

Environmental  
Protection Agency

Commissioner Governor  
Deputy Commissioner Lt. Governor  
Director



May 31, 2012

Glenn S. Miller  
Logistics/E&S Director  
Research Organics, Inc.  
4353 East 49<sup>th</sup> Street  
Cleveland, OH 44125

**RE: SIGMA-ALDRICH CO. LLC/RESEARCH ORGANICS, INC., VOLUNTARY  
AUDIT DISCLOSURE (VAD) #12-02, CUYAHOGA COUNTY, OHD046632717  
NOTICE OF VIOLATION (NOV)/RETURN TO COMPLIANCE (RTC)**

Dear Mr. Miller:

On May 22, 2012, Ohio EPA, Division of Materials and Waste Management (DMWM) visited Research Organics, Inc. located at 4353 East 49<sup>th</sup> Street, Cleveland, Ohio. The purpose of the visit was in response to a voluntary audit disclosure (VAD) letter received by Ohio EPA. Jennifer L. Kurko's May 16, 2012, letter introduced me as the investigator to address any potential violations of Ohio's hazardous waste laws or rules as found in Chapter 3734 of the Ohio Revised Code (ORC) and rules promulgated there under in Chapter 3745 of the Ohio Administrative Code (OAC).

During the May 22 visit, I represented the DMWM and you represented Research Organics, Inc.

This letter addresses DMWM's findings, only, during the focused hazardous waste inspection.

The self-disclosure letter received by Ohio EPA, dated April 30, 2012, disclosed the following hazardous waste storage concern:

"The Facility generates hazardous waste alcohols and, prior to shipment off-site for reclamation, some of the waste alcohols were stored in above ground storage tanks that were not certified by a professional engineer....." which may have caused these tanks to be in violation of Ohio EPA's hazardous waste generator standards which are found in Ohio Administrative Code (OAC) 3745-52-34 (A) (1) (b) which references the accumulation of hazardous waste in tanks and includes the tank standards found in OAC 3745-66-90 to -66-101.

SIGMA-ALDRICH CO. LLC/RESEARCH ORGANICS, INC.  
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The following represents Ohio EPA's findings in regard to Research Organics management of hazardous waste in tanks during the visit on May 22, 2012.

During the time that Research Organics, Inc. was accumulating hazardous waste in tanks, other than Tank #4, Research Organics, Inc. was in violation of OAC 3745-52-34 (A) (1) (b) and OAC 3745-66-90 to -66-101. Research Organics, Inc. has since returned to compliance for these violations.

Research Organics is no longer accumulating hazardous waste in above ground tanks that do not meet the standards as referenced above. Currently, the only tank receiving hazardous waste is Tank #4, the designated hazardous waste tank. The waste accumulating in Tank #4 is described on the hazardous waste manifest as "Waste Flammable Liquid, N.O.S. (Methanol, Isopropyl Alcohol)". The waste is shipped routinely several times a week by tanker truck to an out-of-state reclamation facility where, following reclamation, the material is re-used. During the visit Ohio EPA received a copy of a recent hazardous waste manifest shipment of the waste flammable liquid to the offsite facility.

Enclosed, please find Ohio EPA's hazardous waste tank standards checklist and a revised site verification form.

During this visit no violations of Ohio's hazardous waste laws or rules were found.

Thank you for your cooperation in this matter. Should you have any questions regarding this letter, please call me at (330) 963-1266.

Sincerely,



Kris L. Coder  
Environmental Specialist II  
Division of Materials and Waste Management

KLC:ddw

Enclosure

ec: Natalie Oryshkewych, NEDO, DMWM  
Jennifer Kurko, Assistant Chief, NEDO  
Nyall McKenna, NEDO, DMWM  
Jeff Mayhugh, CO, DMWM  
Marlene Kinney, NEDO, DMWM

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

<b>Site EPA ID No.</b>	EPA ID Number: <b>OHD046632717</b>							
<b>Site Name</b>	Name: <b>Research Organics, Inc.</b>					Website: (Optional)		
<b>Site Location Information</b>	Street Address: <b>4353 East 49<sup>th</sup> Street</b>							
	City, Town, or Village: <b>Cleveland</b>				State: <b>OH</b>			
<b>Site Land Type</b> (check only one)	County Name: <b>Cuyahoga</b>		Zip Code: <b>44125</b>					
<b>NAICS code(s)</b> <a href="http://www.census.gov/epcd/www/naics.html">www.census.gov/epcd/www/naics.html</a>	Private <input checked="" type="checkbox"/>	County <input type="checkbox"/>	District <input type="checkbox"/>	Federal <input type="checkbox"/>	Indian <input type="checkbox"/>	Municipal <input type="checkbox"/>	State <input type="checkbox"/>	Other <input type="checkbox"/>

<b>Facility Representative</b>	First Name: <b>Glen</b>		MI:	Last Name: <b>Miller</b>				
Additional names can be recorded in number 12	Title: <b>Logistics/E&amp;S Director</b>							
	Phone Number: <b>216-883-8025</b>				Phone Number Extension: <b>168</b>			
Only provide address information if it is different than the site address	E-Mail Address: <b>gmiller@resorg.com</b>							
	Fax Number: <b>216-341-4420</b>				Fax Number Extension:			
	Street or P.O. Box: <b>4353 East 49<sup>th</sup> Street</b>							
	City, Town or Village: <b>Cleveland</b>				State: <b>OH</b>			
	Zip Code: <b>44125</b>							

<b>Legal Owner And Operator of the Site.</b> List Additional Owners and/or Operators in the Comment Section or on another copy of this form page	Name of Site's Legal Owner: <b>Sigma-Aldrich Co. LLC</b>				Date Became Owner (mm/dd/yyyy):				
	Owner Type:	Private <input checked="" type="checkbox"/>	County <input type="checkbox"/>	District <input type="checkbox"/>	Federal <input type="checkbox"/>	Indian <input type="checkbox"/>	Municipal <input type="checkbox"/>	State <input type="checkbox"/>	Other <input type="checkbox"/>
	Street or P.O. Box:								
	City, Town or Village:				Owner Phone #:				
	State:				Country:		Zip Code:		
	Name of Site's Operator: <b>Research Organics, Inc.</b>				Date Became Operator (mm/dd/yyyy):				
	Operator Type:	Private <input checked="" type="checkbox"/>	County <input type="checkbox"/>	District <input type="checkbox"/>	Federal <input type="checkbox"/>	Indian <input type="checkbox"/>	Municipal <input type="checkbox"/>	State <input type="checkbox"/>	Other <input type="checkbox"/>
	Street or P.O. Box: <b>4353 East 49<sup>th</sup> Street</b>								
	City, Town or Village: <b>Cleveland</b>				Operator Phone #: <b>800-321-0570</b>				
	State: <b>OH</b>				Country: <b>USA</b>		Zip Code: <b>44125</b>		

<b>VIOLATIONS CITED?</b>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
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<b>TYPE OF HANDLER - MARK "X" AS APPROPRIATE</b>	
<input type="checkbox"/> Not a HW Generator	<input type="checkbox"/> UNKNOWN: Cited for violation of 3745-52-11
<input type="checkbox"/> Short-Term/Temporary Generator (generates from a short-term or one-time event and not from on-going processes). Check the box for the applicable generator status and provide a comment.	<input checked="" type="checkbox"/> Large Quantity Generator (LQG)
	<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 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<br>(accumulates 5,000 kg. or more) |                                                                   |

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

- Batteries
- Pesticides
- Mercury containing equipment
- Lamps

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

- Used Oil Generator
- Used Oil Transporter
- Used Oil Transfer Facility
- Used Oil Processor
- Used Oil Re-refiner
- Off-Specification Used Oil Burner
- Used Oil Fuel Marketer who directs shipment of Off-Spec Used Oil
- 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.

- College or University
- Teaching hospital that is owned by or has a formal written affiliation agreement with a college or university
- 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.

**D001                      F003                      U154**

**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 type="checkbox"/> Yes            | <input type="checkbox"/> No            |                                      |

Name of Inspector(s)  
**Kris Coder**

Name of Inspector(s)  
**na**

Date of Inspection/Time  
(mm/dd/yyyy) (hh:mm)  
**05/22 2012**

**Comments:**

**This inspection was a follow-up "focused inspection" to a voluntary audit disclosure #12-02 submitted to Ohio EPA by the new owner.**

**TANK SYSTEM REQUIREMENTS (OAC 3745-66-91 TO 3745-66-100)**

This tank inspection references the focused inspection conducted on May 22, 2012, of Research Organics, Inc. where Ohio EPA, DMWM conducted a follow-up to voluntary audit disclosure #12-02 submitted to Ohio EPA. This checklist applies to Tank #4, the existing hazardous waste tank, only. Kris Coder, Ohio EPA, DMWM conducted the focused inspection.

**NOTE:**            *New Tank System - Installation commencing after July 14, 1986.*  
                      *Existing Tank System - Installation or operation commencing on/before July 14, 1986.*

1.            For an existing or new tank system(s) has secondary            Yes  No  N/A  RMK#   
                  containment been provided? [3745-66-93(A)(1) to (A)(5)]

- NOTES:**
- A.            *Secondary containment must be provided for all new tank systems or components, prior to their being put into service. [3745-66-93(A)(1)]*
  
  - B.            *For an existing tank system(s) of **known and documentable age** secondary containment is required to be provided within two years after January 12, 1987, or when the tank system has reached 15 years of age, whichever came later. [3745-66-93(A)(3)]*
  
  - C.            *Secondary containment is required for all existing tanks for which the **age cannot be documented**. The tanks were required to have secondary containment within eight years of January 12, 1987 or when the facility turned 15 years of age, whichever came later. [3745-66-93(A)4]*
  
  - D.            *Tank systems that store/treat materials that become hazardous waste after January 12, 1987, must have secondary containment required within the time intervals in OAC 3745-66-93(A)(1) to (A)(4). The date the material became a hazardous waste must be used in place of January 12, 1987. [3745-66-93(A)(5)]*
  
  - E.            *If the tank system has no secondary containment, or a variance from secondary containment requirements has been granted, skip to the middle of page 6 of this Tank Systems Checklist: (Tank Systems without secondary containment).*

2. Is the secondary containment one of the following:

- a. An **External Liner** [3745-66-93(E)(1)(a) - (1)(f)] If so, Yes  No  N/A  RMK#
- i. Is liner designed or operated to contain 100% of the capacity of the largest tank? Yes  No  N/A  RMK#
- ii. Is liner designed and operated to prevent run-on and infiltration or the collection system has excess capacity to contain run-on and infiltration from a 25-year, 24-hour storm? Yes  No  N/A  RMK#
- iii. Is liner free of cracks and gaps? Yes  No  N/A  RMK#
- iv. Does liner completely surround the tank and cover all earth likely to be contacted by waste during a release? Yes  No  N/A  RMK#

- v. Are chemically resistant water stops in place at all joints? (*concrete liners only*) Yes  No  N/A  RMK#\_
- vi. Is there a compatible interior coating or lining to prevent migration of waste into the concrete? (*concrete liners only*) Yes  No  N/A  RMK#\_
- b. **Vault System?** [3745-66-93(E)(2)(a) - (2)(f)] If so, Yes  No  N/A  RMK#\_
- i. Is vault system designed to contain 100% of the capacity in the largest tank? Yes  No  N/A  RMK#\_
- ii. Is liner designed and operated to prevent run-on and infiltration or the collection system has excess capacity to contain run-on and infiltration from a 25-year, 24-hour storm? Yes  No  N/A  RMK#\_
- iii. Are chemically resistant water stops in place at all joints? Yes  No  N/A  RMK#\_
- iv. Is there a compatible interior coating to prevent migration into the concrete? Yes  No  N/A  RMK#\_
- v. For **ignitable or reactive waste**: Is the vault system provided with means to prevent against the formation or ignition of vapors? Yes  No  N/A  RMK#\_
- vi. Is vault system provided with an exterior moisture barrier? Yes  No  N/A  RMK#\_
- c. **Double-Walled Tank?** [3745-66-93(E)(3)(a) - (3)(c)] If so, Yes  No  N/A  RMK#\_
- i. Is double-walled tank designed as an integral structure to contain any release from the inner tank? Yes  No  N/A  RMK#\_
- ii. **If metal**, are the primary tank interior and outer shell exterior surfaces protected from corrosion? Yes  No  N/A  RMK#\_
- 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  No  N/A  RMK#\_
3. Is the secondary containment system for the tank(s) an equivalent device as described in 3745-66-93(D)(4) which has been approved by the director? [3745-66-93(D)(E)] Yes  No  N/A  RMK#\_

**SECONDARY CONTAINMENT DESIGN/OPERATION/INSTALLATION (OAC 3745-66-93(B)(C))**

4. Has each secondary containment system been designed, installed and operated to prevent any migration of wastes or liquid to the soil, ground water, or surface water and is it capable of detecting and collecting releases and accumulated liquids? [3745-66-93(B)] Yes  No  N/A  RMK#
5. 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? Yes  No  N/A  RMK#
- b. Placed on a foundation or base capable of providing support? Yes  No  N/A  RMK#
- 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? Yes  No  N/A  RMK#
- d. Sloped or designed to drain and remove liquid resulting from leaks, spills or precipitation? Yes  No  N/A  RMK#
- e. Any liquid which accumulates in the containment unit resulting from spills, leaks or precipitation removed within 24 hours or in a timely manner? Yes  No  N/A  RMK#

**ANCILLARY EQUIPMENT REQUIREMENTS (OAC 3745-66-93(F))**

6. Is ancillary equipment provided with secondary containment (such as double-walled piping, jacketing or a trench)? **If not**, is the ancillary equipment:
- a. Inspected daily? **AND**; Yes  No  N/A  RMK#
- b. Is ancillary equipment one of the following:
- i. Above ground piping (exclusive of flanges, joints, valves and connections)? Yes  No  N/A  RMK#
- ii. Welded flanges, welded joints and/or welded connections? Yes  No  N/A  RMK#
- iii. Sealless or magnetic coupling pumps and/or sealless valves? Yes  No  N/A  RMK#

- iv. 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)? N/A x

**###REMARKS**

**NEW TANK SYSTEM REQUIREMENTS (OAC 3745-66-92)**

1. 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  No  N/A \_\_\_\_\_RMK#\_
2. Does the written assessment include the following: [OAC 3745-66-92(A)]
- a. Certification by an independent, registered, professional engineer? Yes  No  N/A \_\_\_\_\_RMK#\_
- b. Consideration of the design standards of the system? Yes  No  N/A \_\_\_\_\_RMK#\_
- c. Consideration of the hazardous characteristics of the waste(s)? Yes  No  N/A \_\_\_\_\_RMK#\_
- d. An evaluation by a corrosion expert (*if the external system/components are metal*)? Yes \_\_\_\_\_ No  N/A  RMK#\_
- e. A determination of design and operational measures that will be needed to protect the tank system from potential damage (*for underground tank components*)? Yes \_\_\_\_\_ No  N/A  RMK#\_
- f. Design considerations to ensure that the tank foundations will maintain the load of a full tank? Yes  No  N/A \_\_\_\_\_RMK#\_
- g. Design considerations for anchoring the unit to prevent floatation (*for tanks situated in a seismic fault zone or saturated zone*)? Yes \_\_\_\_\_ No  N/A  RMK#\_
- h. Design considerations to ensure that the tank system will withstand the effects of frost heave (*for underground tank systems*)? Yes \_\_\_\_\_ No  N/A  RMK#\_
3. Are there written statements by those person 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  No  N/A \_\_\_\_\_RMK#\_

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  No  N/A  RMK#\_
- b. Statement that deficiencies were corrected before the tank system was covered or put into use? [3745-66-92(B)] Yes  No  N/A  RMK#\_
- c. Proper backfilling? [3745-66-92(C)] Yes  No  N/A  RMK#\_
- d. Tightness test; if the tank was found not to be tight, does the statement indicate that proper repairs were made? [3745-66-92(D)] Yes  No  N/A  RMK#\_
- e. Proper support and protection of ancillary equipment? [3745-66-92(E)] Yes  No  N/A  RMK#\_
- f. Supervision of the installation of field fabricated corrosion protection? [3745-66-92(F)] Yes  No  N/A  RMK#\_

#### TANK SYSTEMS WITHOUT SECONDARY CONTAINMENT (OAC 3745-66-91)

1. For existing tank system, without secondary containment: Is there a written assessment on file which includes the following considerations: [3745-66-91(A)(B)] Yes  No  N/A  RMK#\_
- a. Design standards? [3745-66-91(B)(1)] Yes  No  N/A  RMK#\_
- b. The characteristics of hazardous waste(s) that have been or will be handled? [3745-66-91(B)(2)] Yes  No  N/A  RMK#\_
- c. Corrosion protection measures? [3745-66-91(B)(3)] Yes  No  N/A  RMK#\_
- d. The age of the tank system has been estimated or documented? [3745-66-91(B)(4)] Yes  No  N/A  RMK#\_
- e. A leak test has been conducted? (*For non-enterable underground tanks*) [3745-66-91(B)(5)(a)] Yes  No  N/A  RMK#\_
- f. A leak test or an internal inspection by qualified P.E. has been conducted? (*For other than non-enterable underground tanks and for ancillary equipment*) [3745-66-91(B)(5)(b)] Yes  No  N/A  RMK#\_

g. Is assessment certified by an independent, registered P.E.? [3745-66-91(A)] N/A

Have the tests specified in 1e and 1f been conducted annually on the tanks and ancillary equipment until secondary containment is provided? [3745-66-93(l)] **if so,** Yes \_\_\_ No  N/A  RMK#\_

a. Have tests been certified by an independent, registered P.E.? Yes \_\_\_ No  N/A  RMK#\_

3. For tanks without secondary containment used to store or treat wastes which become hazardous wastes after July 14, 1986, has the assessment been completed within 12 months of the date the waste became a hazardous waste? [3745-66-91(C)] Yes \_\_\_ No  N/A  RMK#\_

### TANK SYSTEM - GENERAL OPERATING REQUIREMENTS (OAC 3745-66-94)

1. 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 \_\_\_ No  N/A  RMK#\_

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  No  N/A \_\_\_ RMK#\_

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 \_\_\_ No  N/A  RMK#\_

### TANK SYSTEM - INSPECTION REQUIREMENTS (OAC 3745-66-95)

1. Has the o/o documented the inspections required in 3745-66-95, in the operating record, including inspection of the following:

a. Spill control equipment (daily)? [3745-66-95(A)(1)] Yes  No  N/A \_\_\_ RMK#\_

b. Above ground portion of tank (daily)? [3745-66-95(A)(2)] Yes  No  N/A \_\_\_ RMK#\_

- c. Data from leak detection equipment (daily)? [3745-66-95(A)(3)] N/A
- d. Construction materials and area immediately surrounding the tanks for signs of erosion or release of hazardous waste (daily)? [3745-66-95(A)(4)] Yes  No  N/A  RMK#\_
- e. Where applicable, the cathodic protection system to confirm proper operation within six months of initial installation and annually thereafter? [3745-66-95(B)(1)] Yes  No  N/A  RMK#\_
- f. Where applicable, all sources of impressed current at least bi-monthly? [3745-66-95(B)(2)] Yes  No  N/A  RMK#\_

**TANK SYSTEMS STORING IGNITABLE OR REACTIVE WASTES (OAC 3745-66-98 AND 3745-66-99)**

1. 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)]
- 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 3745-65-17(B)? [3745-66-98(A)(1)]; **OR** Yes  No  N/A  RMK#\_
- b. Is the waste stored or treated to protect it from materials or conditions which may cause ignition or reaction? [3745-66-98(A)(2)]; **OR** Yes  No  N/A  RMK#\_
- c. The tank is used solely for emergencies? [3745-66-98(A)(3)] Yes  No  N/A  RMK#\_
2. 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 (1996)? [3745-66-98(B)] Yes  No  N/A  RMK#\_
3. 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] Yes  No  N/A  RMK#\_
- a. **If so**, have the requirements of 3745-65-17(B) been met? Yes  No  N/A  RMK#\_

**TANK SYSTEM - WASTE ANALYSIS REQUIREMENTS (OAC 3745-66-100)**

1. 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 \_\_\_ No \_\_\_ N/A  x  RMK#\_
- a. Conducted waste analysis and trial treatment or storage tests? [3745-66-100(A)]; OR Yes \_\_\_ No \_\_\_ N/A  x  RMK#\_
- 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 \_\_\_ No \_\_\_ N/A  x  RMK#\_

**TANK SYSTEMS FOUND TO BE LEAKING OR UNFIT FOR USE (OAC 3745-66-96)**

1. Has there been a leak or spill from any tank system or has any tank system been found unfit for use? *If so*, did the o/o: Yes \_\_\_ No \_\_\_ N/A  x  RMK#\_
- a. Immediately cease flow of material into tank and investigate the cause of the release? [3745-66-96(A)] Yes \_\_\_ No  N/A  x  RMK#\_
- 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 \_\_\_ No  N/A  x  RMK#\_
- 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 \_\_\_ No  N/A  x  RMK#\_
- d. Immediately conduct a visual inspection of the release? [3745-66-96(C)] Yes \_\_\_ No  N/A  x  RMK#\_
- e. Prevent further migration of the leak or spill to soils or surface waters? [3745-66-96(C)(1)] Yes \_\_\_ No  N/A  x  RMK#\_
- f. Properly dispose of any visibly contaminated soil or surface water? [3745-66-96(C)(2)] Yes \_\_\_ No  N/A  x  RMK#\_
- g. Report the release to the director within 24 hours unless it was less than one pound and was cleaned up immediately? [3745-66-96(D)(1)(2)] Yes \_\_\_ No  N/A  x  RMK#\_

- h. Submit a written report of the incident to the director within 30 days of the release? [3745-66-96(D)(3)] N/A  x
- i. Remediate the spill and repair the unit prior to returning it to service? [3745-66-96(E)] Yes \_\_\_ No  N/A  x RMK#\_
- 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 \_\_\_ No  N/A  x RMK#\_

**NOTE:** *The requirements noted 1.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.*

2. In the event that the repairs to the tank system were major (replacement of liner, repair of ruptured primary or secondary containment structure), did the o/o obtain a certification from an independent, registered P.E. attesting that the repaired unit is capable of handling hazardous waste? [3745-66-96(F)] Yes \_\_\_ No  N/A  x RMK#\_
- a. Was a copy of the certification submitted to the director within seven days after returning the system to use? [3745-66-96(F)] Yes \_\_\_ No  N/A  x RMK#\_
3. If the o/o was unable to repair and return the unit to service as described in 1.a through 1.e, was the tank system closed in accordance with 3745-66-97? [3745-66-96(E)(1)] Yes \_\_\_ No  N/A  x RMK#\_
4. Does the o/o have a tank system **with a variance from secondary containment** from which a release has occurred but has not migrated beyond the zone of engineering control? **If so,** Yes \_\_\_ No \_\_\_ N/A  x RMK#\_
- a. Has the o/o complied with 3745-66-96(A) through (F) and decontaminated soils? [3745-66-93(G)(3)] Yes \_\_\_ No  N/A  x RMK#\_
- b. If soils cannot be decontaminated/removed, has the o/o complied with 3745-66-97(B)? [3745-66-93(G)(3)] Yes \_\_\_ No  N/A  x RMK#\_
5. Does the o/o have a tank system **with a variance from secondary containment** from which a release occurred and has migrated from the zone of engineering control? **If so,** Yes \_\_\_ No \_\_\_ N/A  x RMK#\_

a. Has the o/o complied with 3745-66-96(A) through (D), prevented migration, and decontaminated soil?  
[3745-66-93(G)(4)]

N/A

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  No  N/A  RMK#\_

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### REMARKS