

**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 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 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 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 type="checkbox"/>

**TANK SYSTEM – INSPECTION REQUIREMENTS**

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 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 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 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 type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>

*NOTE: "Each operating day" is each day that the tank system is being used to manage (store or treat) hazardous waste.*

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 type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
a.	Inspections of spill control equipment weekly?	Yes <input 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 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 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 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 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 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 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 type="checkbox"/>
----	---	------------------------------	-----------------------------	------------------------------

**TANK SYSTEMS STORING IGNITABLE OR REACTIVE WASTES**

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 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 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 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 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 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 type="checkbox"/>
a.	<b>If so</b> , 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 type="checkbox"/>

**TANK SYSTEM – WASTE ANALYSIS REQUIREMENTS**

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 type="checkbox"/>
a.	Conducted waste analysis and trial treatment or storage tests? [3745-66-100(A)]; <b>OR</b>	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input 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 type="checkbox"/>

**TANK SYSTEMS REQUIREMENTS**

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 type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
-----	--	---

*NOTE: You should review the file to see if the written assessment has been previously reviewed and what the results were.*

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 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 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 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 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)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input 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 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)? [3745-66-92(A)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>

	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 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 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 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 type="checkbox"/>
	c.	Proper backfilling? [3745-66-92(C)]	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input 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 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 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"/>
<b>SECONDARY CONTAINMENT</b>					
16.	Has secondary containment been provided? [3745-66-93(A)]		Yes <input 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 type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
	a.	An <b>External Liner</b> ? [3745-66-93(E)(1)] If so,	Yes <input type="checkbox"/>	No <input 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 type="checkbox"/>
	ii.	Is liner designed and operated to prevent run-on and infiltration <u>or</u> 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 type="checkbox"/>
	iii.	Is liner free of cracks and gaps?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input 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 type="checkbox"/>
	v.	Are chemically resistant water stops in place at all points? ( <i>concrete liners only</i> )	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
	vi.	Is there a compatible interior coating or lining to prevent migration of waste into the concrete? ( <i>concrete liners only</i> )	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
	b.	<b>Vault System</b> ? [3745-66-93(E)(2)] If so,	Yes <input 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?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
	ii.	Is liner designed and operated to prevent run-on and infiltration <u>or</u> 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 type="checkbox"/>
	iii.	Are chemically resistant water stops in place at all points?	Yes <input 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 type="checkbox"/>
	v.	For <b>ignitable or reactive waste</b> : 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 type="checkbox"/>
	vi.	Is vault system provided with an exterior moisture barrier?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
	c.	<b>Double-Walled Tank?</b> [3745-66-93(E)(3)] If so,	Yes <input type="checkbox"/> No <input 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 type="checkbox"/>
	ii.	<b>If metal</b> , are the primary tank interior and outer shell exterior surfaces protected from corrosion?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input 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 type="checkbox"/>
	d.	<b>An Equivalent Device?</b> 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 type="checkbox"/>
<b>SECONDARY CONTAINMENT DESIGN/OPERATION/INSTALLATION</b>			
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 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 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 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 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 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 type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
<b>ANCILLARY EQUIPMENT REQUIREMENTS</b>			
20.	Is ancillary equipment provided with secondary containment (such as double-walled piping, jacketing or a trench)?		Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
	<b>If not</b> , 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 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 type="checkbox"/>
	c.	Sealless or magnetic coupling pumps and/or sealless valves?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input 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 type="checkbox"/>
<b>TANK SYSTEMS FOUND TO BE LEAKING OR UNFIT FOR USE</b>			
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 type="checkbox"/>

	been found unfit for use? <b>If so</b> , 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 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 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 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 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 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 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 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 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 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 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 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 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 type="checkbox"/>
25.	Does the o/o have a tank system <b>with a variance from secondary containment</b> from which a release has occurred but <u>has not</u> migrated beyond the zone of engineering control? <b>If so</b> ,		Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input 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 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 type="checkbox"/>
26.	Does the o/o have a tank system <b>with a variance from secondary containment</b> from which a release occurred and <u>has</u> migrated from the zone of engineering control? <b>If so</b> ,		Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input 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 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 type="checkbox"/>