

3745-65-92

Sampling and analysis.

(A) The owner or operator ~~must~~shall obtain and analyze samples from the installed ground water monitoring system. The owner or operator ~~must~~shall develop and follow a ground water sampling and analysis plan. ~~He must~~The owner or operator shall keep this plan at the facility. The plan ~~must~~shall include procedures and techniques for:

- (1) Sample collection;
- (2) Sample preservation and shipment;
- (3) Analytical procedures;~~and~~
- (4) Chain of custody control.

[Comment: See ~~the most recent~~ Ohio EPA's "Technical Guidance Manual (TGM) for Hydrogeologic Investigations and Ground Water Monitoring" for discussions of sampling and analysis procedures. See rule 3745-50-11 of the Administrative Code titled "Incorporated by reference" for information on accessing this document.]

(B) The owner or operator ~~must~~shall determine the concentration or value of the following parameters in ground water samples in accordance with paragraphs (C) and (D) of this rule:

- (1) Parameters characterizing the suitability of the ground water as a drinking water supply, as specified in the table in this rule.
- (2) Parameters establishing ground water quality:
 - (a) Chloride;
 - (b) Iron;
 - (c) Manganese;
 - (d) Phenols;
 - (e) Sodium;~~and~~
 - (f) Sulfate.

~~[Comment: These parameters are to be used as a basis for comparison in the event a ground water quality assessment is required under paragraph (D) of rule 3745-65-93 of the Administrative Code.]~~

[Comment: These parameters are to be used as a basis for comparison in the event a ground water quality assessment is required under paragraph (D) of rule 3745-65-93 of the Administrative Code.]

(3) Parameters used as indicators of ground water contamination:

- (a) pH_z.
- (b) Specific conductance_z.
- (c) Total organic carbon; ~~and~~.
- (d) Total organic halogen.

(C) For:

- (1) ~~For all~~All monitoring wells, the owner or operator ~~must~~shall establish initial background concentrations or values of all parameters specified in paragraph (B) of this rule. ~~He must~~The owner or operator shall do this quarterly for one year.
- (2) ~~For each~~Each of the indicator parameters specified in paragraph (B)(3) of this rule, at least four replicate measurements ~~must~~shall be obtained for each sample and the initial background arithmetic mean and variance ~~must~~shall be determined by pooling the replicate measurements for the respective parameter concentrations or values in samples obtained from upgradient wells during the first year.

(D) After the first year, all monitoring wells ~~must~~shall be sampled and the samples analyzed with the following frequencies:

- (1) Samples collected to establish ground water quality ~~must~~shall be obtained and analyzed for the parameters specified in paragraph (B)(2) of this rule at least annually.
- (2) Samples collected to indicate ground water contamination ~~must~~shall be obtained and analyzed for the parameters specified in paragraph (B)(3) of this rule at

least semi-annually.

(E) Elevation of the ground water surface at each monitoring well ~~must~~shall be determined each time a sample is obtained.

Parameters Characterizing the Suitability of the Ground Water As A Drinking Water Supply

Parameter	Maximum Level <u>milligrams per liter</u> (mg/L)
Arsenic	0.01
Barium	2.0
Cadmium	0.005
Chromium	0.1
Fluoride	4.0
Lead	0.015
Mercury	0.002
Nitrate (as N)	10.0
Selenium	0.05
Silver	0.01
Endrin	0.002
Lindane	0.0002
Methoxychlor	0.04
Toxaphene	0.003
2,4-D	0.07
2,4,5-TP (Silvex)	0.05
Radium	5 <u>picoCuries per liter</u> (pCi/L)
Gross Alpha	15 pCi/L
Gross Beta	4 pCi/L

Turbidity	5 <u>nephelometric turbidity units (NTU)</u>
Coliform Bacteria	no fecal at all; 5% <u>per cent</u> of all other

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, federal rules, and federal statutory provisions referenced in this rule, see rule 3745-50-11 of the Administrative Code titled "Incorporated by reference."]

Effective: 03/24/2017

Five Year Review (FYR) Dates: 11/29/2016 and 11/29/2021

CERTIFIED ELECTRONICALLY

Certification

02/15/2017

Date

Promulgated Under: 119.03
Statutory Authority: 3734.12
Rule Amplifies: 3734.12
Prior Effective Dates: 04/15/1981, 01/07/1983, 12/30/1989, 04/01/1990,
11/11/1999, 03/13/2002, 12/07/2004