICATE TYPE(S) OF ACTIVITY(S))

<input checked="" type="checkbox"/> Used Oil Generator
<input type="checkbox"/> Used Oil Transporter
<input type="checkbox"/> Used Oil Transfer Facility
<input type="checkbox"/> Used Oil Processor
<input type="checkbox"/> Used Oil Re-refiner
<input type="checkbox"/> Off-Specification Used Oil Burner
<input type="checkbox"/> Used Oil Fuel Marketer who directs shipment of Off-Spec Used Oil
<input type="checkbox"/> Used Oil Fuel Marketer who first claims the Used Oil meets the specifications

Eligible Academic Entities with Laboratories: Facility has previously notified that they are opting into managing laboratory hazardous waste pursuant to OAC rules 3745-52-200 through 3745-52-216. Check the box(es) below to indicate the laboratory type.

<input type="checkbox"/> College or University
<input type="checkbox"/> Teaching hospital that is owned by or has a formal written affiliation agreement with a college or university
<input type="checkbox"/> Non-profit Institute that is owned by or has a formal written affiliation agreement with a college or university

Waste Codes for Federally Regulated Hazardous Wastes. Please list the codes for the federally regulated hazardous waste handled at the site. List them in the order they are presented in the regulations (e.g., D001, D003, F007, U112). Use an additional page or list them in the comments if more space is needed. If the waste codes are the same as listed in the most recent RCRAInfo source record, you do not need to list them. Instead just indicate the date of the most recent source record.

SEE 2012 ANNUAL REPORT FOR WASTE CODES
COMMENTS: USE THIS AREA TO DESCRIBE WHETHER THE INSPECTION WAS ANNOUNCED, WHETHER THE WASTE IS STORED IN TANKS OR CONTAINERS, ETC.

Announced	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Additional Facility Representatives:
Tanks	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Containers	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

Name of Inspector(s)	Name of Inspector(s)	Date of Inspection/Time (mm/dd/yyyy) (hh:mm)
Pam Hull	Joleen Cook	04/29/2013 09:30

Comments:

LQG TANK SYSTEM REQUIREMENTS (OAC rule 3745-52-34(A) and OAC rules 3745-66-90 through 3745-66-100)		
(Please refer to the rules before or while completing this checklist.)		
1.	Is each tank clearly labeled/marked with the words "Hazardous Waste?" [3745-52-34(A)(3)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
TANK SYSTEM – GENERAL OPERATING REQUIREMENTS		
2.	Does the o/o follow the general operating requirements below:	
	a. Does the o/o prevent placement of hazardous waste or treatment reagents in tank or secondary containment if such placement can cause the system to leak, rupture, corrode, or otherwise fail? [3745-66-94(A)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
	b. Does the o/o use appropriate controls to prevent spills or overflows from the system (e.g., check valves, dry disconnect couplings, high level alarms, etc.)? [3745-66-94(B)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
	c. If a leak or spill has occurred in the tank system, has the o/o complied with 3745-66-96? [3745-66-94(C)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
TANK SYSTEM – INSPECTION REQUIREMENTS- Copy of March 2013 checklist is attached for reference		
3.	Has the o/o documented the inspections required in 3745-66-95, in the operating record, including inspection of the following:	
	a. Data from leak detection equipment each operating day? [3745-66-95(A)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
	b. Spill control equipment each operating day? [3745-66-95(B)(1)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
	c. Above ground portion of tank each operating day? [3745-66-95(B)(2)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
	d. Construction materials and area immediately surrounding the tanks for signs of erosion or release of hazardous waste each operating day? [3745-66-95(B)(3)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
<i>NOTE: "Each operating day" is each day that the tank system is being used to manage (store or treat) hazardous waste.</i>		
4.	For tank systems using leak detection systems to alert facility personnel to leaks or implementing established workplace practices to ensure leaks are promptly identified, has the o/o documented: [3745-66-95(C)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
	a. Inspections of spill control equipment weekly?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
	b. Inspections of above ground portion of tank weekly?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
	c. Inspections of construction materials and area immediately surrounding the tanks for signs of erosion or release of hazardous waste weekly?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
	d. Use of the alternate inspection schedule, including a description of the established workplace practices at the facility?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
5.	For ancillary equipment NOT provided with secondary containment, has the o/o documented inspections of such equipment each operating day? [3745-66-95(E)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
6.	Where applicable, did the o/o inspect the cathodic protection system to confirm proper operation within six months of initial installation and annually thereafter? [3745-66-95(F)(1)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
7.	Where applicable, did the o/o inspect all sources of impressed current at least bi-monthly? [3745-66-95(F)(2)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
TANK SYSTEM CLOSURE REQUIREMENTS		
8.	If the o/o has closed a <90 day tank, was closure completed in accordance with OAC 3745-66-97 (except for paragraph C)?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>

TANK SYSTEMS STORING IGNITABLE OR REACTIVE WASTES-n/a since storing D002 corrosive waste		
9.	For tanks used to treat or store ignitable or reactive wastes, has the o/o complied with one of the following: [3745-66-98(A)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
a.	Is the waste treated immediately after placement in the tank so that the resultant mixture is no longer ignitable or reactive and the o/o has conducted such activities in compliance with 3745-66-17(B)? [3745-66-98(A)]; or	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
b.	Is the waste stored or treated to protect it from materials or conditions which may cause ignition or reaction? [3745-66-98(A)]; or	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
c.	The tank is used solely for emergencies? [3745-66-98(A)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
10.	If ignitable or reactive waste is stored or treated, are protective distances maintained between waste management areas and any public streets, alleys or adjoining property lines as required by the NFPA Flammable and Combustible Liquids Code (2008)? [3745-66-98(B)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
11.	Has the o/o placed incompatible wastes or materials into the same tank system, or into a tank system that has not been decontaminated and which previously held an incompatible waste or material? [3745-66-99(A) and/or (B)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
a.	If so , have the requirements of 3745-65-17(B) been met? [3745-66-99(A) and/or (B)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
TANK SYSTEM – WASTE ANALYSIS REQUIREMENTS- always stores same waste		
12.	In addition to conducting the waste analysis required by 3745-65-13, when the tank system is used to store or treat a waste which is substantially different or uses a substantially different process than previously used, has the o/o done one of the following: [3745-66-100]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
a.	Conducted waste analysis and trial treatment or storage tests? [3745-66-100(A)]; OR	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
b.	Obtained written documentation on similar waste under similar operating conditions to show that the proposed storage/treatment will meet the requirements of OAC 3745-66-94? [3745-66-100(B)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
TANK SYSTEMS REQUIREMENTS – 8/18/08 tank certification report is attached for reference		
13.	Is there a written assessment attesting that the design, installation and structural integrity of the system is adequate for the management of hazardous waste(s)? [3745-66-92(A)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
<i>NOTE: You should review the file to see if the written assessment has been previously reviewed and what the results were.</i>		
14.	Does the written assessment include the following: [3745-66-92(A)]	
a.	Certification by a qualified professional engineer? [3745-66-92(A)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
b.	Consideration of the design standards of the system? [3745-66-92(A)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
c.	Consideration of the hazardous characteristics of the waste(s)? [3745-66-92(A)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
d.	An evaluation by a corrosion expert (only if the external system/components are metal and in contact with soil or water)? [3745-66-92(A)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
e.	A determination of design and operational measures that will be needed to protect the tank system from potential damage (only for underground tank components)? [3745-66-92(A)] – tanks are below-grade in building not “underground”	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
f.	Design considerations to ensure that the tank foundations will maintain the load of a full tank? [3745-66-92(A)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
g.	Design considerations for anchoring the unit to prevent floatation (only for tanks situated in a seismic fault zone or saturated zone)?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>

	[3745-66-92(A)]	
h.	Design considerations to ensure that the tank system will withstand the effects of frost heave (only for underground tank systems)? [3745-66-92(A)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
<i>NOTE: CO-DHWM Engineering staff are available to assist you with evaluation of the written assessment.</i>		
15.	Are there written statements by those persons who supervised installation or certified design of the new tank system, that the tank system was properly installed and designed and that required repairs were performed? [3745-66-92(G)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
Do the written statements address all of the following:		
a.	Inspection for damage and/or inadequate construction and installation was conducted? [3745-66-92(B)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
b.	Statement that deficiencies were corrected before the tank system was covered or put into use? [3745-66-92(B)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
c.	Proper backfilling? [3745-66-92(C)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
d.	Tightness test; if the tank system was found not to be tight, does the statement indicate that proper repairs were made? [3745-66-92(D)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
e.	Proper support and protection of ancillary equipment? [3745-66-92(E)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
f.	Supervision of the installation of field fabricated corrosion protection? [3745-66-92(F)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
SECONDARY CONTAINMENT		
16.	Has secondary containment been provided? [3745-66-93(A)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
<i>NOTE: Secondary containment must be provided for tank systems that store or treat materials that become hazardous wastes within two years after the hazardous waste listing, or when the system has reached 15 years of age, whichever comes later. [3745-66-92(A)(2)]</i>		
17.	Is secondary containment one of the following:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
a.	An External Liner ? [3745-66-93(E)(1)] If so,	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>
i.	Is liner designed or operated to contain 100% of the capacity of the largest tank?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
ii.	Is liner designed and operated to prevent run-on and infiltration or the collection system has <u>excess</u> capacity to contain run-on and infiltration from a 25-year, 24-hour storm?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
iii.	Is liner free of cracks and gaps?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
iv.	Does liner completely surround the tank and cover all earth likely to be contacted by waste during a release?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
v.	Are chemically resistant water stops in place at all points? (concrete liners only)	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
vi.	Is there a compatible interior coating or lining to prevent migration of waste into the concrete? (concrete liners only)	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
b.	Vault System ? [3745-66-93(E)(2)] If so,	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
i.	Is vault system designed to contain 100% of the capacity in the largest tank? (41x8x8 versus two 5.3x12)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
ii.	Is liner designed and operated to prevent run-on and infiltration or the collection system has <u>excess</u> capacity to contain run-on and infiltration from a 25-year, 24-hour storm?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
iii.	Are chemically resistant water stops in place at all points?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>

	iv.	Is there a compatible interior coating to prevent migration into the concrete?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
	v.	For ignitable or reactive waste : Is the vault system provided with means to prevent (or alternatively "protect against") the formation or ignition of vapors?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
	vi.	Is vault system provided with an exterior moisture barrier? - vault is set on building slab/foundations	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
	c.	Double-Walled Tank? [3745-66-93(E)(3)] If so,	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>
	i.	Is double-walled tank designed as an integral structure to contain any release from the inner tank?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
	ii.	If metal , are the primary tank interior and outer shell exterior surfaces protected from corrosion?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
	iii.	Is double-walled tank provided with a continuous leak detection system able to detect a release within 24 hours or at the earliest practicable time?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
	d.	An Equivalent Device? As described in 3745-66-93(D)(4) which has been approved by the director? [3745-66-93(D)&(E)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
SECONDARY CONTAINMENT DESIGN/OPERATION/INSTALLATION			
18.	Has each secondary containment system been designed, installed and operated to prevent <u>any</u> migration of wastes or liquid to the soil, groundwater, or surface water and is it capable of <u>detecting</u> and <u>collecting</u> releases and accumulated liquids? [3745-66-93(B)(1)&(2)]		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
19.	Does the secondary containment system meet the following minimum requirements of [3745-66-93(C)]:		
	a.	Constructed or lined with compatible materials of sufficient strength to prevent failure? [3745-66-93(C)(1)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
	b.	Placed on a foundation or base capable of providing support? [3745-66-93(C)(2)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
	c.	Provided with a leak detection system designed/operated to detect failure to primary or secondary containment or any release of hazardous waste within 24 hours or at earliest practicable time? [3745-66-93(C)(3)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
	d.	Sloped or designed to drain and remove liquid resulting from leaks, spills or precipitation? [3745-66-93(C)(4)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
	e.	Any liquid which accumulates in the containment unit resulting from spills, leaks or precipitation removed within 24 hours or in a timely manner? [3745-66-93(C)(4)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
ANCILLARY EQUIPMENT REQUIREMENTS			
20.	Is ancillary equipment provided with secondary containment (such as double-walled piping, jacketing or a trench)?		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
	If not , is the ancillary equipment one of the following: [3745-66-93(F)]		
	a.	Above ground piping (exclusive of flanges, joints, valves and connections) that is inspected daily?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
	b.	Welded flanges, welded joints and/or welded connections that is inspected daily?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
	c.	Sealless or magnetic coupling pumps and/or sealless valves?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
	d.	Pressurized above ground piping systems with automatic shut-off devices (e.g., excess flow check valves, flow metering shutdown and/or loss of pressure-actuated shut-off devices) that is inspected daily?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
TANK SYSTEMS FOUND TO BE LEAKING OR UNFIT FOR USE			
21.	Has there been a leak or spill from any tank system or has any tank system		Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>

	been found unfit for use? If so , did the o/o:	
<i>NOTE: If the tank is found to be unfit for use, inspector should explain why.</i>		
a.	Immediately cease flow of material into tank and investigate the cause of the release? [3745-66-96(A)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
b.	Remove waste from tank system to prevent further release within 24 hours of detection or earliest practicable time? [3745-66-96(B)(1)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
c.	Remove all material released into secondary containment system within 24 hours or as timely as possible to prevent harm to human health and the environment? [3745-66-96(B)(2)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
d.	For a visible release to the environment, immediately conduct a visual inspection of the release? [3745-66-96(C)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
e.	For a visible release to the environment, prevent further migration of the leak or spill to soils or surface waters? [3745-66-96(C)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
f.	For a visible release to the environment, properly dispose of any visibly contaminated soil or surface water? [3745-66-96(C)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
g.	Report any release to the environment to the director within 24 hours unless it was less than one pound and was cleaned up immediately? [3745-66-96(D)(1)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
h.	For a release to the environment, submit a written report of the incident to the director within 30 days of the release? [3745-66-96(D)(3)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
i.	Remediate the spill and repair the unit prior to returning it to service? [3745-66-96(E)(2)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
j.	For a release from a tank system without secondary containment, did the o/o provide secondary containment meeting the requirements of 3745-66-93 for the unit prior to putting it back into service? [3745-66-96(E)(4)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
<i>NOTE: The requirements noted in 20.j. do not apply if the release was from an above ground component of the tank which can be inspected visually after being put back into service.</i>		
22.	In the event that the repairs to the tank system were major (e.g., replacement of liner, repair of ruptured primary or secondary containment structure), did the o/o obtain a certification from a qualified professional engineer attesting that the repaired unit is capable of handling hazardous waste? [3745-66-96(F)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
23.	Was a copy of the certification submitted to the director within seven days after returning the system to use? [3745-66-96(F)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
24.	If the o/o was unable to repair and return the unit to service as described in 20.a through 20.e, was the tank system closed in accordance with 3745-66-97? [3745-66-96(E)(1)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
25.	Does the o/o have a tank system with a variance from secondary containment from which a release has occurred but <u>has not</u> migrated beyond the zone of engineering control? If so ,	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
a.	Has the o/o complied with 3745-66-96(A) through (F), except (D), and decontaminated soils? [3745-66-93(G)(3)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
b.	If soils cannot be decontaminated/removed, has the o/o complied with 3745-66-97(B)? [3745-66-93(G)(3)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
26.	Does the o/o have a tank system with a variance from secondary containment from which a release occurred and <u>has</u> migrated from the zone of engineering control? If so ,	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
a.	Has the o/o complied with 3745-66-96(A) through (D), prevented migration, and decontaminated soil? [3745-66-93(G)(4)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
b.	If soils cannot be decontaminated/removed, or if the groundwater has been contaminated, has the o/o complied with 3745-66-97(B)? [3745-66-93(G)(4)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>

Daily Waste Tank System Inspection Log

Tank System ID: **MAE & HF Bench**

Month: **March**

Year: **2013**

Date	Tanks Labeled "Hazardous Waste"	Accumulation Start Date <90 Days Ago	Waste is Compatible with Tank	Secondary Containment Free of Leaks and Liquids	Spill Control Equipment in Place and Operational	Leak Detection Equipment in Place	Over All Tank Condition / No Leaks	No Leaks From Ancillary Equipment (Pumps and Piping)	Emergency Contact Information Posted	Inspectors Initials
Note: A check in the box indicates compliance with the requirement.										
1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	mum
2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	mum
3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	mum
4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	mum
5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	mum
6	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	mum
7	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	mum
8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	sms
9	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	sms
10	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	sms
11	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	mum
12	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	mum
13	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	mum
14	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	mum
15	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
16	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
17	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
18	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
19	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	MSP
20	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	MSP
21	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	MSP
22	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	MSP
23	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DHS
24	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DHS
25	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	MSP
26	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	MSP
27	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	MSP
28	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	MSP
29	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	DAHA
30	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
31	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

TSS, Inc.
Project No.:16487
Technical Solutions Specialists, Inc.
4203 Malsbary Rd.
Cincinnati, OH 45242

PROJECT MEMORANDUM



DATE: August 18, 2008
PROJECT: Bullen Waste Acid Collection System and Tanks
TO: File
FROM: TSS, Inc.
SUBJECT: Spent Acid Collection and Tank/Foundations Analysis

DISTRIBUTION:

Analysis of Waste Acid Tanks Installation

I. Background

Bullen Semiconductor contracted TSS, Inc. of Cincinnati, Ohio to assist in the design of a bulk acid delivery and spent acid recovery system to manage acid handling for a new silicon etching process. This gravity fed waste collection system is employed to contain spent acid that is generated from multiple silicon etch processes within the facility. Waste acid collected in the Bullen etching process contains inorganic acids (nitric, hydrofluoric, and acetic) which result in a hazardous waste classification. This tank system is designed to hold approximately 2000 gallons of spent acid (per tank) prior to removal to a TSDf for neutralization. There are two collection tanks.

There are three spent acids that will be collected in the system. The acids are Nitric acid (@ 56%), Acetic acid (@ 12 %), Hydrofluoric acid (@ 5%) along with DI water (@ 27%). These percentages are a rough estimate of the amounts of each constituent. For the purposes of material selection, worse case was used where the waste acids are full strength (as indicated above). The maximum temperature of the spent acid is 140F, and tank pressure is atmospheric. Bullen currently generates this waste stream in smaller quantities and manages the waste in HDPE returnable totes. Copies of analytical data, product specification sheets and Material Safety Data Sheets for the virgin acid, as well as the spent waste, are available for review.

The nucleus of the system is two (2) 2000-gallon horizontal storage tanks. These industrial storage tanks were specified for the types of spent acid that are generated from the Bullen processes. Material of construction is kynar-lined fiberglass (FRP). These tanks are located in a building that is specifically designed for acid storage, delivery and recovery. The tanks are in a 41 ft x 8 ft x 8 ft concrete vault that serves as secondary containment for the waste system.

Spent acid is returned to the waste collection system via gravity through double-walled (contained) kynar piping and tubing. Sealed valve boxes are employed as required to achieve dual containment within the recovery system. The piping, tubing, valves and pumps were all specified to function as intended in this corrosive environment. Detailed design specifications are available for review.

Secondary containment is achieved through installing the tanks within a concrete vault. This vault meets concrete loading requirements and is covered with a chemical resistant epoxy floor and wall coating to maintain chemical resistance in the event of a spill or leak. Specific design calculations and documented soil surface conditions are available for review. The vault is sloped to a sump; this sump will allow for pooling of the spent acid & water mixture, which will then be pumped into the spent acid tanks for later disposal.

Each tank has a high level sensor and a separate high level alarm switch that are interlocked with audible & visible alarms. The system also has interlocked valves tied into the alarm instrumentation to prevent potential overflow situations. The tanks are piped in series to allow transfer of waste from tank to tank in the event of a tank failure. There is also an audible & visible acid detection system in the sump to detect any pooled acid in the vault.

Each waste tank is vented to an acid scrubber system that is located outside of the acid room. Because the acid will be at atmospheric pressure there is no other form of pressure relief in the system.

Waste removal is accomplished by pumping the spent acid from the tanks to a waste acid tank truck for removal. The pumping is accomplished with a Wilden air operated, double diaphragm pump that has been specified for the process, and has Teflon construction which is resistant to the spent acids. The receiving tank truck will be located over a small secondary containment area outside of the facility while the loading process takes place. Any spilled materials will be collected in secondary waste containers and sent off-site for processing.

The spent acid tanks are horizontal cylindrical with dished heads. They are supported by epoxy-coated saddles. Each tank capacity is 2000 gallons (5.33 ft diameter x 12 ft straight side), and is constructed of kynar-lined fiberglass (FRP). The shell and heads are 1/2" thick with 4mm kynar lining. Design was 140F temperature and atmospheric pressure. The two tanks are located in a building, and are set on concrete pads, which set on building slab/foundations. As such there is no exposure of the tanks to soil conditions or freezing conditions, and there is no exposure to atmospheric corrosive conditions within the building.

II. Tank and Foundations Evaluations

These tanks will hold the waste acids material prior to loadout and transfer. Both tanks described herein contain materials of construction that are corrosion resistant to the waste acids. All structural support members are of acid-resistant fiberglass and fasteners are of Hastelloy. The concrete is epoxy coated to protect against any abnormal exposure to the spent acids. The foundations and structural members were designed by a registered professional engineer, and abide by the International Building Code regulations.

**LARGE QUANTITY GENERATOR REQUIREMENTS
COMPLETE AND ATTACH A PROCESS DESCRIPTION SUMMARY**

CESQG: ≤100 Kg. (Approximately 25-30 gallons) of waste in a calendar month or < 1 Kg. of acutely hazardous waste.
 SQG: Between 100 and 1,000 Kg. (About 25 to under 300 gallons) of waste in a calendar month.
 LQG: ≥ 1,000 Kg. (~300 gallons) of waste in a calendar month or ≥1 Kg. of acutely hazardous waste in a calendar month.
 NOTE: To convert from gallons to pounds: $Amount\ in\ gallons \times Specific\ Gravity \times 8.345 = Amounts\ in\ pounds.$

Safety Equipment Used:

GENERAL REQUIREMENTS

1.	Have all wastes generated at the facility been adequately evaluated? [3745-52-11]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
2.	Are records of waste determination being kept for at least 3 years? [3745-52-40(C)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
3.	Has the generator obtained a U.S. EPA identification number? [3745-52-12]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
4.	Were annual reports filed with Ohio EPA on or before March 1 st ? [3745-52-41(A)]-reports now biennial beginning in 2014	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
5.	Are annual reports kept on file for at least 3 years? [3745-52-40(B)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
6.	Has the generator transported or caused to be transported hazardous waste to other than a facility authorized to manage the hazardous waste? [ORC 3734.02(F)]	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>
7.	Has the generator disposed of hazardous waste on-site without a permit or at another facility other than a facility authorized to dispose of the hazardous waste? [ORC 3734.02(E)&(F)]	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>
8.	Does the generator accumulate hazardous waste?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>

NOTE: If the LQG does not accumulate or treat hazardous waste, it is not subject to 52-34 standards. All other requirements still apply, e.g., annual reports, manifest, marking, record keeping, LDR, etc.

9.	Has the generator accumulated hazardous waste on-site in excess of 90 days without a permit or an extension from the director ORC §3734.02(E)&(F)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>
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NOTE: If F006 waste is generated and accumulated for > 90 days and is recycled see 3745-52-34(G)&(H).

10.	Does the generator treat hazardous waste in a: [ORC 3734.02(E)&(F)]	
	a. Container that meets 3745-66-70 to 3745-66-77?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
	b. Tank that meets 3745-66-90 to 3745-66-100 except 3745-66-97(C)?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
	c. Drip pads that meet 3745-69-40 to 3745-69-45?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
	d. Containment building that meets 3745-256-100 to 3745-256-102?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>

NOTE: Complete appropriate checklist for each unit.

NOTE: If waste is treated to meet LDRs, use LDR checklist.

11.	Does the generator export hazardous waste? If so:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>
	a. Has the generator notified U.S. EPA of export activity? [3745-52-53(A)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
	b. Has the generator complied with special manifest requirements? [3745-52-54]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
	c. For manifests that have not been returned to the generator: has an exception report been filed? [3745-52-55]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
	d. Has an annual report been submitted to U.S. EPA? [3745-52-56]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>

e.	Are export related documents being maintained on-site? [3745-52-57(A)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
MANIFEST REQUIREMENTS		
12.	Have all hazardous wastes shipped off-site been accompanied by a manifest? (U.S. EPA Form 8700-22) [3745-52-20(A)(1)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
13.	Have items (1) through (20) of each manifest been completed? [3745-52-20(A)(1)]&[3745-52-27(A)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
<i>NOTE: U.S. EPA Form 8700-22(A) (the continuation form) may be needed in addition to Form 8700-22. In these situations items (21) through (35) must also be completed. [3745-52-20(A)(1)]</i>		
14.	Does each manifest designate at least one facility which is permitted to handle the waste? [3745-52-20(B)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
<i>NOTE: The generator may designate on the manifest one alternate facility to handle the waste in the event of an emergency which prevents the delivery of waste to the primary designated facility. [3745-52-20(C)]</i>		
15.	If the transporter was unable to deliver a shipment of hazardous waste to the designated facility, did the generator designate an alternate TSD facility or give the transporter instructions to return the waste? [3745-52-20(D)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
16.	Have the manifests been signed by the generator and initial transporter? [3745-52-23(A)(1)&(2)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
<i>NOTE: Remind the generator that the certification statement they signed indicates: 1) they have properly prepared the shipment for transportation and 2) they have a program in place to reduce the volume and toxicity waste they generate.</i>		
17.	If the generator received a rejected load or residue, did the generator:	
a.	Sign item 20 of the new manifest or item 18c of the original manifest? [3745-52-23(F)(1)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
b.	Provide the transporter a copy of the manifest? [3745-52-23(F)(2)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
c.	Send a copy of the manifest to the designated facility that returned the shipment with 30 days after delivery of the rejected shipment? [3745-52-23(F)(3)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
18.	If the generator did not receive a return copy of each completed manifest within 35 days of the waste being accepted by the transporter, did the generator contact the transporter and/or TSD facility to check on the status of the waste? [3745-52-42(A)(1)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
19.	If the generator has not received the manifest within 45 days, did the generator file an exception report with Ohio EPA? [3745-52-42(A)(2)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
20.	Are signed copies of all manifests and any exception reports being retained for at least three years? [3745-52-40]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
<i>NOTE: A generator who sends a shipment of hazardous waste to a TSD facility with the understanding that the TSD facility can accept and manage the waste and later receives that shipment back as a rejected load or residue may accumulate the waste on-site for <90 days or <180 days depending on the amount of hazardous waste on-site in that calendar month. [3745-52-34(M)]</i>		
<i>NOTE: Waste generated at one location and transported along a publicly accessible road for temporary consolidated storage or treatment on a contiguous property also owned by the same person is not considered "on-site" and manifesting and transporter requirements must be met. To transport "along" a public right-of-way the destination facility has to act as a transfer facility or have a permit because this is considered to be "off-site." For additional information see the definition of "on-site" in OAC rule 3745-50-10.</i>		
PERSONNEL TRAINING		
21.	Does the generator have a training program which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to their positions? [3745-65-16(A)(2)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
22.	Does the personnel training program, at a minimum, include instructions to ensure that facility personnel are able to respond effectively to emergencies involving hazardous waste by familiarizing them with emergency procedures, emergency equipment and emergency systems (where applicable)? [3745-65-16(A)(3)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>

NOTE: For facility employees that receive emergency response training pursuant to OSHA regulations, the facility is not required to provide separate emergency response training, provided that the overall facility training meets all the requirements of OAC 3745-65-16(A). [3745-65-16(A)(4)]

23.	Is the personnel training program directed by a person trained in hazardous waste management procedures? [3745-65-16(A)(2)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
24.	Do new employees receive training within six months after the date of hire (or assignment to a new position)? [3745-65-16(B)]- new employees will not normally be assigned to positions that require detailed training regarding Hazardous Management Plan requirements but do receive Hazmat/Emergency Response procedures, hazards of materials (HAZCOM), use of personal protective equipment, lockout – tagout, confined space entry, basic first aid, and fork truck safety	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
25.	Does the generator provide refresher training to employees during each period from January 1 st to December 31 st and does each training occur within 15 months after the previous training? [3745-65-16(C)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
26.	Does the generator keep records and documentation of:	
a.	Job titles? [3745-65-16(D)(1)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
b.	Job descriptions? [3745-65-16(D)(2)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
c.	Type and amount of training given to each person? [3745-65-16(D)(3)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
d.	Completed training or job experience required? [3745-65-16(D)(4)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
27.	Are training records for current personnel kept until closure of the facility and are training records for former employees kept for at least three years from the date the employee last worked at the facility? [3745-65-16(E)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>

NOTE: The following section can be used by the inspector to document that all personnel who are involved with hazardous waste management have been trained. The employees who need training (written and/or on-the -job) may include the following: environmental coordinators, drum handlers, emergency coordinators, personnel who conduct hazardous waste inspections, emergency response teams, personnel who prepare manifest, etc.

Job Performed	Name of Employee	Date Trained

CONTINGENCY PLAN

28.	Does the owner/operator have a contingency plan to minimize hazards to human health or the environment from fires, explosions or any unplanned release of hazardous waste? [3745-65-51(A)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
29.	Does the plan describe the following:	
a.	Actions to be taken in response to fires, explosions or any unplanned release of hazardous waste? [3745-65-52(A)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
b.	Arrangements with emergency authorities? [3745-65-52(C)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
c.	A current list of names, addresses and telephone numbers (office and home) of all persons qualified to act as emergency coordinator? [3745-65-52(D)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
d.	A list of all emergency equipment, including: location, a physical description and brief outline of capabilities? [3745-65-52(E)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
e.	An evacuation plan for facility personnel where there is possibility that evacuation may be necessary? [3745-65-52(F)]- evacuation maps are posted in all work areas of the facility	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>

NOTE: If the facility already has a "Spill Prevention, Control and Countermeasures Plan" under 40 CFR Part 112 or some

other emergency plan, the facility can amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with OAC requirements. The facility may develop one contingency plan which meets all regulatory requirements. Ohio EPA recommends that the plan be based on the "National Response Team's Integrated Contingency Plan Guidance (One Plan)." [3745-65-52(B)]

30.	Is a copy of the plan (plus revisions) kept on-site and been given to all emergency authorities that may be requested to provide emergency services? [3745-65-53(A)&(B)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
31.	Has the generator revised the plan in response to rule changes, facility, equipment and personnel changes, or failure of the plan? [3745-65-54]- during 4/29/13 CEI Silfex was revising to update minor changes	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
32.	Is an emergency coordinator available at all times (on-site or on-call)? [3745-65-55]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>

NOTE: The emergency coordinator shall be thoroughly familiar with: (a) all aspects of the facility's contingency plan; (b) all operations and activities at the facility; (c) the location and characteristics of waste handled; (d) the location of all records within the facility; (e) facility layout; and (f) shall have the authority to commit the resources needed to implement provisions of the contingency plan.

EMERGENCY PROCEDURES

33.	Has there been a fire, explosion or release of hazardous waste or hazardous waste constituents since the last inspection? If so:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>
a.	Was the contingency plan implemented? [3745-65-51(B)] on 7/19/11 due to release from the DP cell area	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
b.	Did the facility follow the emergency procedures in 3745-65-56(A) through (H)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
c.	Did the facility submit a report to the Director within 15 days of the incident as required by 3745-65-56(I)? The hazardous waste spill did not result in a threat to human health or to the environment.	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>

NOTE: OAC 3745-65-51(B) requires that the contingency plan be implemented immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents, which could threaten human health and the environment.

PREPAREDNESS AND PREVENTION

34.	Is the facility operated to minimize the possibility of fire, explosion, or any unplanned release of hazardous waste? [3745-65-31]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
35.	Does the generator have the following equipment at the facility, if it is required due to actual hazards associated with the waste:	
a.	Internal communications or alarm system? [3745-65-32(A)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
b.	Emergency communication device? [3745-65-32(B)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
c.	Portable fire control, spill control and decon equipment? [3745-65-32(C)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
d.	Water of adequate volume/pressure per documentation or facility rep? [3745-65-32(D)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>

NOTE: Verify that the equipment is listed in the contingency plan.

36.	Is emergency equipment tested (inspected) as necessary to ensure its proper operation in time of emergency? [3745-65-33]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
37.	Are emergency equipment tests (inspections) recorded in a log or summary? [3745-65-33]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
38.	Do personnel have immediate access to an internal alarm or emergency communication device when handling hazardous waste (unless the device is not required under 3745-65-32)? [3745-65-34(A)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
39.	If there is only one employee on the premises, is there immediate access to a device (eg. phone, and hand held two-way radio) capable of summoning	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>

	external emergency assistance (unless not required under 3745-65-32)? [3745-65-34(B)]	
40.	Is adequate aisle space provided for unobstructed movement of emergency or spill control equipment? [3745-65-35]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
41.	Has the generator attempted to familiarize emergency authorities with possible hazards and facility layouts? [3745-65-37(A)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
42.	Where authorities have declined to enter into arrangements or agreements, has the generator documented such a refusal? [3745-65-37(B)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>

SATELLITE ACCUMULATION AREA (SAA) REQUIREMENTS – None exist given Silfex only stores in tote size or larger

43.	Does the generator ensure that satellite accumulation area(s):	
	a.	Are at or near a point of generation? [3745-52-34(C)(1)]
		Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
	b.	Are under the control of the operator of the process generating the waste? [3745-52-34(C)(1)]
		Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
	c.	Do not exceed a total of 55 gallons of hazardous waste per waste stream? [3745-52-34(C)(1)]
		Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
	d.	Do not exceed one quart of acutely hazardous waste at any one time? [3745-52-34(C)(1)]
		Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
	e.	Containers are closed, in good condition and compatible with wastes stored in them? [3745-52-34(C)(1)(a)]
		Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
	f.	Containers are marked with words "Hazardous Waste" or other words identifying the contents? [3745-52-34(C)(1)(b)]
		Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
44.	Is the generator accumulating hazardous waste(s) in excess of the amounts listed in the preceding question? If so:	
	a.	Did the generator comply with 3745-52-34(A)(1) through (4) or other applicable generator requirements within three days? [3745-52-34(C)(2)]
		Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
	b.	Did the generator mark the container(s) holding excess with the accumulation date when the 55 gallon (one quart) limit was exceeded? [3745-52-34(C)(2)]
		Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>

NOTE: The satellite accumulation area is limited to 55 gallons of hazardous waste accumulated from a distinct point of generation in the process under the control of the operator of the process generating the waste (less than 1 quart for acute hazardous waste). There could be individual waste streams accumulated in an area from different points of generation.

USE AND MANAGEMENT OF CONTAINERS IN <90 DAY ACCUMULATION AREAS

45.	Has the generator marked containers with the words "Hazardous Waste?" [3745-52-34(A)(3)]	
		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
46.	Is the accumulation date on each container? [3745-52-34(A)(2)]	
		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
47.	Are hazardous wastes stored in containers which are:	
	a.	Closed (except when adding/removing wastes)? [3745-66-73(A)]
		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
	b.	In good condition? [3745-66-71]
		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
	c.	Compatible with wastes stored in them? [3745-66-72]
		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
	d.	Handled in a manner which prevents rupture/leakage? [3745-66-73(B)]
		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>

NOTE: Record location on process summary sheets, photograph the area, and record on facility map.

48.	Is the container accumulation areas(s) inspected at least once during the period from Sunday to Saturday? [3745-66-74] – Silfex missed a weekly	
		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>

inspection between 9/20/11 and 10/4/11. Returned to compliance when 10/4/11 inspection was performed.		
a.	Are inspections recorded in a log or summary? [3745-66-74]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
49.	Are containers of ignitable or reactive wastes located at least 50 feet (15 meters) from the facility's property line? [3745-66-76]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
50.	Are containers of incompatible wastes stored separately from each other by means of a dike, berm, wall or other device? [3745-66-77(C)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
51.	If the generator places incompatible wastes, or incompatible wastes and materials in the same container, is it done in accordance with 3745-65-17(B)? [3745-66-77(A)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
52.	If the generator places hazardous waste in an unwashed container that previously held an incompatible waste, is it done in accordance with 3745-65-17(B)? [3745-66-77(B)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
NOTE: OAC 3745-65-17(B) requires that the generator treat, store, or dispose of ignitable or reactive waste, and the mixture or commingling of incompatible wastes, or incompatible wastes and materials so that it does not create undesirable conditions or threaten human health or the environment.		
53.	If the generator has closed a <90 day accumulation area does the closure appear to have met the closure performance standard of 3745-66-11? [3745-52-34(A)(1)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
NOTE: Please provide a description of the unit and documentation provided by the generator for the file to demonstrate that closure was completed in accordance with the closure performance standards. If the generator has closed a <90 day tank, closure must also be completed in accordance with OAC 3745-66-97 (except for paragraph C of this rule). [3745-52-34]		
PRE-TRANSPORT REQUIREMENTS-No haz waste was ready for transport during 4/15/13 CEI		
54.	Does the generator package/label its hazardous waste in accordance with the applicable DOT regulations? [3745-52-30, 3745-52-31 and 3745-52-32(A)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
55.	Does each container ≤119 gallons have a completed hazardous waste label? [3745-52-32(B)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
56.	Before off-site transportation, does the generator placard or offer the appropriate DOT placards to the initial transporter? [3745-52-33]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>

**USED OIL INSPECTION CHECKLIST
GENERATORS, COLLECTION CENTERS AND AGGREGATION POINTS**

NOTE: 1. A facility is subject to the federal SPCC regulations (40 CFR 112) if it is non-transportation related (e.g., fixed) and has an aggregate above ground storage capacity greater than 1,320 gallons or a total underground storage capacity greater than 42,000 gallons of oil (including used oil), and there is reasonable expectation of a discharge to navigable waters.

2. Inspectors can check BUSTR's web-site at https://www.comapps.ohio.gov/sfm/fire_apps/bust/bustr/PublicInquiry.asp to determine if a UST containing used oil is registered with BUSTR. Inspectors may call BUSTR at 614-752-7938 or a BUSTR site coordinator to report an unregistered UST or a UST that appears to not be in compliance with BUSTR regulations. A list of BUSTR coordinators by county are at:

https://www.comapps.ohio.gov/sfm/fire_apps/bust/bustr/SearchByCounty.asp.

PROHIBITIONS

1.	Does the generator manage used oil in a surface impoundment or waste pile? If yes:	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
a.	Is the surface impoundment or waste pile regulated as a hazardous waste management unit? [3745-279-12(A)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>

NOTE: For example, used oil contaminated scrap metal stored in a pile.

2.	Is used oil used as a dust suppressant? [3745-279-12(B)]	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>
3.	Is off-specification used oil fuel burned for energy recovery in devices specified in 3745-279-12(C)?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>

NOTE: Multiple used oil checklists may be applicable if used oil handler is performing multiple tasks (e.g., if generating used oil and shipping directly to a burner, complete generator and marketer checklists at a minimum).

GENERATOR STANDARDS

4.	Does the generator mix hazardous waste with used oil? If so,	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>
a.	Is the mixture managed as specified in 3745-279-10(B)? [3745-279-21(A)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>

NOTE: Used Oil mixed with listed (3745-51-30 to 3745-51-35) or characteristic (3745-51-20 to 3745-51-24) hazardous waste are subject to regulation as a hazardous waste, unless the listed hazardous waste is listed solely because it exhibits a hazardous characteristic, and the resultant mixtures do not exhibit a characteristic. Mixtures of used oil and CESQG hazardous waste are subject to OAC Chapter 3745-279.

5.	Does the generator of a used oil containing greater than 1,000 ppm total halogens manage the used oil as a hazardous waste unless the presumption is rebutted successfully? [3745-279-21(B)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
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NOTE: If used oil contains greater than 1000 ppm total halogens, it is presumed to be listed hazardous waste until the presumption is successfully rebutted.

6.	Does the generator store used oil in tanks; or containers; or a unit(s) subject to regulation as a hazardous waste management unit? [3745-279-22(A)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
7.	Are containers and aboveground tanks used to store used oil in good condition with no visible leaks? [3745-279-22(B)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
8.	Are containers, above ground tanks, and fill pipes used for underground tanks clearly labeled or marked "Used Oil?" [3745-279-22(C)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
9.	Has the generator, upon detection of a release of used oil, done the following: [3745-279-22(D)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
a.	Stopped the release?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
b.	Contained the release?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
c.	Cleaned up and properly managed the used oil and other materials?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
d.	Repaired or replaced the containers or tanks prior to returning them to service, if necessary?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>

ON-SITE BURNING IN SPACE HEATER		
10.	Does the generator burn used oil in used-oil fired space heaters? [3745-279-23] If so:	
a.	Does the heater burn only used oil that owner/operator generates or used oil received from household do-it-yourself (DIY) used oil generators?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
b.	Is the heater designed to have a maximum capacity of not more than 0.5 million BTU per hour?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
c.	Are the combustion gases from heater vented to the ambient air?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
<i>NOTE: Ash accumulated in a space heater must be managed in accordance with 3745-279-10(E).</i>		
GENERATOR TRANSPORTATION		
11.	Does the generator have the used oil hauled only by transporters that have obtained a U.S. EPA ID#? [3745-279-24] – Silfex uses Valicor Environmental Services	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
12.	If the generator self-transported used oil to an approved collection site or to an aggregation point owned by the generator: [3745-279-24]	
a.	Does the generator transport used oil in a vehicle owned by the generator or an employee of the generator? [3745-279-24]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
b.	Does the generator transport more than 55 gallons of used oil at any time? [3745-279-24]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
<i>NOTE: Used oil generators may arrange for used oil to be transported by a transporter without a U.S. EPA ID # if the used oil is reclaimed under a contractual agreement (i.e., tolling arrangement).</i>		
COLLECTION CENTERS AND AGGREGATION POINTS		
13.	Is the DIY used oil collection center in compliance with the generator standards in 3745-279-20 to 3745-279-24? [3745-279-30]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
14.	Is the non-DIY used oil collection center registered with Ohio EPA? [3745-279-31]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
15.	Is the used oil aggregation point in compliance with the generator standards in 3745-279-20 to 3745-279-24? [3745-279-32]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
<i>NOTE: Complete Used Oil Generator and any other applicable used oil handler checklist (e.g., marketer, burner, etc.) for used oil collection centers and aggregation points.</i>		

SMALL QUANTITY UNIVERSAL WASTE HANDLER REQUIREMENTS

Large Quantity Universal Waste Handler (LQUWH) = 5,000 Kg or more

Small Quantity Universal Waste Handler (SQUWH) = 5,000 Kg or less

PROHIBITIONS

1.	Did the SQUWH dispose of universal waste? [3745-273-11(A)]	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
2.	Did the SQUWH dilute or treat universal waste, except when responding to releases as provided in OAC rule 3745-273-17 or managing specific wastes as provided in OAC rule 3745-273-13? [3745-273-11(B)]	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>

WASTE MANAGEMENT AND LABELING/MARKING

UNIVERSAL WASTE BATTERIES

3.	Are batteries that show evidence of leakage, spillage or damage that could cause leaks contained? [3745-273-13(A)(1)]	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
4.	If batteries are contained, are the containers closed and structurally sound, compatible with the contents of the battery and lack evidence of leakage, spillage or damage that could cause leakage? [3745-273-13(A)(1)]	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
5.	Are the casings of the batteries breached, not intact, or open (except to remove the electrolyte)? [3745-273-13(A)]	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
6.	If the electrolyte is removed or other wastes generated, has it been determined whether the electrolyte or other wastes exhibit a characteristic of hazardous waste? [3745-273-13(A)(3)]	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
a.	If the electrolyte or other waste is characteristic, is it managed in compliance with OAC Chapters 3745-50 through 3745-69? [3745-273-13(A)(3)(a)]	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
b.	If the electrolyte or other waste is not hazardous, is it managed in compliance with applicable law? [3745-273-13(A)(3)(b)]	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
7.	Are the batteries or containers of batteries labeled with the words "Universal Waste-Battery(ies)" or "Waste Battery(ies)" or "Used Battery(ies)"? [3745-273-14(A)]	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>

UNIVERSAL WASTE PESTICIDES

8.	Does the SQUWH prevent releases to the environment by managing pesticides in containers that are closed, structurally sound, compatible with the pesticides, and lack evidence of leakage, spillage, or damage? [3745-273-13(B)(1)]	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
9.	If the original pesticide container is in poor condition, was it over-packed into an acceptable container? [3745-273-13(B)(2)]	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
10.	If the pesticide is stored in a tank, are the requirements of rules 3745-66-90 through 3745-66-101, except for paragraph (C) of 3745-66-97, of the OAC met? (Use tank checklist) [3745-273-13(B)(3)]	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
11.	If pesticides are stored in a transport vehicle, is it closed, structurally sound, compatible with the pesticide(s), and does it lack evidence of leakage, spillage, or damage that could cause leakage? [3745-273-13(B)(4)]	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
12.	Are recalled universal waste pesticides that are in containers, tanks, or transport vehicles labeled with the label that was on or accompanied the product as sold or distributed and labeled with the words "Universal Waste Pesticides" or "Waste Pesticides"? [3745-273-14(B)(1)&(2)]	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
13.	Are unused pesticide products that are in containers, tanks, or transport vehicles labeled with either the label that was on the product when purchased (if still legible), the appropriate DOT label, or the designated label prescribed by the pesticide collection program and labeled with the words "Universal Waste-Pesticides" or "Waste Pesticides"? [3745-273-14(C)(1)&(2)]	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>

UNIVERSAL WASTE MERCURY-CONTAINING EQUIPMENT

14.	Has mercury-containing equipment with non-contained elemental mercury	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
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	or that shows evidence of leakage, spillage or damage that could cause leaks been placed in a container that is closed, structurally sound, compatible with contents of the device and lacks evidence of leakage, spillage or damage that could cause leakage and is designed to prevent escape of mercury into the environment by volatilization or any other means? [3745-273-13(C)(1)]	
15.	If the mercury-containing ampules are removed, does the SQUWH: [3745-273-13(C)(2)]	
	a. Remove and manage the ampules in a manner to prevent breakage and is the removal done over or in a containment device? [3745-273-13(C)(2)(a)&(b)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
	b. Have a clean-up system readily available to transfer spilled mercury to another container that meets the requirements of OAC rule 3745-52-34 and is the spilled mercury transferred immediately? [3745-273-13(C)(2)(c)&(d)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
	c. Ensure that the area where ampules are removed is well ventilated and monitored in compliance with applicable OSHA exposure levels for mercury? [3745-273-13(C)(2)(e)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
	d. Ensure that employees are thoroughly familiar with the proper waste handling and emergency procedures? [3745-273-13(C)(2)(f)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
	e. Ensure that removed ampules are stored in closed, non-leaking containers that are in good condition? [3745-273-13(C)(2)(g)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
	f. Pack removed ampules in containers with packing material to prevent breakage during storage, handling and transportation? [3745-273-13(C)(2)(h)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
16.	If the open original housing holding mercury is removed from a mercury-containing equipment that does not contain an ampule, does the SQUWH: [3745-273-13(C)(3)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
	a. Immediately seal the original housing holding the mercury with an air-tight seal to prevent the release of any mercury to the environment? [3745-273-13(C)(3)(a)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
	b. Follow all requirements for removing ampules and managing removed ampules in accordance with 3745-273-13(C)(2)? [3745-273-13(C)(3)(b)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
17.	When removing mercury containing ampules from mercury-containing equipment or sealing mercury from its original housing if there are mercury or clean-up residues resulting from spills or leaks, and/or other waste generated (e.g., remaining mercury-containing device), has it been determined whether those exhibit a characteristic of hazardous waste identified in OAC rules 3745-51-20 to 3745-51-24? [3745-273-13(C)(4)(a)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
	a. If the residues, and/or wastes are characteristic, are they managed in compliance with Chapters 3745-50 through 3745-69, 3745-205, 3745-256, 3745-266, and 3745-270 of the Administrative Code? (The handler is considered the generator of the mercury, residues, and/or other waste and is subject to OAC Chapter 3745-52) [3745-273-13(C)(4)(b)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
18.	Is mercury-containing equipment or containers of mercury-containing equipment labelled either "Universal Waste-Mercury-Containing Equipment" or "Waste Mercury-Containing Equipment" or "Used Mercury-Containing Equipment"? [3745-237-14(D)(1)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
19.	Are mercury-containing thermostats or containers containing ONLY thermostats labeled either "Universal Waste-Mercury Thermostat(s)" or "Waste Mercury Thermostat(s)" or "Used Mercury Thermostat(s)"? [3745-273-14(D)(2)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
UNIVERSAL WASTE LAMPS		
20.	Does the SQUWH contain lamps in containers or packages that are	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>

	structurally sound, adequate to prevent breakage, and compatible with contents of the lamps? Are containers or packages closed and do they lack evidence of leakage, spillage or damage that could cause leakage? [3745-273-13(D)(1)] – Recommending Silfex uses velcro to keep flaps on storage box securely closed	
21.	Are lamps that show evidence of breakage, leakage or damage that could cause a release of mercury or hazardous constituents into the environment immediately cleaned up? Are they placed into a container that is closed, structurally sound, compatible with the contents of the lamps, and lack evidence of leakage, spillage or damage that could cause leakage or releases of mercury or hazardous waste constituents to the environment? [3745-273-13(D)(2)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
<p>NOTE: Treatment (such as crushing) by a UWH is prohibited under this rule unless the facility is permitted for such activities [3745-273-31(B)]. A generator crushing lamps must manage lamps according to hazardous waste rules (OAC Chapter 3745-52). Lamp crushing is a form of generator treatment (OAC rule 3745-52-34). Crushed lamps must be transported by a registered hazardous waste transporter to a permitted hazardous waste facility using a hazardous waste manifest.</p>		
22.	Are the lamps or containers or packages of lamps labeled with the words "Universal Waste-Lamp(s)" or "Waste Lamp(s)" or "Used Lamp(s)"? [3745-273-14(E)] –	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
ACCUMULATION TIME		
23.	Is the waste accumulated for less than one year? [3745-273-15(A)]	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>
a.	If not, is the waste accumulated over one year in order to facilitate proper recovery, treatment or disposal? (Burden of proof is on the handler to demonstrate) [3745-273-15(B)] – lithium batteries were accumulated over one year during 4/29/13 CEI. Silfex corrected this violation on 5/2/13 when they shipped these batteries off site	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>
<p>NOTE: Accumulation is defined as date generated or date received from another handler.</p>		
24.	Is the handler able to demonstrate the length of time the universal waste has been accumulated? [3745-273-15(C)] If yes, describe below: by date on accumulation boxes and manifest records	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
EMPLOYEE TRAINING		
25.	Are employees who handle or have the responsibility for managing universal waste informed of waste handling/emergency procedures, relative to their responsibilities? [3745-273-16]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
RESPONSE TO RELEASES		
26.	Are releases of universal waste and other residues immediately contained? [3745-273-17(A)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
27.	Is the material released characterized? [3745-273-17(B)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
28.	If the material released is a hazardous waste, was it managed as required in OAC Chapters 3745-50 through 3745-69? (If the waste is hazardous, the handler is considered the generator of the waste and is subject to OAC Chapter 3745-52) [3745-273-17(B)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
OFF-SITE SHIPMENTS		

NOTE: If a SQUWH self-transport waste, then the handler must comply with the Universal Waste transporter requirements.		
29.	Are universal wastes sent to either another handler, destination facility or foreign destination? [3745-273-18(A)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
30.	Is the handler aware of DOT requirements for packaging and shipping? If no, make aware of 49 CFR 171-180.	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
31.	Prior to shipping universal waste off-site, does the originating handler ensure that the receiver agrees to receive the shipment? [3745-273-18(D)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
32.	Has the originating handler ever had an off-site shipment rejected by another handler or destination facility?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
	a. If yes, did the originating handler receive the waste back or agree to where the shipment was sent? [3745-273-18(E)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
33.	If a handler rejects a partial or full load from another handler, does the receiving handler contact the originating handler and discuss and do <u>one of the following</u> :	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
	a. Send the waste back to the originating handler or send the shipment to a destination facility (If both the originating and receiving handler agree)? [3745-273-18(F)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
34.	If the handler received a shipment of hazardous waste that was not a universal waste, did the SQUWH immediately notify Ohio EPA? [3745-273-18(G)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
EXPORTS		
NOTE: Small quantity handlers that export waste to the countries listed in 40 CFR 262.58(a)(1) are subject to 40 CFR 262 subpart H. Small quantity handlers that export waste to a foreign destination other than the countries listed in 40 CFR 262.58(a)(1) are subject to 40 CFR 262.53, 40 CFR 262.56(a)(1) to (a)(4), (a)(6), and (b), 40 CFR 262.57, and 40 CFR 262 subpart E. [3745-273-20]		
NOTE: Violations regarding exporting universal waste to foreign destinations should be referred to U.S. EPA Region 5 because the federal counterpart provisions are not delegable to states.		

**GENERATOR LDR REQUIREMENTS-REVIEWED LDR FORM ASSOCIATED WITH D002 WASTE ON
RANDOMLY SELECTED MANIFEST 010735034 JJK SHIPPED ON 1/17/13**

NOTE: This LDR checklist does not include the requirements for generators that treat to meet LDR standards. If the generator treats, the inspector should use the stand-alone Generator LDR checklist instead of this checklist.

GENERAL REQUIREMENTS

1.	If LDRs do not apply, does the generator have a statement that lists how the HW was generated, why LDRs don't apply and where the HW went? [3745-270-07(A)(7)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
2.	Did the generator determine if the HW/soil must be treated to meet the LDR treatment standard prior to disposal? Generator knowledge or testing may be used. [3745-270-07(A)(1)] If not,	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
a.	Did the generator send the waste to a permitted HW TREATMENT facility? [3745-270-07(A)(1)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
<p><i>NOTE: This is done by determining if the HW/soil contains levels of constituents greater than the levels given in its LDR treatment standard in 3745-270-40. However, if a specific treatment method is given in 3745-270-40 for the HW, no determination is required [3745-270-07(A)(1)(b)]. If soil, generator can choose to have soil treated to LDR levels given in 3745-270-49 (alternative treatment levels for soils).</i></p>		
3.	Does the generator have documentation of how he determined whether the HW/soil meets or does not meet the LDR treatment standard in 2, above? [3745-270-07(A)(6)(a) or 3745-270-07(A)(6)(b)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
4.	Does the generator keep the documentation required in #2, above, on-site for at least three years from the last date the HW/soil was sent on-site/off-site for treatment/disposal? [3745-270-07(A)(8)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
5.	Does the generator generate a listed HW that exhibits a characteristic? If yes,	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
a.	Did the generator determine if the listed HW exhibits a characteristic that is not treated under the LDR treatment standard for the listed HW? [3745-270-09(A)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
<p><i>FOR EXAMPLE: F006 that exhibits the characteristic for silver or K062 that is corrosive, D002. Review LDR treatment standard in 3745-270-40 to determine what constituents the listed HW is treated for.</i></p>		
6.	Did the generator determine if its characteristic HW contains underlying hazardous constituents that need to be treated? [3745-270-09(A)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
<p><i>NOTE: This is done by evaluating which underlying hazardous constituents (UHC) are in the HW at levels above the universal treatment standards given in 3745-270-48. This requirement does not apply to high total organic carbon (i.e., contains >10% TOC) D001 wastes or listed HWs.</i></p>		
<p><i>NOTE: Written documentation of this determination is not required.</i></p>		
7.	Did the generator treat his HW /soil on-site <u>to meet</u> the LDR treatment standard?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>
<p><i>NOTE: If "Yes" see question #16.</i></p>		
8.	Did the generator send a one-time LDR notification form to the TSD with the first shipment to that facility? [3745-270-07(A)(2)]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
a.	If the generator chose not to make the determination of whether his waste must be treated, did he send a notice to the TSD facility with each shipment? [3745-270-07(A)(2)] If so, did the notice include:	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
i.	Applicable HW codes?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
ii.	Manifest number of the first shipment to the TSD?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
iii.	A statement that conveys that the HW may or may not be subject to the LDR treatment standards and the TSD must make that determination.?"	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
9.	Did the generator resubmit the LDR notification form to the TSD when the HW changed or the generator used a new TSD? [3745-270-07(A)(2)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>

10.	Does the generator have a copy of the LDR notification form/notice on file? [3745-270-07(A)(2)]		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
a.	Is the form/notice kept on file for three years after last HW shipped? [3745-270-07(A)(8)]		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
NOTIFICATION FORM					
11.	Does the LDR Notification form contain the following information:				
a.	Manifest number of the first waste shipment to the TSD? [3745-270-07(A)(2)]		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
b.	Applicable waste codes (includes characteristic codes for a listed HW if applicable)? [3745-270-07(A)(2)]		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
c.	A statement that conveys that the HW is subject to LDRs and must be treated to meet LDR treatment requirements? [3745-270-07(A)(2)]		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
d.	A designation whether the HW is a wastewater or non-wastewater? [3745-270-07(A)(2)]		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
<i>NOTE: A wastewater contains <1% by wt. total suspended solids (TSS) and <1% by wt. TOC. If you doubt the HW is a wastewater or non-wastewater, the HW can be tested using for example, Standard Methods (SM) 160.2 for TSS, SW-846 method 9060a for TOC.</i>					
e.	Designation of the waste subcategory when applicable? [3745-270-07(A)(2)]		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
<i>NOTE: Subcategories are found on the LDR treatment standards table under the applicable waste code. Not all HWs have subcategories</i>					
f.	A listing of the underlying hazardous constituents for which a characteristic waste must be treated? [3745-270-07(A)(2)]		Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
<i>NOTE: Not required if the waste is high TOC D001 or the TSD tests its treatment residues for all underlying hazardous constituents.</i>					
g.	If the HW is F001-F005 or F039, did the generator note on the LDR form what solvents or constituents, respectively, the waste contains and must be treated for? [3745-270-07(A)(2)]		Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
<i>NOTE: Not required if the TSD tests its treatment residues for all underlying hazardous constituents.</i>					
PROHIBITED DILUTION					
12.	Is the HW treated by burning? If "No" go to #15.		Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
13.	Is the HW a metal-bearing HW?		Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
<i>NOTE: Generally, metal-bearing HWs contain heavy metals above TCLP levels or were listed due to the presence of metals. A list of the restricted metal-bearing HWs is given in the Appendix to 3745-270-03.</i>					
14.	a. Metal-bearing HWs cannot be incinerated, combusted or, blended and burned for fuel unless one of the following conditions apply. [3745-270-03(c)]				
	i.	Contains > 1% TOC?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
	ii.	Contains organic constituents or cyanide at levels greater than the UTS levels?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
	iii.	Is made up of combustible material e.g., paper, wood, plastic?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
	iv.	Has a reasonable heating value (e.g., > 5000 Btu)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
	v.	Co-generated with a HW that must be combusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
	b.	If all responses to 14 a.i. through 14 a.v. are "No", HW is being improperly treated by dilution, violation of 3745-270-03(C). Is HW being treated by dilution?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>

15.	Was the HW treated by wastewater treatment?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
a.	Is a LDR treatment method, other than DEACT or a numerical value, specified for the waste? [3745-270-03(B) and 3745-270-40(A)(3)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
<i>NOTE: If "Yes", HW is improperly being treated by dilution.</i>		
b.	Does the waste carry the D001 code <u>and</u> contain $\geq 10\%$ TOC?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
c.	Does the wastewater treatment process include a process to separate/recover the organic phase of the waste?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
<i>NOTE: If the answers to b & c are "yes" and "no", respectively, waste is improperly being treated by dilution and generator is in violation of [3745-270-03(B)] and 3745-270-40(A)(3)].</i>		
<i>NOTE: A list of separation/recovery processes are given in 3745-270-42 under RORG.</i>		

PROCESS, WASTE, P2 SUMMARY SHEET

Facility Name: Silfex Inc **Facility Type:** LQG SQG CESQG TSD **Date of Inspection:** 04/29/13 **EPA ID#:** OHR000026690

Waste Generated			On- or Off-Site Management		P2 Activities	
Process/Activity Generating Waste (e.g. plating bath, machining, baghouse, painting, general maintenance, etc)	Waste Description (e.g. sludge, solvent, ash, used oil, spent lamps, etc.) and EPA Waste Code, if applic.	QTY Generated per Month, Type of Accumulation (container, tank, etc) and location of waste accumulation area	Type of On-Site Treatment (recycle, wwt, etc)	Name, state, and type of activity occurring at the off-site facility.	Current P2 Activities	P2 Opportunities
1 acid etching and cleaning process manual process waste goes to container automated process waste goes to tank	Acid Etch solution D002	50,652 lbs	tank or container storage - plumbed to plastic tote located outside in a metal storage cabinet	EEl, TSD, OH		
2 dislocation piece etching process	Decorative chrome Etch solution D002, D007	986 lbs	container storage - plumbed to plastic tote located outside in a metal storage cabinet (<90 day storage area)	EEl TSD, OH		
3						

4							
5							
6							
7							
8							
9							

REMARKSGENERAL INFORMATION

General Process Information:

Silfex manufactures, grows and machines silicon crystals for use in electronics. The totes in the metal storage shed outside are considered containers; since they are portable, they are not considered tanks. When full the totes are transported by fork-truck to a loading dock and picked up by the hazardous waste transporter.

Regulatory/Enforcement History (if applicable):

Additional P2 remarks and information:

Utilization of waste water treatment plant on-site could reduce overall volume of waste but would still have D007 sludge to dispose of as a hazardous waste

Would this facility be interested in a P2 assessment? Yes* No *If yes, refer promptly to your district P2 coordinator.

Office of Compliance Assistance and Pollution Prevention - 1-800-329-7518 or p2mail@epa.state.oh.us or www.epa.state.oh.us/ocapp/ocapp.html

Other:

Silfex was going to follow up with Joleen Cook about using their silicon swarth (diatomaceous earth) as alternative daily cover.