Texas Commission on Environmental Quality

CHECKLIST WORKSHEET

MSW CME CHECKLIST A INTRODUCTION

Reg Ent Name :_____ **Date :**_____

Add ID_____ **Investigator Name**_____

Item No	Description	Answer	Citations	Notes
	SECTION A - INTRODUCTION			
1	Provide Facility Description: [description of facility location, surrounding land use, facility age, operations/processes, generated wastes, brief summary of permit]: (may be addressed as Attachment or See Report).			
2	Chronology of Groundwater Monitoring Activities since the Previous CME (or inception of groundwater activities if no CME conducted): (may be addressed as Attachment or See Report).			
3	MSW Landfill(s) Requiring Groundwater Monitoring:			
3A	Provide the location of the monitoring wells on a site diagram(s): (Attachment #)			
3B	Unit Information - Provide Unit Name, Facility No., Size, Year in Service, Status, construction: (may be addressed as Attachment or See Report)			
	3B SECTION B - TECHNICAL REVIEW			
4	Regional Geology - Provide brief description of regional geology including stratigraphy, depositional environments, structure, etc.: (may be addressed as Attachment or See Report)			
4A	Formation(s) - Provide geologic description of formations that include regional aquifers. (One of several possible sources of this information is the Geologic Atlas of Texas, Bureau of Economic Geology.): (may be addressed as Attachment or See Report)			
4B	Regional Dip and Gradient and Reference:			
5	Site Geology - Provide brief description of geology of site, including surface geology, topography, faulting, subsidence, etc.: (may be addressed as Attachment or See Report)			
5A	Site Diagram - Attachment # :			
5B	Depth of investigation and Geologic Unit: (may be addressed as Attachment or See Report)			
5C	Cross-sections provided as Attachment # :			
6	Regional Hydrology - Provide brief discussion of regional aquifers/aquitards: (may be addressed as Attachment or See Report)			
6A	Regional groundwater flow direction and reference (See Report)			
6B	Is the site located on the recharge area of a major aquifer? If yes, identify major aquifer: (See Report)			
6C	Is the site located on the recharge area of a minor aquifer? If yes, identify minor aquifer: (See Report)			

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7	Provide brief discussion of site hydrology, include nearby surface water bodies and other recharge/discharge features or wells, summarize the zones that are confined, semi-confined, water table, etc.: (may be addressed as Attachment or See Report)			
7A	Provide description of all saturated zone(s) and aquitard(s) - include Unit name, Depth, Interval encountered (ft-ft), Saturated thickness, Confined/unconfined, Potentiometric rise (if confined), Horizontal hydraulic conductivity (k), Source of k value, Vertical hydraulic conductivity (k), Source of k value: (may be addressed as Attachment or See Report)			
7B	Is the first water-bearing zone identified in Section 7a. above in communication with a deeper zone(s)? If yes, describe communication between affected zones: (See Report)			
7C	Is the aquitard(s) continuous beneath the site?			
7D	Geologic unit(s) monitored during interim status: (Attachment #)			
7E	Geologic unit designated by the facility as the uppermost aquifer:			
	SECTION C: SITE GROUNDWATER MOVEMENT			
8	Potentiometric surface map(s) provided as Attachment # :			
9	Calculations of minimum and maximum observed gradients (I) in units of feet/foot:			
9A	Calculation of Flow Rate (v) in feet/day. (k=hydraulic conductivity; ne=effective porosity; i=gradient) v = ki/ne v = _____ Reference:			
10	Monitor Well Construction and Vertical Placement.			
10A	Provide Table of well construction details? (Attachment #)			
10B	Vertical placement of wells satisfactory? If no, explain: (may be addressed as Attachment or See Report)			
10C	Are detailed well installation diagrams, including lithologic logs, available for all monitor wells?			
	SECTION D - APPLICABILITY (30 TAC 330.401)			
11	Was this facility closed in accordance with 30 TAC 330.453, 330.455, or 330.457 prior to the effective date the comprehensive rule revisions in this chapter as adopted in 2006 (2006 Revisions) and owner/operator continues to monitor groundwater using the well location requirements contained in previously issued authorizations, as allowed by 330.1(a)(1)?			
12	Has owner/operator complied with the 2006 Revisions to 30 TAC 330 by applying for a permit modification with public notice to revise any inconsistent permit provisions within two years from the effective date of the 2006 Revisions?		330.401(b)	
13	Is location an arid exempt site? [If Yes, skip to Section E]			
14	Is this facility a Type IV landfill that is not required to install groundwater monitoring Systems? [If Yes, skip to Section E)			

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15	Is this a composting facility that requires a permit? [If Yes, skip to Section E]			
16	Is this an MSW landfill facility unit for which groundwater monitoring requirements have been suspended? [If Yes, skip to Section E]			
17	Has owner/operator submitted a certification signed by a qualified groundwater scientist that the facility is in compliance with the groundwater monitoring requirements specified in 30 TAC 330.403, 330.405, 330.407 and 330.409 before waste can be placed in the unit?		330.401(e)	
17A	Date of certification submittal (VERIFY, copy should exist in operating record):			
18	Has groundwater monitoring been conducted throughout the active life and any required post-closure care period?		330.401(f) 330.463	
19	Has the owner/operator continued to maintain the groundwater monitoring system (if required) for all units in post closure care?		330.463(a)(2) 330.463(b)(1)(C)	
	SECTION E - LOCATION RESTRICTIONS (30 TAC 330.555, 330.557, 330.559, 330.561)			
20	Has owner/operator ensured that new MSWLF units and lateral expansions are not located within 200 feet of a fault that had displacement in Holocene time unless satisfactorily demonstrating to the executive director that an alternative setback distance of less than 200 feet will prevent damage to the structural integrity of the landfill unit and will be protective of human health and the environment?		330.555(b)(12) 330.555(b)(11) 330.555(b)(2) 330.555(b) 330.555(b)(7) 330.555(a) 330.555(b)(9) 330.555(b)(6) 330.555(b)(10) 330.555(b)(8) 330.555(b)(4) 330.555(b)(3) 330.555 330.555(b)(5) 330.555(b)(1)	
21	Has owner/operator ensured that new MSWLF units and lateral expansions are not located in seismic impact zones, unless satisfactorily demonstrating to the executive director that all containment structures, including liners, leachate collection systems, and surface water control systems, are designed to resist the maximum horizontal acceleration in lithified earth material for the site?		330.557	
22	For new MSWLF units, existing landfill units, and lateral expansions located in an unstable area, has owner/operator demonstrated that engineering measures have been incorporated into the landfill unit's design to ensure that the integrity of the structural components of the landfill unit will not be disrupted?		330.559(3) 330.559(2) 330.559 330.559(1)	
23	Has owner/operator ensured that a new landfill cell or an aerial expansion of an existing landfill cell managing Class 1 industrial solid waste is not located in coastal areas described in 30 TAC 335.584(b)(3) and (4) relating to Location Restrictions?		330.561	