

### CONTAINMENT BUILDING CHECKLIST

CESQG: < 100 Kg. (approximately 25-30 gallons) of waste in a calendar month.

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.*

#### COMPLETE AND ATTACH A PROCESS DESCRIPTION SUMMARY

#### DESIGN AND OPERATING STANDARDS

1.	Are the containment buildings completely enclosed with a floor, walls, and a roof to prevent exposure to the elements (e.g., precipitation, wind, run-on), and to ensure containment of managed wastes? [3745-205-101(A)(1)]	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
2.	Are the floor and containment walls of the unit, including the secondary containment system (if required), designed and constructed of materials of sufficient strength and thickness to: [3745-205-101(A)(2)]			
a.	Support themselves, the waste contents, and any personnel and heavy equipment that operate within the unit?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
b.	Prevent failure due to pressure gradients, settlement, compression, or uplift?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
c.	Prevent failure due to physical contact with the wastes to which they are exposed?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
d.	Prevent failure due to climatic conditions?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
e.	Prevent failure due to stresses of daily operation, including the movement of heavy equipment within the unit and contact of such equipment with containment walls?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
3.	Is the unit designed so that it has sufficient structural strength to prevent collapse or other failure? [3745-205-101(A)(2)]	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
NOTE: <i>DHWM will consider standards established by professional organizations generally recognized by the industry such as the American Concrete Institute (ACI) and the American Society of Testing Materials (ASTM) in judging the structural integrity requirements of containment buildings. An exemption to the structural strength may be made for lightweight doors and windows if appropriate to the nature of waste management operation to take place in the unit. The lightweight doors and windows must meet the criteria in OAC rule 3745-205-101(A)(2)(a)&amp;(b).</i>				
4.	Are incompatible hazardous wastes or treatment reagents placed in the unit or its secondary containment system that could cause the unit or secondary containment system to leak, corrode, or otherwise fail? [3745-205-101(A)(3)]	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
5.	Does the containment building have a primary barrier that is: [3745-205-101(A)(4)]			
a.	Designed to withstand the movement of personnel, waste, and handling equipment in the unit during the operating life of the unit?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
b.	Appropriate for the physical and chemical characteristics of the waste to be managed?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
6.	Is the containment building used to manage hazardous waste containing free liquids or treated with free liquids? If so, has the owner/operator included: [3745-205-101(B)]	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
a.	A primary barrier designed and constructed of materials to prevent the migration of hazardous constituents into the barrier (i.e., geomembrane covered by a concrete wear surface)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
b.	A liquid collection and removal system to minimize the accumulation of liquid on the primary barrier of the containment building?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
i.	Is the primary barrier sloped to drain liquids to the associated collection system?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
ii.	Are liquids and waste collected and removed to minimize hydraulic head on the containment system at the earliest practicable time?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>

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	c.	A secondary containment system including a secondary barrier designed and constructed to prevent migration of hazardous constituents into the barrier, and a leak detection system that is capable of detecting failure of the primary barrier and collecting accumulated hazardous wastes and liquids at the earliest practicable time?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
	i.	Is the leak detection component constructed with a bottom slope of 1% or more?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
	ii.	Is the leak detection component constructed of a granular drainage material with a hydraulic conductivity of $1 \times 10^{-2}$ cm/sec or more and a thickness of twelve inches (30.5 cm) or more, or constructed of synthetic or geonet drainage materials with a transmissivity of $3 \times 10^{-5}$ m <sup>2</sup> /sec or more?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
	d.	If treatment is to be conducted in the buildings, is an area in which such treatment will be conducted designed to prevent the release of liquids, wet materials, or liquid aerosols to other portions of the building?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
	e.	Is the secondary containment system constructed of materials that are chemically resistant to the waste and liquids managed in the containment building and of sufficient strength and thickness to prevent collapse under the pressure exerted by overlaying materials and by any equipment used in the containment building?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>

*NOTE: Under certain conditions, containment buildings may serve as secondary containment systems for tanks placed within the building. A containment building may serve as an external liner system for a tank, provided it meets the requirements of OAC rule 3745-55-93(E)(1). In addition, the containment building shall meet the requirements of OAC rule 3745-55-93(B), (C)(1) and (C)(2) to be considered an acceptable secondary containment system for a tank.*

7.	Are there existing units other than 90-day generator units? If so: [3745-205-101(B)(4)]		Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
	a.	Did the owner/operator provide written notice to the director of their request? If so:	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
	i.	Did the notification describe the unit and its operating practices with specific reference to the performance of existing containment systems, and specific plans for retrofitting the unit with secondary containment?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
	b.	Did the owner/operator respond within 30 days to any comments from the director on these plans?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
	c.	Did the owner/operator fulfill the terms of the revised plan approved by the director?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>

*NOTE: An existing containment building is one constructed prior to December 7, 2000.*

8.	Does the owner/operator of all containment buildings use controls and practices to ensure containment of hazardous waste within the unit? And at a minimum do the following: [3745-205-101(C)(1)]		Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
	a.	Maintain the primary barrier to be free of significant cracks, gaps, corrosion, or other deterioration that could cause hazardous waste to be released from the primary barrier?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
	b.	Maintain the level of stored/treated hazardous waste within the containment walls of unit so that the height of any containment is not exceeded?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
	c.	Take measures to prevent the tracking of hazardous waste out of the unit by personnel or by equipment used in handling the waste?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
	d.	Designate an area to decontaminate equipment, and collect and properly manage any rinseate?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
	e.	Take measures to control fugitive dust emissions such that any openings (doors, windows, vents, cracks, etc.) exhibit no visible emissions?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>

*NOTE: Use Method 22 in Appendix A of 40 CFR 60 to determine visible emissions. Visible emissions training is provided by smoke schools.*

9.	Has the owner/operator obtained and kept on-site a certification by a qualified professional engineer that the containment building design meets the requirements of OAC rule 3745-205-101(A) to (C)(4)? [3745-205-101(C)(2)]		Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
10.	Did the owner/operator promptly repair any condition that could lead to or cause a release of hazardous waste in accordance with the following procedures: [3745-205-101(C)(3)]							
	a.	Upon detection of a condition that has led to a release of hazardous waste (e.g., upon detection of leakage from the primary barrier) did the owner/operator:						
	i.	Enter a record of the discovery in the facility's operating record?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	ii.	Immediately remove from service the containment building affected by the condition?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	iii.	Determine that steps shall be taken to repair the containment building, remove any leakage from the secondary collection system, and establish a schedule for accomplishing the cleanup and repairs?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	iv.	Within seven days after the discovery of the condition, notify the director of the condition, and within 14 working days, provide a written plan to the director with a description of the steps taken to repair the containment building and with the schedule for accomplishing the work?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
11.	Upon completing all repairs and cleanup, did the owner/operator notify the director in writing and provide verification, signed by a qualified professional engineer, that the repairs and cleanup have been completed according to the written plan submitted in accordance with OAC rule 3745-205-101(C)(3)(a)(iv)? [3745-2050101(C)(3)(c)]		Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
12.	Did the owner/operator, at least once every seven days, inspect and record in the facility's operating record, data gathered from: [3745-205-101(C)(4)]							
	a.	Monitoring equipment?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	b.	Leak detection equipment?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	c.	The containment building?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	d.	The area immediately surrounding the containment building?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
13.	For containment building that contains both areas with secondary containment and without secondary containment, did the owner/operator: [3745-205-101(D)]							
	a.	Design and operate each area in accordance with the requirements of OAC rule 3745-205-101(A) to (C)(4)?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	b.	Take measures to prevent the releases of liquids or wet materials into areas without secondary containment?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	c.	Maintain in the facility's operating record a written description of the operating procedures used to maintain the integrity of area without secondary containment?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
14.	If a permitted containment building does not have a secondary containment system, has the director waived requirements for secondary containment for the unit where the owner/operator demonstrated that the only free liquids in the unit are limited amounts of dust suppression liquids required to meet occupational health and safety requirements, and where containment of managed wastes and liquids can be assured without a secondary containment system? [3745-205-101(E)]		Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>

<b>CLOSURE AND POST-CLOSURE</b>		
15.	Did the owner/operator close the containment building? If so: [3745-205-102(A)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
	a. Did the owner/operator remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste or leachate?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
	b. Manage all waste generated by removal or containment as hazardous waste unless paragraph (D) of OAC rule 3745-51-03 applies?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
16.	Does the closure plan, closure activities, cost estimate for closure, and financial responsibility for containment buildings meet all of the requirements specified in OAC rules 3745-55-10 to 3745-55-20 and 3745-55-40 to 3745-55-51? [3745-205-102(A)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
17.	Did the owner/operator find that not all contaminated subsoils can be practically removed or decontaminated after making all reasonable efforts required by OAC 3745-205-102(A)? If so: [3745-205-102(B)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
	a. Did the owner/operator close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills (see OAC rule 3745-57-10)?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
<p><i>NOTE: A hazardous waste generator is exempt from all interim standards for closure and post closure and financial requirements, except for the closure performance standards of OAC rule 3745-66-11 and the disposal or decontamination of equipment structures and soil requirements of OAC rule 3745-66-14.</i></p>		
<b>RECORD KEEPING</b>		
18.	Is the containment building operated by a generator without a hazardous waste operating permit? If so:	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
	a. Are written procedures to ensure that all wastes are removed from the unit and associated collection system at least once every 90 days maintained at the facility? [3745-52-34(A)(1)(d)(i)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
	b. Is documentation of the unit being emptied at least once every 90 days maintained at the facility? [3745-52-34(A)(1)(d)(ii)]	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>