



Environmental  
Protection Agency

John R. Kasich, Governor  
Mary Taylor, Lt. Governor  
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August 2, 2012

Mr. Keith Kinnison  
Tech/R2, Inc.  
6606-B Tussing Rd.  
Columbus, OH 43068

Re: **CDO Complaint #4314 Franklin County**  
**Tech/R2 Inc.** OHR 000 171439

Dear Mr. Kinnison:

Thanks for your time and assistance during my visit to Tech/R2's facility at 6606-B Tussing Road in Columbus, Ohio on May 14, 2012. The purpose of my visit was to investigate a complaint that Ohio EPA had received about generation and management of potential hazardous wastes there. Ohio's laws under Chapter 3745 of the Ohio Administrative Code and Chapter 3734 of the Ohio Revised Code establish a system for safe and responsible management of hazardous wastes and universal wastes. This letter summarizes our findings.

Your business generates universal waste batteries, and handles used and returned computer and electronic equipment for reuse and recycling. All the operations are indoors and no CRTs are dismantled. Waste batteries separated from equipment were being segregated by type and collected for proper recycling by an offsite permitted facility. No loads of waste batteries are accepted, only as part of used equipment to be sorted and reused/resold/recycled. Waste lamps may be generated sometimes, but were not present in accumulation at the time of my visit.

The following violations were noted.

1. **Universal Waste Battery Labeling, OAC rule 3745-273-14(A):** Batteries or containers of batteries must be labeled with the words, "Waste Battery(ies)", "Universal Waste - Batteries", or "Used batteries".

Bins of batteries accumulated for recycling lacked this specific marking.

*The problem has now been corrected, and thank you for sending emailed photographs on May 23<sup>rd</sup> showing this was done.*

**Universal Waste Accumulation Time Records, OAC rule 3745-273-15(C):** A handler must be able to demonstrate the length of time the universal waste has been accumulated.

Records and/or markings were inadequate to demonstrate and ensure that universal waste (i.e., waste batteries) were being held for less than the one year time limit.

*Tubs of waste batteries have now been marked with an accumulation start date, although it was unclear how this might correlate to actual records of outbound waste battery shipments for recycling. Please affirm and ensure that any such markings and records are consistent.*

2. **Off-site shipments of Universal Waste to another handler, OAC rule 3745-273-18(A):** Universal wastes not exported to authorized foreign destinations, must be sent to either another handler or universal waste destination facility.

Records were insufficient in detail and/or completeness, to verify that waste batteries of various types were being sent at the proper minimum frequency to properly authorized facilities. Uninterruptable Power Supply units were the only types shown in the records we were able to review.

*Ensure that adequate records of this type are kept. If other copies of past records are located, provide them with a response to us.*

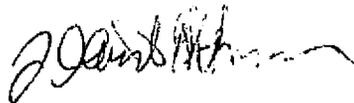
Please send a response within 15 days, describing actions taken to resolve the violations #2 and #3 above. Ohio EPA requires timely actions for compliance.

The following comments are also offered at this time:

- We understand your business has had staff turnover very recently in a position that involved your waste shipment recordkeeping, and that other record copies are being pulled together for a follow-up response by Tech/R2.
- Tech/R2's efforts to meet pending national voluntary R2 Certification Program standards are noted. Compliance requirements outlined above should be consistent with any such effort.

I am enclosing a checklist completed during this inspection. An "internal" tracking I.D. number has also been assigned to your facility. If you have any questions about items discussed in this letter, do not hesitate to contact me by phone at (614) 728-3885.

Sincerely,



J. David Hohmann  
Division of Materials and Waste Management  
Central District Office

c: CDO File

JDH/nsm TechR2 NOV pRTC

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

# SMALL QUANTITY UNIVERSAL WASTE HANDLER REQUIREMENTS

*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)] <i>RMK: Batteries being managed at the time of this inspection appeared to be sealed and intact.</i>	Yes <input type="checkbox"/> No <input 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 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 checked="" type="checkbox"/> N/A <input 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)] <i>RMK: No, but has since been corrected</i>	Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>

### UNIVERSAL WASTE PESTICIDES [N/A, not managed/handled at time of inspection]

### UNIVERSAL WASTE MERCURY-CONTAINING EQUIPMENT [N/A, not managed/handled at time of inspection]

14.	Has mercury-containing equipment with non-contained elemental mercury 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)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
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)] <i>RMK: Not being managed at time of inspection.</i>	
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"/>
<b>UNIVERSAL WASTE LAMPS</b> [N/A, not managed/handled at time of inspection]		
20.	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 type="checkbox"/>
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 type="checkbox"/>
<i>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.</i>		
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 type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
<b>ACCUMULATION TIME</b>		
23.	Is the waste accumulated for less than one year? [3745-273-15(A)] <i>RMK: Due to lack of sufficient universal waste shipping records, the answer to this question was unclear</i>	Yes <input type="checkbox"/> No <input 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)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
<i>NOTE: Accumulation is defined as date generated or date received from another handler.</i>		
24.	Is the handler able to demonstrate the length of time the universal waste has been accumulated? [3745-273-15(C)] <i>RMK: Shipping records lacked the completeness and detail to make this demonstration sufficiently clear.</i>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>
<b>EMPLOYEE TRAINING</b>		
25.	Are employees who handle or have the responsibility for managing	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>

	universal waste informed of waste handling/emergency procedures, relative to their responsibilities? [3745-273-16]	
<b>RESPONSE TO RELEASES</b>		
26.	Are releases of universal waste and other residues immediately contained? [3745-273-17(A)] <i>RMK: All done indoors, no releases noted occurring</i>	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"/>
<b>OFF-SITE SHIPMENTS</b>		
<i>NOTE: If a SQUWH self-transport waste, the handler must comply with Universal Waste transporter requirements.</i>		
29.	Are universal wastes sent to either another handler, destination facility or foreign destination? [3745-273-18(A)] <i>RMK: Due to lack of sufficient universal waste shipping records, the answer to this question was unclear. The frequency, type, and destination for universal waste battery recycling shipments could not be confirmed.</i>	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input 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 checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input 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)] <i>RMK: Due to lack of sufficient universal waste shipping records, the answer to this question was unclear.</i>	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
32.	Has the originating handler ever had an off-site shipment rejected by another handler or destination facility? <i>RMK: Due to lack of sufficient universal waste shipping records, the answer to this question was unclear.</i>	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input 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 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 it, then either 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"/>
<b>EXPORTS</b> <i>RMK: During the inspection, I was told that no exports of universal waste were being made. This could not be separately verified due to an apparent lack of sufficient universal waste shipping records.</i>		
35.	Is waste being sent to a foreign destination? If so: N/A	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input 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 type="checkbox"/> N/A <input 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 type="checkbox"/> N/A <input 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 type="checkbox"/> N/A <input type="checkbox"/>