



State of Ohio Environmental Protection Agency

Northeast District Office

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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Karleski, Director

December 17, 2009

RE: **FLUID MECHANICS, INC.
CUYAHOGA COUNTY
OHD 059 049 882
CESQG NOV**

Mr. Jim Hardy
Fluid Mechanics, Inc.
4521 W. 160th Street
Cleveland, Ohio 44135

Dear Mr. Hardy:

Thank you for accompanying me during Ohio EPA's November 20 and December 11, 2009, compliance inspection of Fluid Mechanics, Inc. at 4521 W. 160th Street, Cleveland, Ohio. I inspected Fluid Mechanics 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). Fluid Mechanics was represented by yourself and Mr. Robert Dills. The facility is a rebuilder of mechanical fuel injection systems for large 2 and 4 cycle diesel engines.

Fluid Mechanics generates spent methylene chloride blended degreasing solvent (F001) hazardous waste from a dip tank degreaser. The cleaning solvent is changed as needed, depending on usage. It is picked up directly from the unit and recycled by Kwik Kleen, with no on-site accumulation of the hazardous waste solvent. Based upon my review of the hazardous waste manifests, the facility is a conditionally exempt small quantity generator. No hazardous waste was being accumulated on-site at the time of the inspection.

During my investigation, I also inspected Fluid Mechanics for compliance with Ohio's used oil and Universal Waste rules. Fluid Mechanics was found to be in violation of the following Universal Waste rule found in Chapter 3745 of the Ohio Administrative Code:

1. **Waste Evaluation, OAC 3745-52-11:** Fluid Mechanics failed to evaluate spent fluorescent lamps prior to their disposal as a solid waste. You must evaluate these wastes to determine if they are hazardous wastes. To abate this violation, within 2 weeks of receipt of this letter submit documentation concerning the evaluation and proposed management of the lamps at your facility. Please note that you may manage the spent fluorescent lamps as a Universal Waste under OAC Chapter 3745-273.

Enclosed you will find a copy of the checklist that I completed as a result of the inspection. I have also included the Ohio EPA's guidance document **Fluorescent Lamps: What You Should Know**.



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Should you have any questions, please feel free to call me at (330) 963-1231. You can find copies of the rules and other information on the division's web page at: <http://www.epa.state.oh.us/dhwm/>.

Sincerely,



Tom Roth
District Representative
Division of Hazardous Waste Management

TR:cl
Enclosure

ec: Harry Sarvis, DHWM, CO
Nyal McKenna, DHWM, NEDO

cc: Natalie Oryshkewych, DHWM, NEDO

NOTICE:

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



**CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR REQUIREMENTS
COMPLETE AND ATTACH A PROCESS, WASTE, P2 SUMMARY SHEET**

CESQG: ≤100Kg. (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 x Specific Gravity x 8.345 = Amounts in pounds.

Safety Equipment Used:

WASTE EVALUATION

1.	Have all wastes generated at the facility been adequately evaluated? [3745-52-11]	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
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GENERATOR CLASSIFICATION

2.	Does the generator produce <100 kg. of hazardous waste per month? [conditionally exempt small quantity generator ("CESQG")]	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
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NOTE: If quantities of hazardous waste accumulated on-site at any one time exceed 1,000 Kg. - or the generator produces between 100 and 1,000 Kg. of hazardous waste per month, it is operating as a Small Quantity Generator ("SQG"). If so, complete the Small Quantity Generator Requirements checklist.

OFF-SITE SHIPMENT OF HAZARDOUS WASTE

3.	Does the CESQG ensure delivery of hazardous waste(s) to an off-site permitted TSD? [3734.02(F)].	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
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TREATMENT OF HAZARDOUS WASTE

4.	Does the generator treat hazardous waste in a:			
	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 3745-66-101 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 the CESQG conducts treatment they are subject to the LQG requirements.

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

MIX HAZARDOUS WASTE WITH USED OIL

5.	Does the CESQG mix its hazardous waste with used oil for the purpose of burning for energy recovery? [3745-51-05(J)] If so:	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
	a. Does the CESQG manage the mixture in accordance with 3745-279-21?	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 No N/A

a. Is the surface impoundment or waste pile regulated as a hazardous waste management unit? [3745-279-12(A)] Yes No N/A

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 No N/A

3. Is off-specification used oil fuel burned for energy recovery in devices specified in 3745-279-12(C)? Yes No N/A

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 No N/A

a. Is the mixture managed as specified in 3745-279-10(B)? [3745-279-21(A)] Yes No N/A

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 No N/A

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 No N/A

7. Are containers and aboveground tanks used to store used oil in good condition with no visible leaks? [3745-279-22(B)] Yes No N/A

8. Are containers, above ground tanks, and fill pipes used for underground tanks clearly labeled or marked "Used Oil?" [3745-279-22(C)] Yes No N/A

9. Has the generator, upon detection of a release of used oil, done the following: [3745-279-22(D)] Yes No N/A

a. Stopped the release? Yes No N/A

b. Contained the release? Yes No N/A

c. Cleaned up and properly managed the used oil and other materials? Yes No N/A

d. Repaired or replaced the containers or tanks prior to returning them to service, if necessary? Yes No N/A

[Facility Name/Inspection Date]

[ID Number]



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 checked="" 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 checked="" 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 checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/>

NOTE: Ash accumulated in a space heater must be managed in accordance with 3745-279-10(E).

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]	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
12.	If the generator self-transport 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 checked="" 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"/>

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).

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 checked="" 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 checked="" 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 checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/>

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.

[Facility Name/Inspection Date]

[ID Number]

Used Oil Checklist for Generators/August 2009

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SMALL QUANTITY UNIVERSAL WASTE HANDLER REQUIREMENTS – BATTERIES AND LAMPS

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 checked="" type="checkbox"/> No <input 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 type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input checked="" 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 type="checkbox"/> No <input checked="" 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 - Batteries" or "Waste Battery(ies)" or "Used Battery(ies)"? [3745-273-14(A)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>

UNIVERSAL WASTE LAMPS

8.	Does the SQUWH contain lamps in containers or packages that are 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)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
9.	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"/>

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.

10.	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 type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
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ACCUMULATION TIME		
11.	Is the waste accumulated for less than one year? [3745-273-15(A)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" 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)]	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/>
<i>NOTE: Accumulation is defined as date generated or date received from another handler.</i>		
12.	Is the handler able to demonstrate the length of time the universal waste has been accumulated? [3745-273-15(C)] If yes, describe below:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/>
EMPLOYEE TRAINING		
13.	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 type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/>
RESPONSE TO RELEASES		
14.	Are releases of universal waste and other residues immediately contained? [3745-273-17(A)]	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/>
15.	Is the material released characterized? [3745-273-17(B)]	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/>
16.	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 checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/>
OFF-SITE SHIPMENTS		
<i>NOTE: If a SQUWH self-transportes waste, then the handler must comply with the Universal Waste transporter requirements.</i>		
17.	Are universal wastes sent to either another handler, destination facility or foreign destination? [3745-273-18(A)]	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/>
18.	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 checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/>
19.	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 checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/>
20.	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)(2)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
21.	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 checked="" 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)(2)]	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/>
22.	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 checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/>
EXPORTS		
23.	Is waste being sent to a foreign destination? If so:	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>



	a. Does the small quantity handler comply with primary exporter requirements in OAC rules 3745-52-53, 3745-52-56, and 3745-52-57? [3745-273-20(A)]	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/>
	b. Is waste exported only upon consent of the receiving country and in conformance with the U.S. EPA "Acknowledgment of Consent" as defined in OAC rules 3745-52-50 to 3745-52-57? [3745-273-20(B)]	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/>
	c. Is a copy of the U.S. EPA "Acknowledgment of Consent" provided to the transporter? [3745-273-20(C)]	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/>

