

## Texas Commission on Environmental Quality

### CHECKLIST WORKSHEET

MSW GROUNDWATER O&M PART 2

**Regulating Entity Name**

**Date :**

**Additional I D:**

**Investigator Name:**

<b>Item Number</b>	<b>Description</b>	SECTION J: Detection Monitoring Program	
		<b>Answer</b>	<b>Citations</b>
<b>Item Number 71</b>	<b>Description</b>	Does the monitoring program include the constituents listed in 30 TAC 330.419(a), unless the permit lists an alternate list of constituents, or the executive director has deleted constituents or established an alternate list of constituents?	
		<b>Answer</b>	<b>Citations</b>
<b>Item Number 72</b>	<b>Description</b>	330.419(a)	<b>Notes</b>
		Has monitoring been conducted at least semiannually in accordance with 30 TAC 330.407(a) or at an alternative frequency as specified by the executive director in accordance with 30 TAC 330.407(a)(2)?	
		<b>Answer</b>	<b>Citations</b>
<b>Item Number 73</b>	<b>Description</b>	330.407(a)(2)	<b>Notes</b>
		Were a minimum of four statistically independent samples collected and analyzed from each background and each point of compliance well (independence achieved by purging each well at least three volumes, or to dryness, before each of the four samples is collected)?	
		<b>Answer</b>	<b>Citations</b>
<b>Item Number 74</b>	<b>Description</b>	330.407(a)(1)	<b>Notes</b>
		Was at least one sample collected from each background and each point of compliance well during each subsequent sampling event?	
		<b>Answer</b>	<b>Citations</b>
<b>Item Number 75</b>	<b>Description</b>	330.407(a)(1)	<b>Notes</b>
		Has the owner or operator submitted an annual detection monitoring report containing the results of the analyses to the executive director not later than 90 days after the facility's last groundwater monitoring event in a calendar year?	
		<b>Answer</b>	<b>Citations</b>
<b>Item Number 76</b>	<b>Description</b>	330.407(c)	<b>Notes</b>
		Has the owner or operator made a determination whether there has been a statistically significant difference over background for any tested constituent no later than 60 days after each sampling event?	
		<b>Answer</b>	<b>Citations</b>
<b>Item Number 77</b>	<b>Description</b>	330.407(b)	<b>Notes</b>
		If there was a statistically significant change from background of any tested constituent in any monitoring well, did the owner or operator notify the executive director (and any required local agencies) of the change in writing within 14 days of the determination?	
		<b>Answer</b>	<b>Citations</b>
<b>Item Number 78</b>	<b>Description</b>	330.407(b)	<b>Notes</b>
		Has a statistically significant change from background of any tested constituent at any monitoring well has occurred? If so, at least one of the following should be applicable. Indicate appropriately below. Include a brief description of the statistically significant change and the owner or operator's response in the investigation report comments.	
		<b>Answer</b>	<b>Citations</b>
<b>Item Number 78A</b>	<b>Description</b>	330.407(b)(1)	<b>Notes</b>
		Did the owner or operator immediately place a notice in the operating record describing the difference and establish an assessment monitoring program meeting the requirements of 30 TAC 330.409 (relating to Assessment Monitoring Program) within 90 days of the date of the notice to the executive director required under 30 TAC 330.407(b)?	
		<b>Answer</b>	<b>Citations</b>

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MSW GROUNDWATER O&M PART 2 (Cont)

<b>Item Number</b> 78B	<b>Description</b>	Did the owner or operator submit the results of resampling as appropriate for the statistical method being used within 60 days of determining the statistically significant difference. (The resample data may be used to statistically confirm or disprove the determination.)	
		<b>Answer</b>	<b>Citations</b> 330.407(b)(2) <b>Notes</b>
<b>Item Number</b> 78C	<b>Description</b>	Did the owner or operator document that a source other than a landfill unit caused the contamination or that the statistically significant increase (SSI) resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality and submit a report prepared and certified by a qualified groundwater scientist to the executive director and any local pollution agency that requested to be notified within 90 days of determining a SSI?	
		<b>Answer</b>	<b>Citations</b> 330.407(b)(3) <b>Notes</b>
<b>Item Number</b> 78D	<b>Description</b>	Did the owner or operator not make a demonstration under 30 TAC 330.407(b)(3 ) satisfactory to the executive director, and subsequently initiate an assessment monitoring program?	
		<b>Answer</b>	<b>Citations</b> 330.407(b)(4) <b>Notes</b>
<b>Item Number</b>	<b>Description</b>	SECTION K: Assessment Monitoring Program	
		<b>Answer</b>	<b>Citations</b> <b>Notes</b>
<b>Item Number</b> 79	<b>Description</b>	Did the owner or operator sample and analyze the ground water monitoring system within 90 days of determining that a statistically significant difference has occurred and at least annually (or as otherwise specified by the executive director) thereafter?	
		<b>Answer</b>	<b>Citations</b> 330.409(b) <b>Notes</b>
<b>Item Number</b> 80	<b>Description</b>	Were samples analyzed for the assessment constituents listed in Appendix II to 40 CFR Part 258?	
		<b>Answer</b>	<b>Citations</b> 330.409(b) <b>Notes</b>
<b>Item Number</b> 81	<b>Description</b>	Was at least one sample collected from each well and analyzed for the assessment constituents during each new sampling event?	
		<b>Answer</b>	<b>Citations</b> 330.409(b) <b>Notes</b>
<b>Item Number</b> 82	<b>Description</b>	If any new assessment constituents were detected in any of the point of compliance wells, were a minimum of four statistically independent samples from each background and point of compliance well collected and analyzed to establish background levels for the constituent(s) or a subset of wells and/or a limited list of assessment constituents as specified by the executive director?	
		<b>Answer</b>	<b>Citations</b> 330.409(b) <b>Notes</b>
<b>Item Number</b> 83	<b>Description</b>	Has the owner or operator submitted to the executive director the results from the initial and subsequent sampling events and placed them in the operating record within 60 days after each sampling event?	
		<b>Answer</b>	<b>Citations</b> 330.409(d) <b>Notes</b>
<b>Item Number</b> 84	<b>Description</b>	Has the owner or operator resampled all wells (or the wells specified by the executive director) and analyzed the samples for all assessment constituents (or the assessment constituents specified by the executive director) within 90 days of submittal of the results from a sampling event and on at least a semiannual basis thereafter (or in accordance with an alternative schedule as specified by the executive director)?	
		<b>Answer</b>	<b>Citations</b> 330.409(d)(1) <b>Notes</b>
<b>Item Number</b> 85	<b>Description</b>	Has the owner or operator submitted to the executive director the results from the resampling events and placed them in the operating record within 60 days after each sampling event?	
		<b>Answer</b>	<b>Citations</b> 330.409(d)(1) <b>Notes</b>
<b>Item Number</b> 86	<b>Description</b>	Has the owner or operator established background concentrations for any new Appendix II constituents?	

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		<b>Answer</b>	<b>Citations</b>	<b>330.409(d)(2)</b>	<b>Notes</b>
<b>Item Number</b> 87	<b>Description</b>	Has the owner or operator established ground water protection standards for any constituents detected during the assessment sampling or resampling events, in accordance with 30 TAC 330.409(h) through (J)?			
		<b>Answer</b>	<b>Citations</b>	<b>330.409(d)(3)</b>	<b>Notes</b>
<b>Item Number</b> 88	<b>Description</b>	Has the owner or operator determined whether any 40 CFR Part 258, Appendix II constituents were detected at statistically significant levels above the ground water protection standard within 60 days after each sampling event?			
		<b>Answer</b>	<b>Citations</b>	<b>330.409(g)</b>	<b>Notes</b>
<b>Item Number</b> 89	<b>Description</b>	Were one or more assessment constituents detected at statistically significant levels above the ground water protection standard in any sampling event? If so, answer the following:			
		<b>Answer</b>	<b>Citations</b>		<b>Notes</b>
<b>Item Number</b> 89A	<b>Description</b>	Did the owner or operator, within 60 days of the sampling event, notify the executive director and appropriate local government officials in writing within seven days of this determination?			
		<b>Answer</b>	<b>Citations</b>	<b>330.409(g)(1)(</b>	<b>Notes</b>
<b>Item Number</b> 89B	<b>Description</b>	Did the owner or operator characterize the nature and extent of the release by installing additional monitoring wells as necessary?			
		<b>Answer</b>	<b>Citations</b>	<b>330.409(g)(1)(</b>	<b>Notes</b>
<b>Item Number</b> 89C	<b>Description</b>	Did the owner or operator install at least one additional monitoring well between the monitoring well within the statistically significant level and the next adjacent wells along the point of compliance before the next sampling event and sample these wells in accordance with 30 TAC 330.409(d)(1)?			
		<b>Answer</b>	<b>Citations</b>	<b>330.409(g)(1)(</b>	<b>Notes</b>
<b>Item Number</b> 89D	<b>Description</b>	Did the owner or operator notify in writing all persons who own or occupy the land that directly overlies any part of the plume of contamination if contaminants have migrated offsite as indicated by sampling of wells in accordance with 30 TAC 330.409(d)(1)?			
		<b>Answer</b>	<b>Citations</b>	<b>330.409(g)(1)(</b>	<b>Notes</b>
<b>Item Number</b> 89E	<b>Description</b>	Did the owner or operator initiate an assessment of corrective measures as required by 30 TAC 330.411 within 90 days of the notice to the executive director? If so, complete Section L, Assessment of Corrective Measures.			
		<b>Answer</b>	<b>Citations</b>	<b>330.409(g)(1)(</b>	<b>Notes</b>
<b>Item Number</b>	<b>Description</b>	SECTION L: Assessment of Corrective Measures			
		<b>Answer</b>	<b>Citations</b>		<b>Notes</b>
<b>Item Number</b> 90	<b>Description</b>	Was the assessment of corrective measures completed, or is it on schedule for completion, within 180 days of initiating the assessment?			
		<b>Answer</b>	<b>Citations</b>	<b>330.411(a)</b>	<b>Notes</b>
<b>Item Number</b> 91	<b>Description</b>	Is the owner or operator continuing to monitor in accordance with the assessment monitoring program?			
		<b>Answer</b>	<b>Citations</b>	<b>330.411(b)</b>	<b>Notes</b>
<b>Item Number</b> 92	<b>Description</b>	Does the assessment include an analysis of the effectiveness of potential corrective measures in meeting all of the requirements and objectives or the remedies described under 30 TAC 330.413?			
		<b>Answer</b>	<b>Citations</b>	<b>330.411(c)</b>	<b>Notes</b>
<b>Item Number</b> 93	<b>Description</b>	Does the assessment address performance, reliability, ease of implementation, and potential impacts of appropriate potential remedies, including safety impacts, cross-media impacts, and control of exposure to any residual contamination?			
		<b>Answer</b>	<b>Citations</b>	<b>330.411(c)(1)</b>	<b>Notes</b>

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<b>Item Number</b> 94	<b>Description</b> Does the assessment address time required to begin and complete the remedy?	<b>Answer</b>	<b>Citations</b> 330.411(c)(2)	<b>Notes</b>
<b>Item Number</b> 95	<b>Description</b> Does the assessment address costs of remedy implementation?	<b>Answer</b>	<b>Citations</b> 330.411(c)(3)	<b>Notes</b>
<b>Item Number</b> 96	<b>Description</b> Does the assessment include institutional requirements such as state or local permit requirements or other environmental or public health requirements that may substantially effect implementation of the remedy or remedies?	<b>Answer</b>	<b>Citations</b> 330.411(d)	<b>Notes</b>
<b>Item Number</b> 97	<b>Description</b> Did the owner or operator arrange for a public meeting and provide notice in accordance with 30 TAC 305.501(e)(3) in order to discuss the results of the corrective measures assessment?	<b>Answer</b>	<b>Citations</b> 330.411(d)	<b>Notes</b>
<b>Item Number</b>	<b>Description</b> SECTION M: Selection of Remedy	<b>Answer</b>	<b>Citations</b>	<b>Notes</b>
<b>Item Number</b> 98	<b>Description</b> If the assessment has been completed, did the owner or operator submit a remedy selection report to the executive director for review and approval and place it in the operating record within 30 days of completion of the assessment?	<b>Answer</b>	<b>Citations</b> 330.413(a)	<b>Notes</b>
<b>Item Number</b>	<b>Description</b> SECTION N: Implementation of the Corrective Action Program	<b>Answer</b>	<b>Citations</b>	<b>Notes</b>
<b>Item Number</b>	<b>Description</b> Unless the executive director has determined that remediation of a release of an assessment constituent from a landfill unit is not necessary in accordance with 30 TAC 30.413(e), or that a remedy has been completed in accordance with 330.415(f) and (g), complete Section N, Implementation of the Corrective Action Program.	<b>Answer</b>	<b>Citations</b>	<b>Notes</b>
<b>Item Number</b> 99	<b>Description</b> If a schedule has been established in accordance with 30 TAC 330.413(d), has the owner or operator established and implemented a corrective action ground water monitoring program?	<b>Answer</b>	<b>Citations</b> 330.415(a)(1)	<b>Notes</b>
<b>Item Number</b> 100	<b>Description</b> Does the corrective action ground water monitoring program at least meet the requirements of an assessment monitoring program as specified under 30 TAC 330.409?	<b>Answer</b>	<b>Citations</b> 330.415(a)(1)(	<b>Notes</b>
<b>Item Number</b> 101	<b>Description</b> Does the corrective action ground water monitoring program indicate the effectiveness of the corrective action remedy?	<b>Answer</b>	<b>Citations</b> 330.415(a)(1)(	<b>Notes</b>
<b>Item Number</b> 102	<b>Description</b> Does the corrective action ground water monitoring program demonstrate compliance with the ground water protection standards pursuant to 30 TAC 330.415(f)?	<b>Answer</b>	<b>Citations</b> 330.415(a)(1)(	<b>Notes</b>
<b>Item Number</b> 103	<b>Description</b> Has the owner or operator prepared a detailed written cost estimate, in current dollars, of the cost of hiring a third party to perform the corrective action program?	<b>Answer</b>	<b>Citations</b> 330.509(a)	<b>Notes</b>
<b>Item Number</b> 104	<b>Description</b> Does the corrective action cost estimate account for the total costs of corrective action activities as described in the corrective action plan for the entire corrective action period?	<b>Answer</b>	<b>Citations</b> 330.509(a)(1)	<b>Notes</b>
<b>Item Number</b> 105	<b>Description</b> Was the cost estimate for financial assurance submitted with the corrective action plan?	<b>Answer</b>	<b>Citations</b>	<b>Notes</b>

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		<b>Answer</b>	<b>Citations</b>	<b>330.509(a)</b>	<b>Notes</b>
<b>Item Number</b> 106	<b>Description</b>	If changes in the corrective action program or unit conditions have resulted in an increase in the maximum costs of corrective action, has the owner or operator increased the corrective action cost estimate and the amount of financial assurance provided?			
		<b>Answer</b>	<b>Citations</b>	<b>330.509(a)(1)</b>	<b>Notes</b>
<b>Item Number</b> 107	<b>Description</b>	Has the owner or operator established and maintained financial assurance for the costs of the most recent corrective action program in accordance with 30 TAC Chapter 37, Subchapter R?			
		<b>Answer</b>	<b>Citations</b>	<b>330.509(b)</b>	<b>Notes</b>
<b>Item Number</b> 108	<b>Description</b>	If a schedule has been established in accordance with 30 TAC 330.413(d), has the owner or operator implemented the corrective action remedy selected under 30 TAC 330.413?			
		<b>Answer</b>	<b>Citations</b>	<b>330.415(a)(2)</b>	<b>Notes</b>
<b>Item Number</b> 109	<b>Description</b>	If a schedule has been established in accordance with 30 TAC 330.237(d), has the owner or operator taken any interim measures necessary to ensure the protection of human health and the environment?			
		<b>Answer</b>	<b>Citations</b>	<b>330.415(a)(3)</b>	<b>Notes</b>
<b>Item Number</b> 110	<b>Description</b>	If the owner or operator has determined that compliance with the requirements of 30 TAC 330.413(b) are not being achieved through the selected remedy, has the owner or operator implemented other methods or techniques that could practicably achieve compliance with the requirements, unless the owner or operator has determined that the requirements cannot be practically achieved and obtained approval from the executive director in accordance with 30 TAC 330.415(c)?			
		<b>Answer</b>	<b>Citations</b>	<b>330.415(b)</b>	<b>Notes</b>
<b>Item Number</b> 111	<b>Description</b>	If the owner or operator has determined that compliance with the requirements of 30 TAC 330.413(b) cannot be practically achieved with any currently available methods, has the owner or operator presented to the executive director certification by a qualified ground water scientist to that effect?			
		<b>Answer</b>	<b>Citations</b>	<b>330.415(c)(1)</b>	<b>Notes</b>
<b>Item Number</b> 112	<b>Description</b>	If the owner or operator has determined that compliance with the requirements of 30 TAC 330.413(b) cannot be practically achieved with any currently available methods, has the owner or operator implemented alternative measures, with the approval of the executive director, to control exposure of humans or the environment to residual contamination, as necessary to protect human health and the environment?			
		<b>Answer</b>	<b>Citations</b>	<b>330.415(c)(2)</b>	<b>Notes</b>
<b>Item Number</b> 113	<b>Description</b>	If the owner or operator has determined that compliance with the requirements of 30 TAC 330.413(b) cannot be practically achieved with any currently available methods, has the owner or operator implemented alternative measures, with the approval of the executive director, for control of the sources of contamination, or for removal or decontamination of equipment, units, devices, or structures that are technically practicable and consistent with the overall objective of the remedy?			
		<b>Answer</b>	<b>Citations</b>	<b>330.415(c)(3)</b>	<b>Notes</b>

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<b>Item Number</b> 114	<b>Description</b>	If the owner or operator has determined that compliance with the requirements of 30 TAC 330.413(b) cannot be practically achieved with any currently available methods, has the owner or operator placed a copy of all approved alternate measures in the operating record?		
	<b>Answer</b>	<b>Citations</b>	330.415(c)(4)	<b>Notes</b>
<b>Item Number</b> 115	<b>Description</b>	Have all solid waste managed in accordance with a remedy required under 330.413 or an interim measure required under 330.413(a)(3) been managed in a manner that is protective of human health and the environment and that complies with applicable RCRA requirements?		
	<b>Answer</b>	<b>Citations</b>	330.415(d)	<b>Notes</b>
<b>Item Number</b> 116	<b>Description</b>	Upon implementation of the corrective action program, has the owner or operator submitted an annual corrective action report by March 1st every following year while in corrective action?		
	<b>Answer</b>	<b>Citations</b>	330.415(e)	<b>Notes</b>
<b>Item Number</b> 117	<b>Description</b>	Do annual corrective action reports include a contour map of piezometric water levels in the uppermost aquifer?		
	<b>Answer</b>	<b>Citations</b>	330.415(e)(4)	<b>Notes</b>