

**Oklahoma Department of Environmental Quality  
Supplemental Checklist for Groundwater Monitoring**

FACILITY \_\_\_\_\_

EPA ID# \_\_\_\_\_

DATE \_\_\_\_\_

*(Note: Interim status facilities – complete Sections A and B. Fully permitted facilities – complete sections A, C, D, and E)*

| Regulatory Requirements  | Area of Non-compliance | Remarks |
|--|------------------------|---------|
| <b>A. General Requirements</b>   |                        |         |
| A.1. Has the o/o installed the number of groundwater monitoring wells required by the permit? [Permit]   |                        |         |
| A.2. For each monitoring well physically inspected, were the wells constructed to prevent contamination of samples and groundwater? [40 CFR 264.97(c)/265.91(c)] If no, identify which wells are deficient and nature of deficiency.   |                        |         |
| A.3. Does the groundwater monitoring program include appropriate procedures and techniques for EACH of the following: (1) sample collection; (2) sample preservation and shipment; (3) analytical procedures; and (4) chain of custody control? [40 CFR 264.97(d)/265.92(a)]                 |                        |         |
| A.4. Does the o/o determine groundwater surface elevation in all wells each time groundwater is sampled? [40 CFR 264.97(f)/265.92(e)]  |                        |         |
| <b>B. Interim Status Facilities</b>  |                        |         |
| B.1. Does the o/o perform groundwater monitoring for the following constituents at least annually: (1) chloride; (2) iron; (3) manganese; (4) phenols; (5) sodium; (6) sulfate? [40 CFR 265.92(d)(1)]  |                        |         |
| B.2. Does the o/o perform groundwater monitoring for the following constituents at least semi-annually: (1) pH; (2) specific conductance; (3) total organic carbon; & (4) total organic halogen? [40 CFR 265.92(d)(2)] If no, identify which parameters are missing from which wells.        |                        |         |
| <i>If no contamination has been evident, skip to Section C.</i>  |                        |         |
| B.3. Did the o/o notify the DEQ of the evidence of contamination in writing within 7 days? [40 CFR 265.93(d)(1)]   |                        |         |
| B.4. Did the o/o develop a groundwater quality assessment program within 15 days of the notification required under B.3 and place a copy of the assessment in the operating record? [40 CFR 265.93(d)(2)]  |                        |         |
| B.5. Was the plan required under B.4. certified by a qualified geologist or geotechnical engineer? [40 CFR 265.93(d)(2)]   |                        |         |
| B.6. Did the o/o implement the groundwater quality assessment program? [40 CFR 265.93(d)(4)]   |                        |         |
| B.7. Did the o/o prepare a report assessing the groundwater quality and place a copy of the report in the operating record? [40 CFR 265.93(d)(5)]  |                        |         |
| B.8. Does the o/o maintain groundwater monitoring records in the operating record and submit those records to the DEQ? [40 CFR 265.94]   |                        |         |
| <b>C. Detection Monitoring</b>   |                        |         |
| C.1. Does the o/o perform detection monitoring for each parameter specified in the facility permit? [40 CFR 264.98(a)] If no, identify which parameters are missing from which wells.  |                        |         |
| C.2. Does the o/o determine groundwater flow rate and direction in the uppermost aquifer at least annually? [40 CFR 264.98(e)]   |                        |         |
| C.3. After each detection monitoring event, does the o/o determine whether there is statistically significant evidence of contamination for any constituent monitored? [40 CFR 264.98(f)]  |                        |         |
| C.4. Did the o/o use the statistical method(s) specified by the permit [40 CFR 264.98(f)(1)]   |                        |         |
| C.5. Did the o/o determine whether there was statistically significant evidence of contamination within the time frame specified by the permit? [40 CFR 264.98(f)(2)]  |                        |         |
| <i>If no statistically significant evidence of contamination has been found, skip to Section D.</i>  |                        |         |
| C.6. Did the o/o notify the DEQ of the statistically significant evidence of contamination in writing within 7 days? [40 CFR 264.98(g)(1)]   |                        |         |
| C.7. Did the notification indicate what constituents have shown statistically significant evidence of contamination? [40 CFR 264.98(g)(1)]   |                        |         |
| C.8. Did the o/o ensure the groundwater was immediately sampled for all constituents in Appendix IX of Part 264 (or an alternative set as approved by the permit)? [40 CFR 264.98(g)(2)] If no, identify which constituents are missing.   |                        |         |
| C.9. Within 90 days, did the o/o submit EITHER: (1) a permit modification to establish a compliance monitoring program; OR (2) a demonstration that a source other than a regulated unit is causing the statistically significant evidence of contamination? [40 CFR 264.98(g)(4) or (g)(6)] |                        |         |

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| <b>D. Compliance Monitoring</b> ( <i>Note: If compliance monitoring is not required, skip to Section E</i> )   |                        |         |
| D.1. Has the owner/operator installed a groundwater monitoring system at the compliance point? [40 CFR 264.99(b)]  |                        |         |
| D.2. Does the o/o determine groundwater flow rate and direction in the uppermost aquifer at least annually? [40 CFR 264.99(e)]   |                        |         |
| D.3. Does the o/o perform compliance monitoring at the frequency specified in the permit? [40 CFR 264.99(f)]   |                        |         |
| D.4. Does the o/o perform compliance monitoring for each constituent in Appendix IX of Part 264 (or an alternative set as approved by the permit)? [40 CFR 264.99(g)] If no, identify which constituents are missing.  |                        |         |
| D.5. After each compliance monitoring event, does the o/o determine whether there is statistically significant evidence of contamination for any constituent monitored? [40 CFR 264.99(d)]   |                        |         |
| D.6. Does the o/o use the statistical method(s) specified by the permit [40 CFR 264.99(d)(1)]  |                        |         |
| D.7. Does the o/o determine whether there was statistically significant evidence of contamination within the time frame specified by the permit? [40 CFR 264.99(d)(2)]   |                        |         |
| <i>If no statistically significant evidence of contamination has been found, skip to Section E.</i>  |                        |         |
| D.8. Did the owner/operator notify the DEQ of the statistically significant evidence of contamination in writing within 7 days? [40 CFR 264.99(h)(1)]  |                        |         |
| D.9. Did the notification indicate what constituents have shown statistically significant evidence of contamination? [40 CFR 264.99(h)(1)]   |                        |         |
| D.10. Did the o/o submit EITHER: (1) a permit modification application within 180 days to establish a corrective action program; OR (2) a demonstration within 90 days that a source other than a regulated unit is causing the statistically significant evidence of contamination? [40 CFR 264.99(h)(2) or (i)(2)] |                        |         |
| <b>E. Corrective Action</b> ( <i>Note: If corrective action is not required, skip this Section</i> )   |                        |         |
| E.1. Did the o/o begin the corrective action program within the timeframe specified by the permit? [40 CFR 264.100(c)]   |                        |         |
| E.2. Does the o/o conduct the corrective action program in accordance with the requirements of the permit? [40 CFR 264.100(b)]   |                        |         |
| E.3. Does the o/o submit annual reports to the DEQ on the effectiveness of the corrective action program? [40 CFR 264.100(g)]  |                        |         |