

CSI - Ohio

The Common Sense Initiative

Business Impact Analysis

Agency Name: Ohio Environmental Protection Agency

Regulation/Package Title: Underground Injection Control Minor Amendments 2016

Rule Number(s): 3745-7-01, 3745-34-04, 3745-7-08, 3745-34-12, 3745-34-23, 3745-34-34, and 3745-34-40.

Date: 4/21/2016

Rule Type

New

Amended

5-Year Review

Rescinded

The Common Sense Initiative was established by Executive Order 2011-01K and placed within the Office of the Lieutenant Governor. Under the CSI Initiative, agencies should balance the critical objectives of all regulations with the costs of compliance by the regulated parties. Agencies should promote transparency, consistency, predictability, and flexibility in regulatory activities. Agencies should prioritize compliance over punishment, and to that end, should utilize plain language in the development of regulations.

Regulatory Intent

1. Please briefly describe the draft regulation in plain language.

Ohio EPA is proposing to file several rules in Chapter 3745-34 of the Ohio Administrative Code (OAC) with minor amendments. The rules in this package regulate the underground injection of various waste streams and establish the following requirements:

- Underground injection control definitions.
- Classification of wells.
- Prohibition of class IV wells.

- Application and authorization by permit.
- Modification or revocation and reissuance of permits.
- Mechanical integrity of injection wells.
- Seismic reflection survey requirements for class I wells.

2. Please list the Ohio statute authorizing the Agency to adopt this regulation.

Division (B) of section 6111.043 of the Revised Code authorizes Ohio EPA to adopt these regulations. It states “the director of environmental protection, in consultation with the director of natural resources, shall adopt rules... governing the injection of sewage, industrial waste, hazardous waste and other wastes into wells.”

3. Does the regulation implement a federal requirement? Is the proposed regulation being adopted or amended to enable the state to obtain or maintain approval to administer and enforce a federal law or to participate in a federal program?

If yes, please briefly explain the source and substance of the federal requirement.

Yes, these regulations enable Ohio EPA to determine compliance with the Safe Drinking Water Act (SDWA), as well as retain primary enforcement authority from the Federal Government. These rules are used by Ohio EPA to prevent contamination of underground sources of drinking water. The federal counterpart to these rules can be found in Title 40 of the Code of Federal Regulations (C.F.R.), Parts 144 (Underground Injection Control Program) and 146 (Underground Injection Control Program: Criteria and Standards).

4. If the regulation includes provisions not specifically required by the federal government, please explain the rationale for exceeding the federal requirement.

The following are areas where Ohio EPA’s rules are more stringent:

- OAC rule 3745-34-12 incorporates requirements from state statute, section 6111.043 of the Revised Code not in the federal counterpart. These requirements include a plan for waste disposal, chemical composition of the injectate, a topographic map by a registered surveyor, and permit fees.
- OAC rule 3745-34-34 requires an Ohio EPA representative be present for a demonstration of mechanical integrity unless the representative chooses not to be present. The requirement is in our rule because the regulated community prefers Ohio EPA be present onsite during these demonstrations to verify that the tests are run correctly and to provide immediate authorization for any necessary changes to the approved plan. The rule also requires that injection cease if mechanical integrity is

not established or lost. If mechanical integrity is lost, the owner or operator must follow operating requirements established in rule 3745-34-56 of the OAC.

5. What is the public purpose for this regulation (i.e., why does the Agency feel that there needs to be any regulation in this area at all)?

The Ohio-specific public policy goals (as stated in Ohio Revised Code section 6111.043) are to establish a program for regulation of the injection of sewage, industrial waste, hazardous waste, and other wastes into wells in order to control pollution of the waters of the state, to prevent contamination of underground sources of drinking water, and to satisfy all requirements of the Safe Drinking Water Act (SDWA). These rules are required for Ohio to maintain SDWA primary enforcement authority. In addition, the rules aim to prevent the migration of contamination into underground sources of drinking water via underground injection and are, therefore, protective of human health.

6. How will the Agency measure the success of this regulation in terms of outputs and/or outcomes?

The Agency will base success of all of the rules in this package on compliance rates within the underground injection control program. Compliance is determined through plan review, inventory records, anonymous complaints and inspections of facilities with underground injection control wells.

Development of the Regulation

7. Please list the stakeholders included by the Agency in the development or initial review of the draft regulation.

If applicable, please include the date and medium by which the stakeholders were initially contacted.

Stakeholders include underground injection control owners and operators, consultants, environmental organizations, other state agencies and the general public. The only measure someone has to take to be notified of DDAGW's potential rule activity is to request to be added to our electronic or hard-copy mailing list. Stakeholders can also sign themselves up for this notification directly from Ohio EPA's website.

Stakeholders were first notified of DDAGW's plans to revise these rules on February 6, 2013 by electronic or regular mail in accordance with their preference.

8. What input was provided by the stakeholders, and how did that input affect the draft regulation being proposed by the Agency?

Stakeholders did not provide any comments during early stakeholder outreach, held from February 6 – March 6, 2013. However, several comments were received during interested party review held from May 19 – June 20, 2014. Two meetings, phone calls and additional reviews of draft rule revisions by stakeholders were performed in order to address their concerns. DDAGW has addressed the comments and is proposing to adopt these rules with minor amendments based on stakeholder input.

9. What scientific data was used to develop the rule or the measurable outcomes of the rule? How does this data support the regulation being proposed?

The rules in this chapter are based on scientific analyses required by U.S. EPA in the development of 40 C.F.R. Parts 144 and 146, which are the Federal Underground Injection Control Program Rules. The federal counterparts are the foundation for these rules.

10. What alternative regulations (or specific provisions within the regulation) did the Agency consider, and why did it determine that these alternatives were not appropriate? If none, why didn't the Agency consider regulatory alternatives?

In order to retain primary enforcement authority, Ohio EPA is required to adopt the federal counterparts of rules. Therefore, Ohio EPA could not consider alternatives to rules in OAC Chapter 3745-34.

11. Did the Agency specifically consider a performance-based regulation? Please explain. *Performance-based regulations define the required outcome, but don't dictate the process the regulated stakeholders must use to achieve compliance.*

The rules in this package are performance-based and will demonstrate the overall effectiveness of properly constructed and maintained underground injection control wells at preventing the migration of contaminants into underground sources of drinking water.

12. What measures did the Agency take to ensure that this regulation does not duplicate an existing Ohio regulation?

Ohio EPA has reviewed internal regulations and determined there are no duplications. As part of the review process, Ohio EPA deleted various duplications that were previously in place. However, at the request of stakeholders, several of the removed duplications were reinstated and the rules are either being adopted with no changes or minor revisions.

13. Please describe the Agency’s plan for implementation of the regulation, including any measures to ensure that the regulation is applied consistently and predictably for the regulated community.

Ohio EPA implemented the regulations in 1984 including being granted primacy by U.S. EPA. All inspections and regulatory monitoring of Class I, IV and V injection wells per these rules is performed by four employees in the UIC unit in the Columbus Central Office of the Ohio EPA. The manager of the UIC unit ensures that employees are trained and knowledgeable about the rules and ensures consistency among the three non-managerial staff in applying the rules.

Adverse Impact to Business

14. Provide a summary of the estimated cost of compliance with the rule. Specifically, please do the following:

a. Identify the scope of the impacted business community;

The cost of compliance of all rules in this rules package would fall upon facilities with underground injection wells.

b. Identify the nature of the adverse impact (e.g., license fees, fines, employer time for compliance); and

The rules necessitate time for compliance to satisfy completing permit applications. Some facilities may also need to invest resources into conducting a mechanical integrity test and seismic reflection data survey.

c. Quantify the expected adverse impact from the regulation.

The adverse impact can be quantified in terms of dollars, hours to comply, or other factors; and may be estimated for the entire regulated population or for a “representative business.” Please include the source for your information/estimated impact.

There is no adverse impact associated with OAC Rules 3745-7-01, 3745-34-04 and 3745-34-23.

OAC Rule 3745-34-08:

I. Personnel Costs

a. Closure Plan

Time estimated for an engineer to complete the closure plan is 32 hours at an average rate of \$110.62 per hour. The costs incurred for the plan are estimated to be \$3,539.84.

b. Class IV Well Closure

Time estimated for a construction operator to properly abandon, dispose of, and manage material from a class IV well is 40 hours at an average rate of \$18.97* per hour. The costs incurred for the plan are estimated to be \$758.80.

c. Closure Report

Time estimated for an engineer to complete the closure report is 40 hours at an average rate of \$110.62 per hour. The costs incurred for the plan are estimated to be \$4,424.80.

*Note: Hourly pays included below that are marked with an asterisk were based on the average hourly pay for that position in the “Occupational Outlook Handbook” 2012-2013 edition released by the Bureau of Labor and Statistics in the U.S. Department of Labor. The remaining hourly pays (e.g., geologist, engineer) were based on pays included in the U.S. EPA document “Geologic Carbon Dioxide Sequestration Technology and Cost Analysis,” November 2010.

II. New Equipment or Other Capital Costs

All costs are estimates based on Agency staff experience. All costs treat the contaminated soil as hazardous waste. True costs will vary depending on the site specific circumstances.

a. Backhoe and operator costs

Backhoe rental: \$100.00/hour

Operator cost: \$50.00/hour

Mobilization cost: \$200.00

Number of estimated hours: 10 hours

Total cost for backhoe and operator: \$1,700.00

b. Decontamination costs

Decontamination pad: \$100.00

Steam cleaner: \$120.00

Containerizing and disposing of one drum of waste: \$100.00

Total cost of decontamination: \$320.00

c. Hauling and disposal of contaminated soil and material costs

Containerizing, transport and disposal of waste: \$100.00/drum

Number of drums: 10

Cost of analysis of drum contents: \$1,000.00 per site

Total cost of disposal: \$2,000.00 + \$1,000 per additional site

d. Clean fill to replace contaminated soil

Cost of clean fill: \$14.00/yard

Total yards of fill needed: 10

Total cost of fill: \$140.00

III. Operating/Indirect Central Service Costs

Operating/Indirect costs are calculated using the average cost at Ohio EPA (22.1% of direct costs). This cost should be similar to the average cost for private and governmental entities regulated by this rule. The total direct costs are calculated using the total of any personnel costs, new equipment or other capital costs, and any other costs (e.g., supplies/mailing).

Total direct costs for the first year: \$21,748.04

Percent indirect costs of total direct costs: 22.1%

Total operating/indirect costs incurred complying with this rule during the first year: \$4,806.32

IV. Other Costs – Supplies/Mailing Costs

The closure plan, closure report, and semi-annual report will all need to be mailed to Ohio EPA. The costs associated with mailing include paper, envelopes, and shipping. These costs are estimated to be approximately \$15.00 plus approximately \$2.00 for mailing of each of the semi-annual reports (i.e., \$4 per year) each subsequent year.

V. Total Costs for Complying with OAC Rule 3745-34-08:

a. Personnel Costs	
i. Closure Plan	\$3,539.84
ii. Class IV Well Closure	\$758.80
iii. Closure Report	\$4,424.80
b. New Equipment or Other Capital Costs	
i. Backhoe and Operator	\$1,700.00
ii. Decontamination	\$320.00
iii. Hauling and Disposal of Contaminated Soil and Material	\$2,000.00 + \$1,000.00 per additional site
iv. Clean Fill to Replace Contaminated Soil	\$140.00
c. Operating/Indirect Central Service Costs	\$4,806.32
d. Other Costs	
i. Supplies/Mailing	\$15.00 + \$4.00 for each subsequent year
TOTAL:	\$17,704.46 + \$4.00 for each subsequent year + \$1,000.00 per additional site

OAC Rule 3745-34-12:

I. Personnel Costs

a. General Information Report

Time estimated for an engineer to complete this report is 16 hours at an average rate of \$110.62 per hour. The cost estimated to complete this report is \$1,769.92.

b. Survey of Well Location

Time estimated for a registered surveyor to complete this survey is 8 hours at an average rate of \$26.39* per hour. The cost estimated to complete the survey is \$211.12.

c. Drilling Waste Disposal Plan

Time estimated for an engineer to complete the plan is 2 hour at an average rate of \$110.62 per hour. The cost estimated to complete this plan is \$221.24.

d. Chemical Composition of Injectate

Time estimated for a laboratory technician to complete the laboratory analyses is 8 hours at an average rate of \$22.18* per hour (for chemical technicians). The cost estimated to complete the analysis is \$177.44.

e. Topographic Map

Time estimated for a registered surveyor to complete this map is 16 hours at an average rate of \$26.39* per hour. The cost estimated to complete the map is \$422.24.

f. Plugging and Abandonment Plan

Time estimated for an engineer to complete this plan is 8 hours at an average rate is \$110.62 per hour. The cost for completing this requirement is estimated to be \$884.96.

g. Permit Fees

The cost per permit application submitted is \$3,000.

Note: Permit application only applies for new Class I and Class V wells.

h. Testing, Drilling, and Construction Plan

Time estimated for an engineer to complete this plan is 8 hours at an average rate is \$110.62 per hour. The cost for completing this requirement is estimated to be \$884.96.

i. Reporting and Record Keeping Specifications

Time estimated for an engineer to complete these specifications is 4 hours at an average rate of \$110.62 per hour. The cost for completing this requirement is estimated to be \$442.48.

II. Operating/Indirect Central Service Costs

Operating/Indirect costs are calculated using the average cost at Ohio EPA (22.1% of direct costs). This cost should be similar to the average cost for private and governmental entities regulated by this rule. The total direct costs are calculated using the total of any personnel costs, new equipment or other capital costs, and any other costs (e.g., supplies/ mailing).

Total direct costs: \$4,934.36 to 7,934.36, depending on whether \$3,000 permit fee applies

Percent indirect costs of total direct costs: 22.1%

Total operating/indirect costs incurred complying with this rule: \$1,090.49 to 1,753.49

III. Total Costs for Complying with OAC Rule 3745-34-12:

a. Personnel Costs	
i. General Information Report:	\$1,769.92
ii. Survey of Well Location:	\$211.12
iii. Drilling Waste Disposal Plan:	\$221.24
iv. Chemical Composition of Injectate:	\$174.44
v. Topographic Map:	\$422.24
vi. Plugging and Abandonment Plan:	\$844.96
vii. Permit Fee Per Application (only for new Class I and Class V wells)	\$3,000.00
viii. Testing, Drilling, and Construction Plan:	\$844.96
ix. Reporting and Record Keeping Specifications:	\$442.48
b. Operating/Indirect Central Service Costs	\$1,090.49 to 1,753.49
TOTAL:	\$6,024.85 to 9,687.85, depending on whether \$3,000 permit fee applies

*Note: Hourly pays included below that are marked with an asterisk were based on the average hourly pay for that position in the “Occupational Outlook Handbook” 2012-2013 edition released by the Bureau of Labor and Statistics in the U.S. Department of Labor. The remaining hourly pays (e.g., geologist, engineer) were based on pays included in the U.S. EPA document “Geologic Carbon Dioxide Sequestration Technology and Cost Analysis,” November 2010.

OAC Rule 3745-34-34:

The estimated cost of compliance includes the testing and reporting requirements associated with demonstrating mechanical integrity. This requirement generally applies to class I wells, which almost exclusively are larger private enterprises. The agency estimates it will cost a permittee approximately \$3,782 to fulfill the reporting requirements. If the results from the testing described above do not satisfactorily demonstrate that the injectate is not move into the underground source of drinking water and vice-versa, additional testing may be required and cost approximately \$44,122. Therefore, the estimated cost of compliance with this rule ranges from \$49,795 to \$93,917. ¹

¹ U.S. Department of Labor, Bureau of Labor Statistics Inflation Calculator used to account for inflation from 2004 – 2016.

OAC Rule 3745-34-40:

The cost of compliance with this rule may vary significantly based on the effort needed to image and properly identify all unknown geologic features that may affect

the well site. Ohio EPA staff estimate that the cost may range from \$42,676 to \$121,931.²

² U.S. Department of Labor, Bureau of Labor Statistics Inflation Calculator used to account for inflation from 2005 – 2016.

15. Why did the Agency determine that the regulatory intent justifies the adverse impact to the regulated business community?

The Agency considers the overall cost for complying with these regulations to be minor in comparison with ensuring that underground sources of drinking water are protected for public consumption.

Regulatory Flexibility

16. Does the regulation provide any exemptions or alternative means of compliance for small businesses? Please explain.

No exemptions or alternative means of compliance for small businesses have been written into this rules package.

17. How will the agency apply Ohio Revised Code section 119.14 (waiver of fines and penalties for paperwork violations and first-time offenders) into implementation of the regulation?

Ohio EPA does not assign fines and penalties for first-time offenders, and prefers to obtain compliance through outreach first and if needed, written notice of violations prior to any type of formal enforcement.

18. What resources are available to assist small businesses with compliance of the regulation?

The following resources are available:

- Ohio EPA's Office of Compliance Assistance and Pollution Prevention (OCAPP) is a non-regulatory program that provides information and resources to help small businesses comply with environmental regulations. OCAPP also helps customers identify and implement pollution prevention measures that can save money, increase business performance and benefit the environment. Services of the office include a toll-free hotline, on-site compliance and pollution prevention assessments, workshops/training, plain-English publications library and assistance in completing

permit application forms. Additional information is available at <http://www.epa.ohio.gov/ocapp>.

- Ohio EPA also has a permit assistance web page (http://www.epa.ohio.gov/dir/permit_assistance.aspx) that contains links to several items to help businesses navigate the permit process, including the Permit Wizard, Answer Place, Ohio EPA's Guide to Environmental Permitting and eBusiness Center.
- Ohio EPA maintains the Compliance Assistance Hotline 800-329-7518, weekdays from 8:00 a.m. to 5:00 p.m.
- US. EPA Small Business Gateway also has information on environmental regulations for small businesses available at <http://www.epa.gov/smallbusiness/> and a Small Business Ombudsman Hotline 800-368-5883.
- Facilities can turn to members of Ohio EPA's Division of Drinking and Ground Waters' Underground Injection Control (UIC) Unit for technical assistance. UIC contacts include Valerie Orr, Jess Stottsberry, and Lindsay Taliaferro. They can be reached by calling 614-644-2752. The UIC Unit also maintains a website which includes answers to many commonly asked questions (<http://epa.ohio.gov/ddagw/uic.aspx>).