Ohio | Common Sense Initiative

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Business Impact Analysis

Agency, Board, or Commission Name: Ohio Dept. of Natural Resources – Division of Oil and Gas Resources Management

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Regulation/Package Title (a general description of the rules' substantive content): Class II Disposal Wells and Surface Facilities

Rule Number(s): Rescind 1501:9-3-01 through 1501:9-3-13 and replace with 1501:9-3-01 through 1501:9-3-10

Date of Submission for CSI Review: August 30, 2021

Public Comment Period End Date: September 13, 2021

Rule Type/Number of Rules: Rescind 13 rules and Replace with 10 rules

The Common Sense Initiative is established in R.C. 107.61 to eliminate excessive and duplicative rules and regulations that stand in the way of job creation. Under the Common Sense Initiative, agencies must balance the critical objectives of regulations that have an adverse impact on business with the costs of compliance by the regulated parties. Agencies should promote transparency, responsiveness, predictability, and flexibility while developing regulations that are fair and easy to follow. Agencies should prioritize compliance over punishment, and to that end, should utilize plain language in the development of regulations.

Reason for Submission

1. **R.C. 106.03 and 106.031 require agencies, when reviewing a rule, to determine whether the rule has an adverse impact on businesses as defined by R.C. 107.52. If the agency**

determines that it does, it must complete a business impact analysis and submit the rule for CSI review.

Which adverse impact(s) to businesses has the agency determined the rule(s) create?

The rule(s):

a. ☒ **Requires a license, permit, or any other prior authorization to engage in or operate a line of business.**

b. ☒ **Imposes a criminal penalty, a civil penalty, or another sanction, or creates a cause of action for failure to comply with its terms.**

c. ☒ **Requires specific expenditures or the report of information as a condition of compliance.**

d. ☒ **Is likely to directly reduce the revenue or increase the expenses of the lines of business to which it will apply or applies.**

Regulatory Intent

2. **Please briefly describe the draft regulation in plain language.**
Please include the key provisions of the regulation as well as any proposed amendments.

The Department of Natural Resources, Division of Oil and Gas Resources Management (Division) is undergoing a complete rewrite and reorganization of division 1501:9 of the Administrative Code. This chapter of rule (1501:9-3) governs Class II Disposal Wells and associated Surface Facilities and features a near total rewrite and reorganization of the current rule.

The rule governs the siting, permitting, construction, operation, and reclamation of Class II Disposal Wells and Surface Facilities. The rule includes general provisions that ensure compliance with Ohio's primacy agreement with U.S. EPA and the protection of underground sources of drinking water as well as the prevention of contamination and pollution. One amendment to the rule is increased setback distances and additional siting criteria for Class II Disposal Wells and Surface Facilities, offering greater distances from the wells and facilities to nearby homes and other buildings not situated on the subject tract (I.e., those who are not involved in the project). Siting criteria for sensitive areas are also established, as is greater authority for the Chief of the Division to require enhanced measures that protect these areas. The rule includes more detailed reporting provisions, clarifies the Division's enforcement authority, and establishes the procedures an operator may take to resume operations after the enforcement actions are taken.

The rule enhances the permitting, construction, and operation requirements of Class II Disposal Wells and Surface Facilities. These enhancements are the result of: changes in standard industry practices; the size and volume of Class II Disposal Wells and Surface Facilities now operating in Ohio; and responses to specific situations that have occurred. Some of the enhancements include, but are not limited to:

- A greater area-of-review of penetrating wells around newly proposed Class II Disposal Wells and Surface Facilities;
- Clarified language regarding corrective action that must be taken for problematic wells identified in the area-of-review;
- Inclusion of the definition of a confining zone (the interval designated to protect USDWs), and standards for the review of a confining zone;
- Limitations or prohibition on disposal into certain formations;
- Increased cement to be placed during the construction or conversion of a Class II Disposal Well;
- Addition of site-specific reviews that may be required by the chief to address unique circumstances during construction of Class II Disposal Wells and Surface Facilities. Ohio law allows the Chief to attach terms and conditions to a permit; these revisions specify the terms and conditions that may be added on a site-specific basic and are a codification of current practices;
- A clarified and expanded public notice process that establishes time frames, standing and clear requirements for public notice, public meetings, and deficiencies in a permit application;
- Detailed review timelines for Division processing of a permit application;
- Detailed permitting, construction, and operational requirements for a Surface Facility. The current rule includes approximately two standardless sentences that govern this critical component of the disposal process;
- Enhanced standards, requirements, and Division enforcement authority regarding seismic events near Class II Disposal Wells;
- New requirement for water wells within 1500 feet of new Class II Disposal wells and surface facilities to be baseline tested;
- Detailed process for modifying an application during and after construction of Class II Disposal Wells and Surface Facilities;

- Addition of requirements governing the issuance of an order that allows a Class II Disposal Well to begin injection, as specifically required pursuant to 1509.22 of the Ohio Revised Code;
- Enhanced testing of Class II Disposal Wells and Surface Facilities during construction, including a verification of operations before commencement of injection;
- Enhanced testing and inspections Class II Disposal Wells and Surface Facilities during operation, including regular testing, inspections, and pressure monitoring;
- Editing of rules governing annular disposal to prohibit the permitting a new annular disposal wells;
- Requirements for submission of a decommissioning plan before plugging and reclaiming Class II Disposal Wells and Surface Facilities.

3. **Please list the Ohio statute(s) that authorize the agency, board or commission to adopt the rule(s) and the statute(s) that amplify that authority.**

   Authority: 1509.03, 1509.10, 1509.12, 1509.13, 1509.15, 1509.22, 1509.23

   Amplifies:1509.01, 1509.02, 1509.03, 1509.10, 1509.12, 1509.13, 1509.15, 1509.22

4. **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.
   The U.S. EPA delegated primacy of Class II Disposal Wells to Ohio in 1983 and the Agency has successfully regulated the program since that time. In brief, the U.S. EPA requires that Ohio's laws and rules protect all Underground Sources of Drinking Water. Ohio's laws, rules, and program operation meet or exceed federal requirements. The U.S. EPA has reviewed this draft rule, provided comments, and changes were made based on this feedback.

5. **If the regulation includes provisions not specifically required by the federal government, please explain the rationale for exceeding the federal requirement.**
   Ohio's underground injection control laws, rules, and program operation address state-specific conditions and go into greater detail than federal counterparts. This allows for greater clarity and operational understanding for Ohio companies, and most importantly, adopts provisions that address specific geologic conditions unique to our state. Additionally, delegated authority from the U.S. EPA only applies to the Class II Disposal Well; the regulation of surface facilities is a state-only regulation that is in the public interest to protect public health, safety, and the environment.

6. **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 regulation of oil and gas activity in Ohio is in the public interest as it protects public health, safety, and the environment while also providing reasonable standards for the regulated industry to operate within. Ohio Revised Code 1509.02 grants the Division sole and exclusive authority to regulate the permitting, location, and spacing of oil and gas wells and production operations within the state, including Class II Disposal wells and surface facilities. The statute states that the regulation of oil and gas activities is a matter of general statewide interest that requires uniform statewide regulation. The Agency is striving to develop rules and regulation that provide clarity and certainty to the regulated community, while providing maximum protection for public health, safety, and the environment.

   Specifically, the regulation of Class II Disposal Wells and Surface Facilities focuses on one of the most critical missions of the Division: the protection of groundwater. These rules are written to ensure maximum protections of underground sources of drinking water and surface water. Additionally, the enhancements presented in this rule are necessitated by changes since the rule was last updated including, but not limited to standard industry practices, the size and volume of Class II Disposal Wells and Surface Facilities now operating in Ohio, and a need to respond to specific situations that have occurred in Ohio.

7. **How will the Agency measure the success of this regulation in terms of outputs and/or outcomes?**
   The primary measure of success is the continued protection of Ohioans' healthy, safety, and the environment. The rules included in this filing include standards regarding the issuances of permits and the submission of information. The Division monitors all these areas for compliance and takes corrective action when necessary. The Division strives to achieve compliance with all applicable rule and law before taking any punitive actions as Ohio law and rule is written to allow operators to develop oil and gas resources in a manner that will not negatively impact public health, safety, and the environment.

8. **Are any of the proposed rules contained in this rule package being submitted pursuant to R.C. 101.352, 101.353, 106.032, 121.93, or 121.931?**
   If yes, please specify the rule number(s), the specific R.C. section requiring this submission, and a detailed explanation.
   No.

Development of the Regulation

9. **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.

The Division held numerous affected party meetings with members of the regulated community who would be directly impacted by these rules over the course of several months. These meetings were held in-person and virtually. On June 11, 2021 the rule was made available for interested party review via a posting on the Agency's website. Additionally, the notice of posting was emailed to the receipts on the attached list.

10. **What input was provided by the stakeholders, and how did that input affect the draft regulation being proposed by the Agency?**
    Valuable information was provided during both the affected party meetings and interested party comment period. Comments and proposed edits were considered by the Agency and in some cases, edits to the rule were appropriate and made accordingly. As stated earlier, the Division's primacy agreement with U.S. EPA requires that agency to review our rules; this review resulted in a few direct edits to the rule.

11. **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 Division relied upon geologists and engineers, both from the state and federal government and the regulated community, when drafting these rules.

12. **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?**

    The Division considered alternatives to many provisions in the chapter, but arrived at the current draft after soliciting input, reviewing that input, discussions with affected and interested parties and getting approval by U.S. EPA.

13. **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 Division strives to write performance-based regulations and considers many of these to be performance-based.

14. **What measures did the Agency take to ensure that this regulation does not duplicate an existing Ohio regulation?**
    The Agency has sole and exclusive authority to regulate oil and gas activity (Revised Code1509.02), so the activities regulated by these rules are not regulated by any other agency.

15. **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.**
    The agency has communicated with the regulated community in the development of this rule

and will continue outreach, including web postings and mailings to ensure the modifications made will be shared with regulated entities. Additionally, agency staff will be prepared to answer questions and field inspectors will be trained in the new requirements.

Adverse Impact to Business

16. 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; and

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

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.

The scope of the impacted business community is any operator of Class II Disposal Wells and Surface Facilities in Ohio. The rule does not include any additional fees nor fines. The adverse impact can be quantified in increased costs and employer time to comply with certain requirements of the rule.

As this draft rule is a near-total rewrite and reorganization of the current rule, it is difficult to identify all adverse impacts to the business community and to establish a specific cost for each one. However, through months of affected party and interested party discussions, a consensus was reached that the additional protections offered to public health, safety, and the environment outweigh the increased costs in time and money that might accompany achieving compliance with this rule.

Some of the adverse impacts associated with this draft include:

- Increased setbacks, siting criteria, and volume limitations based on proposed formations reduce areas or injection zones that can be used for Class II Disposal Wells and Surface Facilities or require additional measures to be installed if sited in sensitive areas;
- Increased time to prepare information to be reviewed as part of a permit application;
- Increased distances for the area-of-review might result in more corrective actions that are required to be completed;
- Applicants will be required to provide notice of an application by either hand delivery or certified mail to owners/operators of wells within the area of review, property owners within 1,500 feet, and certain elected officials.

- Sampling of water wells within 1,500 feet of the proposed Class II Disposal Well will now be required. Sampling of an individual well can cost approximately $1,200;
- Enhanced well construction/conversion standards will require additional costs in materials such as cement. These costs are estimated to be in hundreds of dollars; and
- Increased testing of Class II Disposal Wells and Surface Facilities.

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

The regulation of oil and gas activity in Ohio is in the public interest as it protects public health, safety, and the environment while also providing reasonable standards for the regulated industry to operate within. Through months of affected party and interested party discussions, a consensus was reached that the additional protections offered to public health, safety, and the environment outweigh the increased costs in time and money that might accompany achieving compliance with this rule. Additionally, the Agency's sole and exclusive authority to regulate the oil and gas industry in Ohio necessitates the need for these updated rules.

Regulatory Flexibility

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

Protection of human health, safety, and the environment is the intent of the statute and rule, so any exemptions would not be appropriate. Additionally, Ohio's primacy agreement with U.S. EPA requires protection of underground sources of drinking water. The rules do provide opportunities for the Chief to make modifications based on site-specific conditions and situations.

19. 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?

ORC contains a process that ensures the Division make reasonable attempts to contact the person for outstanding paperwork violations. Through that process, a person has an opportunity to correct paperwork violations. An applicant may also request an extension for submission of documents up to 60 days pursuant to Ohio Revised Code 1509.04.

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

Division staff are available to assist with compliance of the regulation for all

businesses. Additionally, there will be resources available on the Division's website that explains the rules.

Outreach Contacts

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1501:9-3-01 **Definitions.**

As used in chapter 1501:9-3 of the Administrative Code:

(A) "Amendment" means a written authorization of the chief to revise an operating surface facility including any of the following:

(1) Any substantial alteration to the design or operation of the surface facility;

(2) Alteration to the design or operation of the surface facility that impacts the ability of the surface facility to safely operate, protect public health and safety, or minimize damage to natural resources; or

(3) Any alteration that results in an adjustment of the containment volume.

(B) "Applicant' means a person that submits an application for a permit to drill a class II disposal well, submits an application to convert a well to a class II disposal well, or submits an application for a permit authorizing injection into a class II disposal well.

(C) "Annular disposal" means the method approved by the division by which brine is disposed of in any annular space of a producing well.

(D) "Annular fluid" means a mixture of freshwater and corrosion inhibitor liquid placed in an annular space. "Annular fluid" does not include brine.

(E) "Area of review" means an area, established in rule 1501:9-3-05 of the Administrative Code, surrounding an existing or proposed class II disposal well that is analyzed by the division in a process that consists of reviewing artificial penetrations of the injection zone, geological conditions, and potential migration pathways.

(F) "Barrel" means a quantity of liquid equal to forty-two U.S. gallons.

(G) "Brine" has the same meaning as in section 1509.01 of the Revised Code.

(H) "Chief" means the chief of the division of oil and gas resources management, or the chief's designee.

(I) "Class II disposal well" means a well permitted under sections 1509.06 or 1509.22 of the Revised Code to inject brine and other waste substances as a means of disposal.

(J) "Class II disposal well owner" means the person who owns a class II disposal well.

(K) "Confining zone" means a geologic formation, group of formations, or part of a formation that is capable of limiting fluid movement above an injection zone.

(L) "Construction" means any alteration of the earth, including soil, sediment, rock, sand,

gravel, and organic material; or the assemblage or initiation of assemblage of any infrastructure, building, structure, fixtures, or portions thereof for the purpose of creating a class II disposal well or a class II disposal well and surface facility. "Construction" does not include the short-term storage of equipment or materials; activities to protect sensitive areas or habitats; seasonal tree and vegetative cutting; or any activity that does not exceed one acre of earth disturbance conducted for the preparation of a class II disposal well or a class II disposal well and surface facility.

(M) "Containment" means primary containment, secondary containment, or both.

(N) "Corrective action" means a proposed action to plug or modify an existing well that is located within the area of review of a proposed or existing class II disposal well for which an application has been submitted.

(O) "Decommissioning plan" means a plan that contains all of the following:

(1) A schedule to decommission a class II disposal well and surface facility;

(2) A description of the closure and remediation of the site associated class II disposal well and surface facility; and

(3) A description of the removal and proposed final disposition of all brine and other waste substances from class II disposal well and surface facility.

(P) "Division" means the division of oil and gas resources management, Ohio department of natural resources.

(Q) "Filtration" means a process to filter brine and other waste substances using filter socks, cartridges, centrifuges, settling or other similar processes.

(R) "Geological investigation" means an investigation that may include, but is not limited to:

(1) Seismic survey(s), including a processed seismic profile with a report detailing interpretations; a map or maps illustrating line location, relevant map data, and geographical divisions; and any other applicable information or materials that illustrate the investigation of potential faulting in the immediate vicinity of the proposed injection well;

(2) Geological descriptions of the injection zone, confining zone, and USDWs including regional depositional environment, regional structure regime, tectonic history and other applicable information;

(3) Descriptions and interpretations of available core data of injection zone and confining zones, including a description of zone(s), geomechanics of zone(s), indication of faulting or fracturing and other applicable information;

(4) Interpretation of available geophysical logs of the injection zone and confining zone including the general description of each log and the formation characteristics measured by each log and an analysis of the zones suitability for injection and confinement; and

(5) Maps and diagrams with accompanying discussions including cross sections, fence diagrams, structure maps and isopach maps.

(S) "Manifest" means a shipping document that describes the brine or other waste substances when it is transported by any means other than a pipeline and contains a description of the brine or other waste substances, the name of the person that generated the brine or other waste substances, the volume of brine or other waste substances, and the destination of the brine or other waste substances.

(T) "Material modification" means any of the following that occurs during construction;

(1) Any substantial alteration to the design or construction of a surface facility;

(2) Alteration to the design or construction of the surface facility that impacts the ability of the surface facility to safely operate, protect public health and safety, or minimize damage to natural resources; or

(3) Any alteration that results in an adjustment of the of the containment volume.

(U) "Mechanical integrity" means a class II disposal well that satisfies both of the following:

(1) The well has no significant leak in the casing, tubing, or packer; and

(2) There is no significant movement of brine or other waste substances from the well into an underground source of drinking water through vertical channels adjacent to injection well bore.

(V) "Mechanical integrity test part 1" means a test to ensure a well has no significant leak in the casing, tubing, or packer by pressurizing the annular fluid in the annular space between the tubing and the casing immediately on the outside of the tubing to an amount equal to one hundred and ten per cent of the maximum allowable injection pressure as determined in rule 1501:9-3-07 of the Administrative Code or to a pressure of three hundred pounds per square inch (psi), whichever is greater, for a duration of fifteen minutes with no more than five per cent decline in pressure unless otherwise approved by the chief.

(W) "Mechanical integrity test part 2" means a test to ensure there is no significant movement of brine or other waste substances from the well into an underground source of drinking water through vertical channels adjacent to injection well bore using one or more of the following methods:

(1) Cement evaluation logs;

(2) Tracer surveys;

(3) Noise logs;

(4) Temperature surveys;

(5) Casing inspection log;

(6) Caliper log; or

(7) Any other logs or tests considered effective by the chief.

(X) "Notice of application" means a notification provided by the division that an application for a permit for a class II disposal well or a class II disposal well and surface facility has been submitted to the division, which includes all of the following information as applicable:

(1) The name and address of the applicant;

(2) The township, county, and address or coordinates of the class II disposal well or class II disposal well and surface facility;

(3) The phone number, website address, and mailing address of the division;

(4) The name, title, email, and telephone number of the applicant's contact;

(5) A statement that the application may be obtained by visiting the website of the division, contacting the applicant or contacting the division;

(6) The proposed estimated depth of the class II disposal well and the proposed injection zone.

(7) A statement to all persons required to be notified pursuant to this chapter that the division will consider all written comments received by the division within thirty calendar days of the posting of the public notice on the division's website;

(8) A statement to an owner of real property, who receives the notice of application pursuant to this chapter, that within five business days of receipt of the notice of application, the owner of real property is required to provide notice of application to each residence in an occupied dwelling that is located on the owner's parcel of real property; and

(9) A statement of the applicant's responsibility to test water wells within the

notification radius prior to commencement of permitted activities pursuant to this chapter.

(Y) "Oil and gas waste facility" means all buildings, structures, portions of a building or structure, equipment, pipelines, and other fixtures at a location for the purpose of storing, recycling, treating, processing, or disposing of brine or other waste substances associated with the exploration, development, well stimulation, production operations, or plugging of oil and gas resources authorized under Chapter 1509 of the Revised Code, section 1571 of the Revised Code, division 1501:9 of the Administrative Code, or conditions of a permit issued under those authorities. "Oil and gas waste facility" does not include any of the following:

(1) Operations authorized by a permit issued under section 1509.06 of the Revised Code, including associated exploration, development, well stimulation, production operations, or plugging of oil and gas resources that take place at a well site and only serve operations at that well site;

(2) Operations authorized by a permit issued under section 1509.21 of the Revised Code;

(3) Storing of brine or other waste substances in a vehicle, vessel, or container at locations for less than twenty-four hours for which a manifest has been generated in accordance with paragraph (B) of rule 1501:9-6-08 of the Administrative Code; or

(4) A facility used by a government authority to store brine used solely for ice and/or dust control in accordance with an approved brine spreading resolution subject to section 1509.226 of the Revised Code

(Z) "Other waste substances" means any nonpotable liquid resulting, obtained, or produced from the exploration, drilling, stimulation, testing, workover, plugging of an oil and gas well or production of oil or gas. "Other waste substances" includes water that is mixed with brine as a result of an unplanned release and precipitation captured in a containment regulated under Chapter 1509 of the Revised Code and any rules adopted under it or Chapter 1571 of the Revised Code. "Other waste substances" does not include wastes associated with gas processing facilities or pipelines not regulated under Chapter 1509 of the Revised Code and any rules adopted under it or Chapter 1571 of the Revised Code.

(AA) "Permittee" means a person who has been issued a class II disposal well permit under this rule.

(BB) "Person" has the same meaning as in section 1509.01 of the Revised Code.

(CC) "Pipeline" means pipe, associated appurtenances, and conveyances that are installed or used for the transportation of brine or other waste substances associated with the exploration, development, well stimulation, production operations, or plugging of

oil and gas wells. "Pipeline" also means pipe, appurtenances, and conveyances used to transport brine to a class II disposal well. "Pipeline" does not include process piping.

(DD) "Positive displacement test" means a test to demonstrate mechanical integrity of an annular disposal well by applying gas pressure to the annular space utilized for disposal at a pressure determined by the following formula: surface casing depth X 0.433 psi/ft + 50 psi.

(EE) "Preliminary site review" means a site visit conducted by the chief that may include the applicant or the applicant’s designee to review the location of a proposed class II disposal well or class II disposal well and surface facility.

(FF) "Pressure fall-off test" means a test to collect fluid-flow data in a particular zone or zones by injecting brine in a class II disposal well for a period of time and then measuring pressure changes over a period of time that the class II disposal well is shut-in.

(GG) "Primary containment" means a structure or equipment that is or will be in direct contact with brine or with other waste substances to prevent a release of the brine or other waste substance, including but not limited to a tank, vessel, dike, pipe, liner, vault, or other equipment.

(HH) "Process piping" or "piping" means pipe, associated appurtenances, and conveyances associated with storing brine and other waste substances at a surface facility for which a permit has been issued pursuant to rule 1501:9-3 of the Administrative Code.

(II) "Production operation" has the same meaning as in section 1509.01 of the Revised Code.

(JJ) "Professional surveyor" has the same meanings as in section 4733.01 of the Revised Code.

(KK) "Qualified person" means a person that has specific expertise and experience that meets common industry standards for performing specific testing and inspections to verify component and system integrity.

(LL) "Record" means information developed and maintained during the operation of a class II disposal well or surface facility. "Record" includes, but is not limited to logs, verification of integrity results, manifests, analytical testing results related to the manifests, standard operating procedures, and log of inspections.

(MM) "Secondary containment" means a structure, including but not limited to, vessel, berm, dike, pipe, liner, vault, curbing, drip pan, sump, or other equipment constructed or placed in a manner to temporarily contain a release of brine or other waste substance from primary containment and to prevent the brine or other waste

substance from coming into contact with the ground water or the land, or to be discharged or likely to be discharged into surface water.

(NN) "Spinner survey" means a logging method that uses a small propeller turned by fluid movement to determine fluid flow associated with a formation.

(OO) "Standard annular pressure test" means a test to demonstrate the mechanical integrity of a class II disposal well by applying pressure to the annulus between the tubing and casing equal to or greater than the maximum allowable injection pressure.

(PP) "Storing" or "store" means to accumulate or collect brine or other waste substances.

(QQ) "Subject tract" means a tract(s) upon which a person proposes to and has the legal right to drill, reopen, deepen, plug back, or convert a well for the injection of brine for the class II disposal well.

(RR) "Surface facility" means all buildings, structures, portions of a building or structure, equipment, primary containment, secondary containment, process piping, and other fixtures at a location that is solely connected to a class II disposal well for the purposes of filtering, storing, or filtering and storing brine prior to injection and the facility has a total nominal storage volume of 10,000 barrels or less.

(SS) "Tracer Survey" means a survey by which a radioactive tracer is injected into a wellbore and the point of placement and movement of the tracer is recorded by a gamma ray instrument.

(TT) "Verification of integrity" means the testing or inspection in accordance with industry standards of all primary containment, secondary containment, equipment, piping systems, and other appurtenances at the class II disposal well or surface facility , that are performed by a qualified person and are of the appropriate type for the component and system being tested or inspected.

(UU) "Well" has the same meaning as in section 1509.01 of the Revised Code.

1501:9-3-02 **Exceptions.**

(A) This chapter does not apply to a well for the purpose of injecting gas or air, enhanced recovery wells permitted under section 1509.21 of the Revised Code, natural or artificial brine wells, wells drilled into gas storage reservoirs, or wells for the exploration for or extraction of minerals or energy permitted under section 1509.221 of the Revised Code.

1501:9-3-03 **General Provisions.**

(A) Brine and other waste substances at a class II disposal well or at a surface facility may only be stored, transported, and disposed of in accordance with Chapter 1509 of the Revised Code and rules adopted under it.

(B) Brine and other waste substances at a class II disposal well or at a surface facility may not be allowed to migrate into an underground source of drinking water.

(C) Brine and other waste substances from a class II disposal well may not be injected into or allowed to migrate into an underground formation that is not approved for injection in the permit issued by the division.

(D) If any process occurs at a surface facility other than storage, settling in a tank, or filtration, the facility is an oil gas waste facility. If a surface facility is modified or is proposed to be modified to include any process other than storage, settling in a tank, or filtration or is connected to an oil and gas waste facility regulated under section 1509.22 of the Revised Code, the person operating the surface facility must obtain an chief's order to operate an oil and gas waste facility. A surface facility not directly connected to a class II disposal well is an oil and gas waste facility.

(E) Brine and other waste substances may not be injected into a class II disposal well or a well without a permit to inject issued by the chief. In order to evaluate a well for the potential for injection, a person may submit in writing to the chief a plan requesting authorization to inject for a period not to exceed forty-eight hours. The chief will review the plan and either accept or reject it in writing. If the chief accepts the plan, the chief may specify any terms or conditions that apply to the test.

(F) Surface Facility

(1) If after the effective date of this rule, a surface facility is proposed to be amended so that the resulting total nominal storage volume is 10,001 barrels or greater, the person operating the surface facility must apply for a permit to operate as an oil and gas waste facility, however only the amended portion must meet the oil and gas waste facility standards.

(2) A surface facility with a total nominal storage volume of 10,001 barrels or greater in operation on the effective date of this rule may continue to operate without an oil and gas waste facility permit, unless the facility is proposed to be amended, then paragraph (F) (1) of this rule would apply.

1501:9-3-04 **Surface location and siting criteria.**

(A) On and after the effective date of this rule, all of the following apply to a new class II disposal well, a well proposed to be converted to a class II disposal well, and a surface facility:

(1) No portion of a class II disposal well or of a surface facility may be located within the boundary of a flood hazard area as delineated on the "National Flood Insurance Rate Map" unless the applicant meets all applicable floodplain regulations.

(2) No portion of a class II disposal well or a surface facility may be located nearer than five hundred feet from the boundary of the subject tract.

(a) Paragraph (A)(2) of this rule does not apply if the class II disposal well or the surface facility, as applicable, is proposed to be on a site that is zoned industrial.

(3) No portion of a class II disposal well or a surface facility may be located within one thousand feet of and within any of the following:

(a) The five-year time of travel associated with a public drinking water supply, as delineated or endorsed under the "Source Water Assessment and Protection Program"; and

(b) The emergency management zone of a public water system intake.

(4) No portion of a class II disposal well or a surface facility may be located within seven-hundred and fifty feet of an occupied private dwelling or a public building that may be used as a place of assembly, education, entertainment, lodging, or occupancy by the public. However, the owner or the person with legal authority for the private dwelling or public building may consent in writing to a location of the class II disposal well or the surface facility to a distance less than seven hundred and fifty feet if the applicant submits the written consent on a form prescribed by the chief with the application.

(5) No portion of a class II disposal well or a surface facility boundary may be located in or within one hundred feet of a wetland or any surface waters that are waters of the state as defined in section 1509.01 of the Revised Code.

(6) No portion of a class II disposal well or a surface facility may be located within one hundred feet of ponds, developed springs, and water wells.

(7) Except as provided in paragraph (8) of this rule, a pipeline connecting a class II disposal well to a surface facility shall not be located:

(a) In or within one thousand feet of the five-year time of travel associated with a public drinking water supply as delineated or endorsed under the

"Source Water Assessment and Protection Program," or the emergency management zone of a public water system intake;

(b) In or within one hundred feet of a wetland or any surface waters that are waters of the state as defined in section 1509.01 of the Revised Code; and

(c) Within one hundred feet of ponds, developed springs, and water wells.

(8) Pipelines proposed to be installed within the distances established in paragraphs (7)(b) and (7)(c) of this rule must implement additional requirements to be approved by the chief. These requirements include, but are not limited to, double encasement, continuous monitoring, testing frequency, and valving.

1501:9-3-05 Permit to construct a class II disposal well and a surface facility.

This rule applies to a new permit to construct a class II disposal well and a surface facility, a new permit to construct a class II disposal well, a new permit to convert a well to a class II disposal well and construct a surface facility, or a new permit to convert a well to a class II disposal well. A class II disposal well and a surface facility shall be designed, constructed, and operated in a manner that protects public health and safety and the environment. Compliance with this rule does not eliminate the requirement that a person comply with any other applicable laws.

(A) Area of review.

(1) The division will conduct an area of review evaluation for a proposed class II disposal well upon receipt of an application for a permit to drill, reopen, deepen, plug back, or convert a well for brine disposal. The area of review is determined in accordance with one of the following:

(a) The area of review for wells in which disposal is proposed to be less than an average volume of two hundred barrels per day per year will be the area circumscribed by a one-half mile distance from the center of the wellbore along its entire length.

(b) The area of review for wells in which disposal is proposed to be greater than an average volume of two hundred barrels but less than 1,000 barrels per day per year will be the area circumscribed by a one-mile distance from the center of the wellbore along its entire length.

(c) The area of review for wells in which disposal is proposed to be greater than an average volume of 1,000 barrels per day per year, will be the area circumscribed by a two-mile distance from the center of the wellbore along its entire length.

(d) An area of review other than one established in paragraphs (A) (1), (A) (2), or (A) (3) of this rule may be designated by the chief.

(2) Wells in the area of review and all of available records for each well will be reviewed by the division and the applicant. A well in the area of review needs corrective action in any of the following circumstances:

(a) The wellbore penetrates the proposed injection zone or the wellbore has a total depth that is within 500 vertical feet of the top of the injection zone and was plugged in a manner not in accordance with Chapter 1501:9-11 of the Administrative Code;

(b) The wellbore penetrates the proposed injection zone or a wellbore with a total depth that is within 500 feet of the top of the injection zone is plugged with clay;

(c) The wellbore penetrates the proposed injection zone and the wellbore does not have cement on the back side of the production casing to at least 500 feet above the proposed injection zone;

(d) The wellbore has limited or no records;

(e) The wellbore penetrates the proposed injection zone or the wellbore has a total depth that is within 500 vertical feet of the of the top of injection zone and the wellbore is constructed with the production casing set with a packer; or

(f) Any other circumstance identified by the division during the record review.

(3) The applicant shall develop a list of proposed corrective actions for each well that will need corrective action. The division will review the list of proposed corrective actions, and determine which of those and any others are to be completed in order to prevent the movement of brine or other waste substances out of the permitted injection zone. Corrective action shall be completed prior to the issuance of a permit to inject.

(B) All of the following apply to the construction of a class II disposal well or conversion of a well to a class II disposal well:

(1) The division may prohibit injection into certain formations on a site-specific basis based on circumstances that may impact public health, safety, or the environment including, but not limited, evidence of seismicity, migration of brine or other waste substances out of an injection zone, or other similar factors.

(2) For a permit to drill a new class II disposal well or to convert a well to a class II disposal well, in which the injection formation will be located in a formation that has a producing well within the area of review either of the following apply:

(a) The average disposal volume cannot exceed 200 barrels per day per year; or

(b) The class II disposal well owner must own each producing well in the area of review as long as the owner operates the class II disposal well.

(3) For a permit to drill a new class II disposal well or to convert a well to a class II disposal well in the devonian shale formation or any formation above, the average disposal volume cannot exceed 200 barrels per day per year.

(4) A person may not submit an application to convert a well to a class II disposal

well if the operator of the well or the proposed well is not in compliance with chapter 1509 of the Revised Code or division 1501:9 of the Administrative Code.

(C) An application for a permit includes the following:

(1) A complete application on a form(s) prescribed by the chief.

(2) Information concerning the proposed class II disposal well including:

(a) The name, description, and depth of the geological zones or formations into which injection is proposed;

(b) For a well proposed to be converted to a class II disposal well, an accurate driller's log, a mud log, any geophysical or electric log, and any testing data on the well, if available;

(c) The designation of the well by lease name and number and for conversion applications the API number;

(d) The names and addresses of all owners or operators of record of wells or permitted wells within the area of review'

(e) The name, depth, thickness, areal extents, and geological information concerning the confining zone or zones in the area of review of the proposed well, which may include the lithology, direct historical evidence, permeability, porosity, and other available geologic data that substantiates a zone’s ability to confine brine or other waste substances to the permitted injection zone;

(f) A detailed description of the following:

(i) The well construction data that includes information on the casing and cementing if an existing well is to be converted, or the casing and cementing program proposed for a new well that complies with the well construction requirements established in rule 1501:9-1-08 of the Administrative Code;

(ii) The proposed method for injection that may include one or both of the following: open hole or perforations;

(iii) The proposed depth of the tubing and packer; and

(iv) The proposed stimulation program.

(g) The list of proposed corrective action of wells penetrating the proposed confining zones or injection formations within the area of review as

identified in paragraph (A) of this rule;

(h) A schematic drawing that includes all of the following:

(i) Bore-hole diameter(s) and depth(s);

(ii) Outside diameter of each casing(s);

(iii) Proposed or existing placement of cement;

(iv) Location of any casing hardware;

(v) Packer depth;

(vi) Perforations/open hole;

(vii) Total depth;

(viii) Confining zone(s);

(ix) Injection zone(s); and

(x) Deepest underground source(s) of drinking water, if mapped.

(i) The proposed average volume of brine in barrels to be injected per day per year into the proposed class II disposal well, and the proposed method that will be used to measure and record the actual amount of brine injected into the well;

(j) The proposed method that will be used to continually measure and record daily injection pressures;

(k) The proposed method to continuously monitor and to record the positive pressure in the annulus between production casing and the injection tubing;

(3) Description. A description of the proposed operations at the surface facility that includes the following, if applicable:

(a) A summary of the design flow;

(b) A summary of all containment including primary containment and secondary containment. The summary will include the volume, type, contents, and location of each primary containment. The summary will also include the calculations for each secondary containment volume;

(c) Mechanical processes;

(d) Discharge prevention measures from storage vessels and secondary containment, such as overfill protection, shut-off valves, and leak detection systems;

(e) Leak detection method for pipelines;

(f) Procedures for loading, unloading, transferring, and other means of handling of brine or other waste substances;

(g) Methods of metering and tracking the system throughput, including details on how brine will be tracked by those subject to fee(s) pursuant to division (H) of section 1509.22 of the Revised Code;

(h) Material specifications, that include, but are not limited to storage vessels, containment systems, piping, pipelines, pumps, valves, meters;

(i) A statement attesting the applicant has the right to install and maintain all pipelines;

(j) Design and construction drawings that include all of the following:

(i) A title page that contains the name of the applicant; emergency contact information to be used during construction; the county, township, and section or lot number where the proposed surface facility will be located; coordinates of the intersection of the centerline of the entrance apron at the public right-of-way using latitude and longitude, in a format of decimal degrees, to a minimum of six decimal places; and a sheet index;

(ii) A plan sheet consisting of the most recent color orthorectified aerial image known to the applicant at the time of design with pixels no larger than one foot showing the location of the proposed surface facility;

(iii) A plan sheet sealed by a professional surveyor showing the location of the proposed surface facility and the control points used to generate the map;

(iv) The scale in feet, legend, graphical scale, and north arrow;

(v) A general layout, plan views, elevations, sections, and supplementary views that in conjunction with the specifications provide the working information related to all aspects of the proposed construction, which also locate all elements horizontally in relation to the North American Datum of 1983 and vertically in relation to the North American Vertical Datum 1988;

(vi) The proposed and existing contours with an intermediate contour interval not greater than two feet and an index not greater than ten feet;

(vii) All buildings and improvements larger than 120 square feet including supporting drawings such as, electrical, plumbing, structural, and life safety;

(viii) All process piping including valves, valve locations, and types that will be used for storage;

(ix) All primary containment and secondary containment systems proposed and their capacities;

(x) All pipelines that will connect the surface facility to the class II disposal well;

(xi) All springs, wetlands, streams, lakes, rivers, ponds, and creeks which may be identified using reasonably available public resources and a field review, within two hundred feet of the storage facility;

(xii) Surface and underground mines, which may be determined using information available from the Ohio department of natural resources and other publicly available or readily accessible sources, that may affect design and performance of the proposed surface facility;

(xiii) All risk zones and hazard areas delineated on the “National Flood Insurance Rate Map” within one hundred feet of the proposed surface facility;

(xiv) Plugged wells, producing wells, idle and orphaned, and class II disposal wells that are located within one hundred feet of the storage facility. The information regarding the wells may be determined using information available from the Ohio department of natural resources and other publicly available or readily accessible sources;

(xv) All areas within one thousand five hundred feet of the proposed surface facility that are located within the five-year time of travel associated with a public drinking water supply, as delineated or endorsed under the "Source Water Assessment and Protection Program";

(xvi) All areas within one thousand five hundred feet of the proposed

surface facility that are located within the emergency management zone of a public water system intake; and

(xvii) Boundaries of parcels of land, existing occupied and unoccupied structures, roadways, and existing utilities known to the applicant at the time of the design that are located within two hundred feet of the proposed surface facility.

(k) After a preoperational site review and for good cause, the chief may require any of the following as part of the permit application:

(i) Emergency release conveyance map. An emergency release conveyance map includes all of the following on a separate drawing sheet:

(a) Locations downslope of the proposed surface facility and any related pipelines where response resources may be deployed for the purposes of containment in the event of an emergency release using latitude and longitude, in a format of decimal degrees, to a minimum of six significant decimal places;

(b) Flow path and identification of nearest receiving streams, rivers, watercourses, ponds, lakes, or other bodies of water where brine or other waste substances may migrate from the proposed facility; and

(c) Pipes, ditches, and other conveyances, and hydraulic control structures identified in the storm water hydraulic report and in the sediment and erosion control plan.

(ii) Geotechnical report. A geotechnical report specific to the location of the proposed surface facility that describes the proposed facility geotechnical site conditions, design considerations that address the geotechnical conditions, and construction requirements for the proposed facility that address the geotechnical conditions and discloses the results of a surface and subsurface investigation of the proposed surface facility site. In addition, a report includes all of the following:

(a) An analysis of slope stability, bearing capacity, and settlements that have the potential to negatively impact the performance of the proposed surface facility site;

(b) Geotechnical borings or other geotechnical engineering standard investigative means, of sufficient depth and quantity to substantiate the design;

(c) An evaluation of all existing infrastructure potentially related to geotechnical considerations located within the proposed oil and gas waste facility boundary that will be used, affected or incorporated in the proposed surface facility;

(d) A summary of all subsurface exploration data specifically relevant to the geotechnical investigation and interpretation as it pertains to the design and construction of the proposed oil and gas waste facility, including subsurface soil profile, exploration logs, laboratory or in situ test results, and elevation of saturated soils at the time of exploration;

(e) An interpretation and analysis of the data required for the geotechnical report;

(f) An explanation of the geotechnical design constraints;

(g) Cross-sections through borings, critical slopes, and impacted infrastructure used in geotechnical calculations;

(h) The factor of safety for slope stability not less than 1.5 and bearing capacity not less than 3.0; and

(i) Documents showing calculations used to determine the factor of safety and a detailed explanation of each assumption and reference used in the calculations.

(iii) Sediment and erosion control plan. A sediment and erosion control plan for the proposed surface facility that describes procedures to minimize the discharge of construction related sediment to any area outside of the proposed surface facility. A plan includes all of the following:

(a) Sediment and erosion controls consistent with generally accepted engineering design criteria and controls that comply with the manufacturer's specifications;

(b) A sediment basin or sediment trap if the proposed surface facility is within or includes a total contributing drainage area that is greater than five acres in size. The minimum capacity of the sediment basin or sediment trap shall be one hundred seventeen cubic yards and designed in accordance with the "Ohio Department of Natural Resources Rainwater and Land Development Manual" as defined in Chapter 1501:9-12 of the Administrative Code;

(c) An identification of the location of each outlet of all confined discrete conveyances that may leave the proposed surface facility;

(d) A delineation of contributing drainage area boundaries and size, measured in acres; and slope, length, and percent graded, that will be used to design the proposed sediment and erosion controls;

(e) A description of the soil stabilization measures, including vegetation, mulch, and other means of controlling erosion that will be used at the proposed surface facility. In addition, a schedule of the implementation of the soil stabilization measures will be included; and

(f) The applicant may submit a schedule that identifies alternate options for implementation of the erosion and sediment controls and measures, which also identifies when and under what criteria the alternate controls would be implemented.

(4) Map. The division may request the information in the electronic format if available. A map(s) prepared by an Ohio registered surveyor including the following:

(a) The subject tract of land upon which the proposed class II disposal well is to be located and the property lines with surface and mineral owner name(s) identified;

(b) The location of the proposed class II disposal well and any related pipelines on the subject tract of land established by a field survey showing the distances in feet from the proposed well and surface facility or oil and gas waste facility to the boundary lines of the subject tract and to the nearest permanent geographic subdivision boundaries;

(c) The proposed class II disposal well location designated by plane coordinates in accordance with Chapter 157 of the Revised Code. Coordinates may be established by map scale to the nearest fifty feet or by global positioning system (GPS);

(d) The location of all wells, which are within the distance of the area of review as determined under paragraph (A) of this rule. If a well or proposed well is within 200 feet of the proposed class II injection well, the distance will be marked on the map;

(e) The location of all buildings, public roads, railroads, and streams within

one thousand feet of the proposed well and their distances from the proposed well;

(f) The following is required to be placed in a conspicuous place on the map; the applicants name, well name, county, civil township, permanent geographic subdivisions (section, lot and/or tract) and surface elevation for the well location, USGS quadrangle name, the date the map was prepared, name of surveyor preparing the map and phone number, and map scale;

(g) If the proposed well is to be in an urbanized area, the map shall include the name of the urbanized area in addition to the original civil township name;

(h) An additional color map based on aerial photography at an appropriate scale identified on the map showing the location of the well, any related pipelines, any related oil and gas waste facilities, a related surface facility, access road, and a five hundred feet radius around the well location; and

(i) Coordinates of the intersection of the centerline of the entrance apron for the class II disposal well at the public right-of-way using latitude and longitude in a format of decimal degrees to a minimum of six decimal places.

(D) Class II disposal well testing or evaluations.

(1) The chief may require the following tests or evaluations of a proposed class II disposal well in any combination that the chief deems necessary:

(a) Submittal and implementation of a plan accepted by the chief for pressure fall-off testing;

(b) Submittal and implementation of a plan accepted by the chief for geological investigation of potential faulting or fracturing in the area of review for the proposed class II disposal well location;

(c) Submittal and implementation of a plan accepted by the chief for monitoring and reporting seismic activity;

(i) The plan will require the person operating a class II disposal well to directly notify the division within 24 hours if a seismic event of 1.5 or greater magnitude occurs within three miles of the well.

(d) Testing and recording the original bottom hole injection interval pressure;

(e) Gamma ray, compensated density-neutron, and resistivity geophysical

logging suite and any other log required by the chief on all newly drilled class II disposal wells. All logs shall be submitted to the division within sixty days of reaching total depth;

(f) Radioactive tracer or spinner survey;

(g) Submittal and implementation of a plan accepted by the chief for conducting a step-rate test; and

(h) Any other tests that the chief deems necessary. The applicant may request a meeting with the chief to discuss any test deemed necessary.

(2) If the chief requires the performance of tests or evaluations of a proposed class II disposal well, the applicant shall directly notify the appropriate inspector a minimum of twenty-four hours prior to performing the tests or evaluations. The chief may withhold authority to inject brine or other waste substances based upon the results of the tests or evaluations performed and may order the plugging of the well if deemed necessary.

(E) Review Procedure.

(1) General Review Procedure.

(a) After receipt of any submittal or notification of completeness for a procedure identified in figures 1, 2, and 3, the chief will review the submittal to determine if the submittal is compliant with the requirements of this rule within the times identified in figures 1, 2, and 3, as applicable. If after submittal, the chief identifies items that are necessary to ensure the submittal complies with the requirements of this rule, the chief will notify the applicant or permittee of the items that are necessary with a letter of deficiency. For any period of time specified in figures 1, 2, or 3, the date will be determined by the action of the division.

(b) The applicant or permittee may submit a revised submittal or revised portions of the submittal with an identification of all the revisions. The chief may require the resubmission of the entire submittal. If the applicant or permittee has not submitted the revised submittal or revised portions of the submittal in accordance with the times established in figure 1, 2, and 3, as applicable, the chief may issue an order denying the application. The chief will review the revised submittal or revised portions of the submittal in accordance with the times established in figures 1, 2, and 3, as applicable. The chief may approve a longer period of time for any of the revised submittal or site review times established in figures 1, 2, and 3, as applicable, upon written request by the applicant or permittee.

(c) If the applicant or permittee has not submitted documents compliant with this rule within three hundred sixty-five calendar days of issuance of the initial letter of deficiency, the application is terminated.

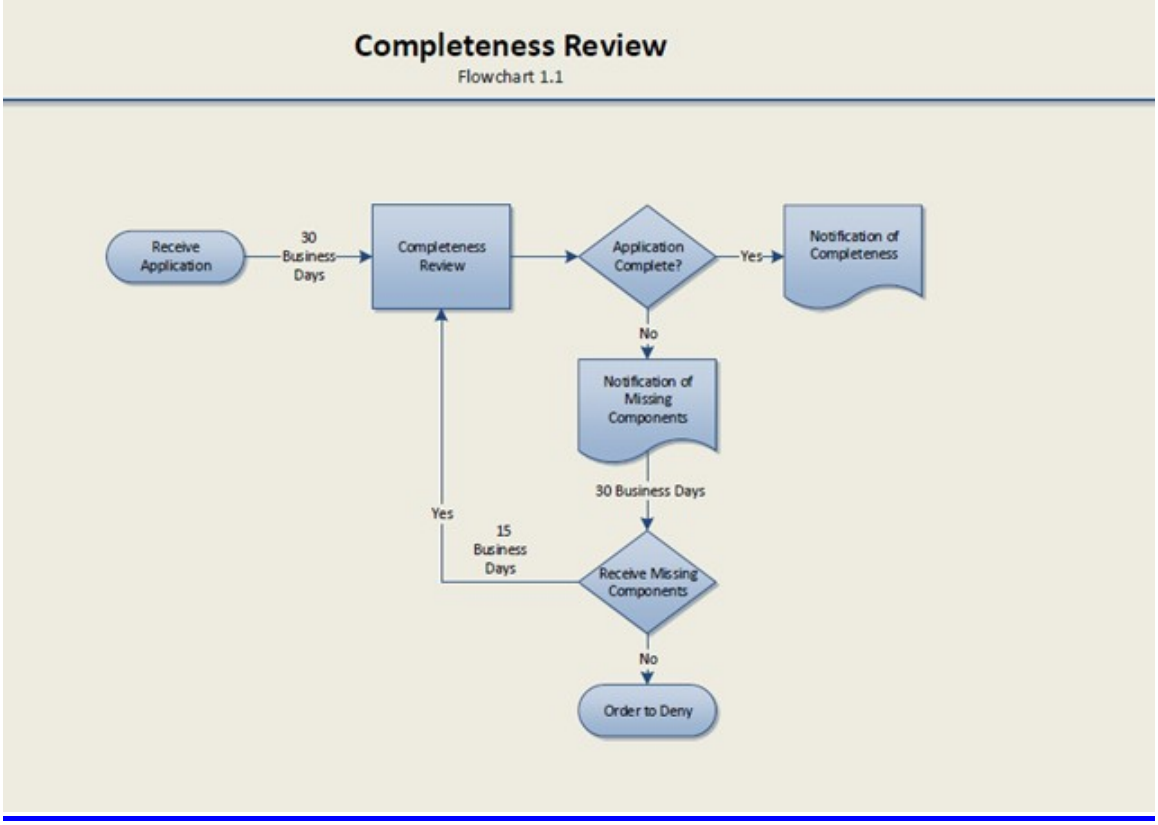
(d) After completing the review of all submittals, the chief will either issue a permit or deny the issuance of the permit by order.

(i) The chief may deny an application if the chief determines the applicant did not substantiate a zone's ability to confine brine or other waste substances to the permitted injection zone.

(e) The chief may require the applicant or permittee to submit additional information pertaining to the design and construction of the proposed or permitted class II disposal well and surface facility, that the chief determines is necessary for the protection of public health or safety or to prevent damage to the environment or is necessary to ensure compliance with the requirements of this rule.

(2) The chief will review the application for the class II disposal well and surface facility in accordance with figure 1 to determine if the application is a complete application. When the chief determines that the application is complete, the applicant will be notified in writing.

Figure 1



(3) Public Notice Process. The chief may combine multiple applications from the same applicant into a single public notice process.

(a) Within fifteen business days after the chief's determination that an application for a permit for a class II disposal well is ready for notice as established in figure 3, the division will provide public notice of the application by posting the application on the division's website.

(b) Within fifteen business days after the chief's determination that an application for a permit for a class II disposal well is ready for notice as established in figure 3, and the division provides the notice of application to the applicant, the applicant shall provide notice of application in each of the following formats:

(i) Provide by hand delivery or certified mail a notice of application to all of the following:

(a) All owners or operators of wells within the area of review identified in paragraph (A)(1) of this rule;

(b) The owner of each parcel of real property that is located

within one thousand five hundred feet of the proposed class II disposal well. For the purposes of determining the identity of each owner of a parcel of real property as of the date of the notice of application, the applicant may use the tax records of the county auditor of each county in which a parcel of real property is located; and

(c) The board of county commissioners and the board of township trustees or the executive authority of a municipal corporation where the proposed class II disposal well is to be located.

(ii) Published in a newspaper of general circulation in the county in which the proposed well is located either for five consecutive days or two consecutive editions of a weekly newspaper.

(iii) The applicant shall submit an affidavit attesting to the delivery and date of delivery to those entitled to notice of application, and the proof of publication and publication dates in accordance with paragraph (E)(5) of this rule. The affidavit of delivery of notice will be submitted on a form prescribed and provided by the division and will include a list of all persons notified in paragraph (E)(5) of this rule. The applicant shall retain copies of proof of notification and publication for a period of up to two years and be made available to the chief upon request.

(c) Comments and objections.

(i) Any person desiring to comment or to make an objection with reference to an application for a permit under this rule shall file such comments or objections, in writing, with the division of oil and gas resources management, 2045 Morse Road, building F, Columbus, Ohio 43229 or electronically through the division of oil and gas resources management website. In order for a comment or an objection to be reviewed by the chief, the comment or the objection must be filed with the division no later than thirty calendar days from the date of the posting of the public notice on the division’s website and include the name and mailing address of the person making the comment or objection.

(ii) Before the end of the public comment period as established in this rule, any person receiving notification in paragraph (E)(5)(b) of this rule may request a public meeting. The division will hold a meeting, at a location and in a format to be determined by the chief. The division will provide notice of the public meeting at least thirty calendar days prior to the meeting. The notice will

provide the date, time, format, and location of the public meeting via a posting on the division's website. The division also will provide the same notice to the applicant. Only those comments provided at the meeting, orally or in writing, will be reviewed by the chief. If the chief receives no requests for public meeting within the established public comment period, no meeting will be held.

(iii) The chief will review all received comments and objections within sixty calendar days after the end of the comment period or within forty-five calendar days after the conclusion of the public meeting to determine if the comments raise any legal deficiency or technical deficiency in the application related to Chapter 1509 of the Revised Code or division 1501:9 of the Administrative Code or to determine if the comments are outside the jurisdiction of Chapter 1509 of the Revised Code or division 1501:9 of the Administrative Code. If the chief determines no deficiency exists or if the comments are outside the jurisdiction of Chapter 1509 of the Revised Code or division 1501:9 of the Administrative Code, the public notice process is complete. The chief, in a manner to be determined by the chief, will respond to comments received from any person receiving notification in paragraph (E)(5)(b) of this rule and make the responses available on the website of the division. If the chief determines a comment or objection identifies a legal deficiency or technical deficiency in the application, the chief may address the legal or technical deficiency by issuing a permit subject to terms or conditions or the application will be returned to the applicant for correction of any deficiency within thirty calendar days.

(iv) Upon submittal of a revision to an application, including any deficiency, the chief will determine if all or any portion of paragraph (E)(5) of this rule is to be repeated by the applicant.

(4) Technical Review. The chief will perform a technical review of the application for a permit for a class II disposal well in accordance with the times established in figure 2 to determine if the application for the proposed class II disposal well complies with the requirements of this rule.

Figure 2

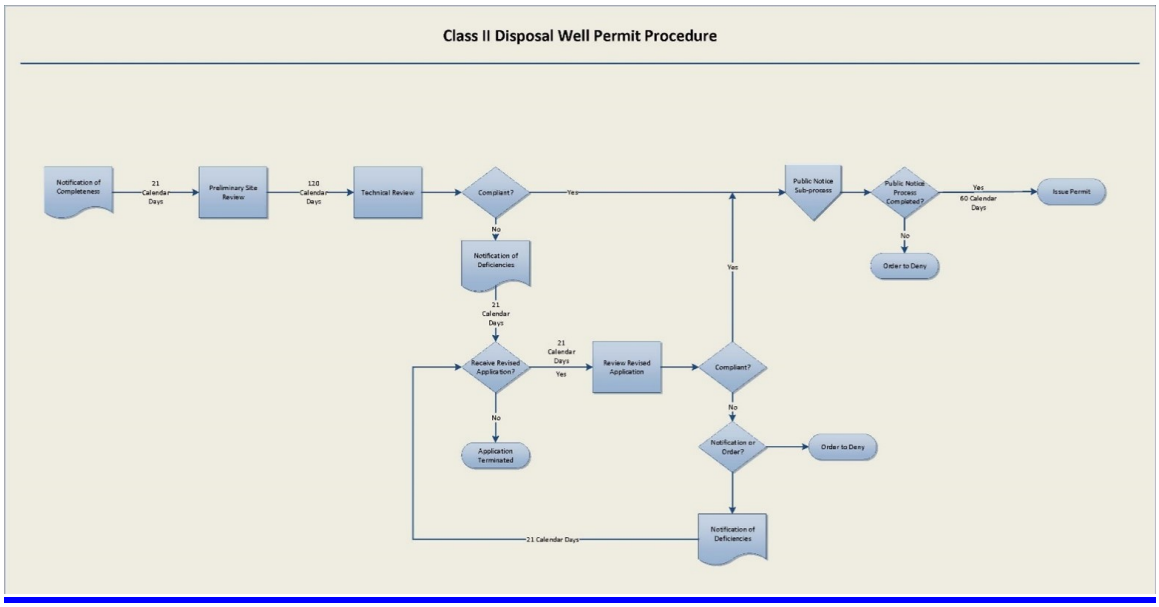
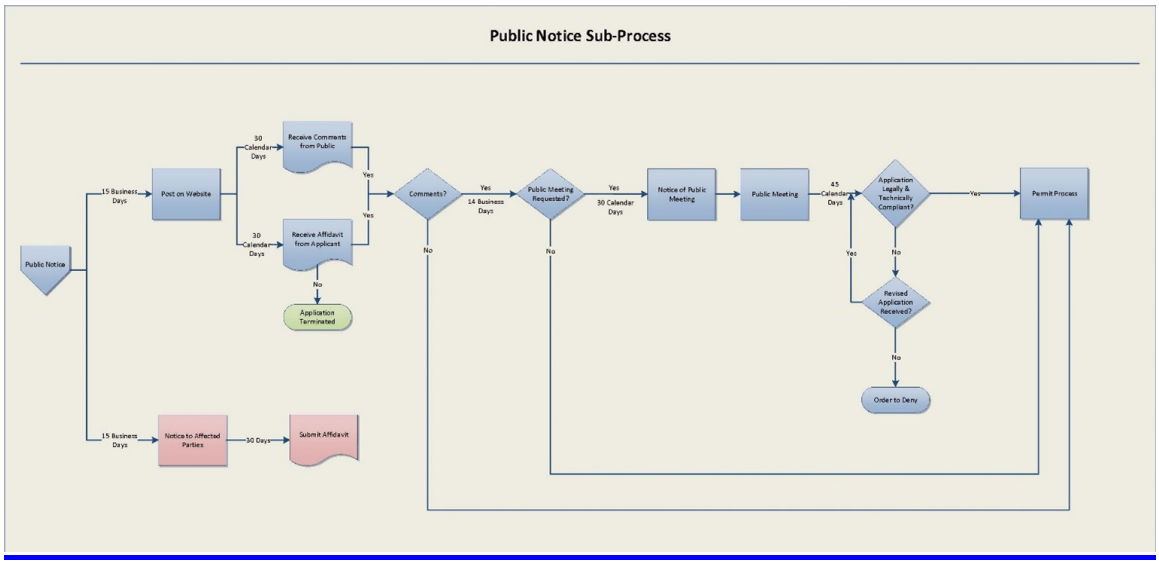


Figure 3



1501:9-3-06 **Construction, authorization to operate, and amendments to/of a class II disposal well or surface facility.**

(A) Construction/Converion

(1) No construction may commence at the well, class II disposal well or class II disposal well and surface facility until a permit is issued. The well shall be constructed in accordance with the requirements established in rule 1501:9-1-08 of the Administrative Code and in accordance with all the following:

(a) The well shall be constructed with casing that is mechanically centralized and cemented to a height of no less than five hundred feet above the top of the injection zone or potential flow zones as required in rule 1501:9-1-08 of the Administrative Code;

(b) The well shall be constructed with tubing and a packer set no more than two hundred feet above the injection zone. Installation of the tubing and packer shall be witnessed by a representative of the division;

(c) The well shall be equipped with a one-quarter inch npt, female, threaded fittings with a stop valve on the tubing and production casing annulus that are accessible from ground level and that allow for installation of gauges or other equipment for monitoring of annulus and injection pressures by the division; and

(d) To verify the proper placement of cement in the construction of a class II disposal well, a cement evaluation log must be completed for each casing string cemented after surface casing.

(2) No construction may commence at or the well or a surface facility until a permit to convert the well to a class II disposal well is issued. The well shall be constructed in accordance with the requirements established in rule 1501:9-1-08 of the Administrative Code and in accordance with all of the following:

(a) The chief may waive, upon written request of the applicant, any requirements established in rule 1501:9-1-08 of the Administrative Code that are not applicable since the well is already constructed and the applicant demonstrates the proposed well will still meet standards necessary to protect public health, safety, and the environment;

(b) The well shall have been cemented to a height of no less than five hundred feet above the top of the injection zone as required in rule 1501:9-1-08 of the Administrative Code.

(c) The well shall be constructed with tubing and a packer set no more than two hundred feet above the injection zone. Installation of the tubing and

packer shall be witnessed by a representative of the division;

(d) The well shall be equipped with a one quarter inch npt, female, threaded fittings with a stop valve on the tubing and production casing annulus that are accessible from ground level and that allow for installation of gauges or other equipment for monitoring of annulus and injection pressures by the division;

(e) To verify the competent placement of cement in the conversion of a well to a class II disposal well, cement evaluation log(s) must be completed on the casing string(s) identified by the chief; and

(f) Any open formation not to be utilized for injection shall be abandoned pursuant to Section 1509.13 of the Revised Code, Section 1509.15 of the Revised Code, and rule 1501:9-11 of the Administrative Code.

(3) Water Well Sampling

(a) After a permit has been issued but before commencement of drilling a new class II disposal well or converting a well to a class II disposal well, a class II disposal well owner shall provide to the chief results of sampling of water wells within one thousand five hundred feet of the proposed location of the class II disposal well and five hundred feet of any associated pipelines utilized for the injection of brine. The class II disposal well owner shall provide a list and map that identifies the location of each water well sampled.

(b) Where the owner of the property on which the water well is located denied the applicant access to sample the water well, the applicant shall provide proof of such denial.

(c) The sampling shall be conducted in accordance with the guidelines established in the “Best Management Practices for Pre-drilling Water Sampling” in effect at the time the permit is issued.

(d) If the chief determines that conditions at the proposed well site warrant a revision to the distance required to be sampled, the chief may revise the distance established in this rule for purposes of pre-drilling water sampling.

(B) Activities witnessed by the division

(1) A division representative must be present for performance of the following activities:

(a) Installation, modification, or relocation of tubing and packer; and

(b) Any testing required under Chapter 1509 of the Revised Code, division 1501:9 of the Administrative Code, or permit terms and conditions.

(2) A division representative may be present for performance of the following activities:

(a) Commencement of construction of a surface facility; and

(b) Verification of integrity.

(3) Each class II disposal well owner shall give the appropriate inspector forty-eight hour direct notice in advance of any activity required under paragraph (B) of this rule. A person in the division field office or central office shall be directly notified within the same time period when the appropriate inspector is unavailable.

(C) Construction of a surface facility

(1) A proposed surface facility shall be constructed in accordance with the approved application and associated documents, terms and conditions of the permit, and in accordance with Chapter 1509 of the Revised Code and rules adopted under it.

(2) Any material modifications or amendments to a surface facility shall occur in accordance with the requirements of this rule. For good cause shown, the chief may require the person requesting the material modification or amendment to submit a new application for a permit.

(3) Material Modifications

(a) A request for a material modification to an approved, but not yet operating, surface facility shall be submitted in writing to the chief prior to implementation of any material modification to a surface facility. All proposed material modifications must include all of the following items:

(i) A detailed description of the proposed material modification and the potential impact to the performance of the surface facility; and

(ii) Revised application documents, as applicable, pertaining to the material modification.

(b) After receipt of a material modification, the chief will review the material modification to ensure compliance with the times established in figure 4. The chief may require a site review prior to determining whether to approve the proposed material modification or to identify items

necessary to ensure compliance with the requirements of this rule.

(c) Nothing in paragraph (C)(3) of this rule prohibits a permittee from taking actions necessary to prevent harm to human health or safety or to prevent harm to the environment. A permittee may perform such actions that will result in a material modification only if the permittee submits a summary of the activities within twenty-four hours of the action and the permittee submits the material modification documents in accordance with this paragraph within three business days of the event that posed a threat to human health or safety or to the environment, or within another time frame as agreed to by the chief.

(4) Amendment to a surface facility

(a) A request for an amendment to an operating surface facility shall be submitted in writing to the chief prior to implementation of any revision to a surface facility. An amendment does not include activities such as routine maintenance, replacement of equipment in kind, or repair of already installed equipment. A request for an amendment must include all of the following:

(i) A detailed description of the proposed revision and of the impact that the revision will have to the operations of the surface facility;

(ii) Revised application documents pertaining to the proposed revision; and

(iii) Any other item required by the chief.

(b) The chief will review the request for an amendment to the permit to ensure compliance with the requirements of this rule in accordance with the times identified in figure 4 of this rule. If approved, the chief will issue an order modifying the permit authorizing injection operations at the class II disposal well and surface facility.

(c) The permittee may be required to perform a verification of integrity in accordance with paragraph (D) of this rule for the amendment in accordance with the requirements established in this rule.

Figure 4

	Actions				
	Site review (upon receipt of document)	Division review and response to submittal	Applicant/permittee resubmittal (upon notification	Division review and response to resubmittal	Division review and preparation of order

			of deficiencies from the chief)		
Procedures	Time				
Material modification review	5 business days	5 business days	5 business days	5 business days	Not applicable
Amendment review	20 business days	30 business days	20 business days	30 business days	60 calendar days

(D) Verification of integrity. The person operating a surface facility shall perform a verification of integrity prior to commencement of operation of a surface facility that includes all of the following:

(1) Prior to testing or inspection of the surface facility, the permittee must provide for review and acceptance by the chief a listing of the items being tested or inspected, the type of test or inspection being performed, the qualified person or persons performing the test or inspection and their qualifications, and a schedule of the tests or inspections proposed for the verification of integrity.

(a) All testing shall be performed in accordance with chapter 1501:9 of the Administrative Code or relevant industry standards.

(b) A verification of integrity may be performed on all or portions of the surface facility.

(2) The chief may require additional testing or may waive any portion of the verification of integrity upon written request and justification. The chief may approve limited operation of the surface facility in order to perform all or part of the verification of integrity, upon written request of the permittee. The verification of integrity may be performed after repairs to any containment or on the findings of an inspection conducted by the chief.

(3) Upon completion of all testing and inspections, the permittee shall provide for review and acceptance by the chief the results of all testing and inspections.

(4) The permittee will provide verification in an affidavit on a form prescribed by the chief that specifically reads, “I, as permittee of this surface facility, do hereby certify that to the best of my knowledge the surface facility was constructed in accordance with the approved application and the verification of integrity performed and completed according to the accepted plan.”

(E) Prior to commencement of permitted injection operations in a class II disposal well, the class II disposal well owner shall complete a mechanical integrity test part 1 and mechanical integrity test part 2.

(1) Prior to commencement of permitted injection operations in a class II disposal well, the class II disposal well owner shall complete a mechanical integrity test part 1 and mechanical integrity test part 2.

(2) The following conditions require that a pressure test be conducted at a pressure that is 1.25 times the maximum allowable injection pressure as described in rule 1501:9-3-07 of the Administrative Code. This test shall be for a duration of at least fifteen minutes with no more than a five per cent decline in pressure unless otherwise approved by the chief.

(a) For any perforations in the casing that are abandoned during construction or conversion of the well, the casing and plug shall be pressure tested prior to perforating any proposed injection zones.

(b) For any open-hole class II disposal well for which any formation is abandoned during construction of the class II disposal well or conversion of a well to a class II disposal well, each plug shall be verified for proper placement and each plug inside casing shall be pressure tested prior to perforating any proposed injection zones.

(F) Expiration of class II disposal well permit.

(1) If a permit issued under section 1509.06 of the Revised Code expires, the owner of partially constructed class II disposal well or surface facility shall immediately cease operations. The person shall either apply for a permit under section 1509.06 of the Revised Code or plug the well.

(2) The owner of a class II class disposal well shall plug the well and reclaim the site if within five years of the effective date of this rule or within five years of issuance of a permit to drill or convert the well under section 1509.06 of the Revised Code the class II disposal well owner does not receive a permit to inject paragraph (G) of this rule.

(G) Order issuing a permit to inject in a class II disposal well.

(1) Prior to beginning initial injection operations at a class II disposal well or a class II disposal well and surface facility, the owner shall file an application on a form prescribed by the chief requesting a permit authorizing injection. This application will include all of the following:

(a) Confirmation that all permit conditions were satisfied;

(b) A verification of integrity for the associated surface facility or the oil and gas waste facility, whichever is applicable;

(c) Copies of well construction records, well testing records, and geophysical or electrical logs; and

(d) A signed and notarized statement that the operator has constructed and tested the class II disposal well in accordance with Chapter 1509 of the Revised Code and division 1501:9 of the Administrative Code.

(2) The chief will review the permit application and either approve or deny by order within sixty-calendar days of receipt of a complete application under paragraph (G) of this rule.

(3) A class II disposal well shall be transferred in accordance with section 1509.31 of the Revised Code and the new owner shall submit an application on a form prescribed by the chief to transfer the permit to inject. The chief will review and issue a new order for a permit to inject within ten business days of a complete permit application and form required under section 1509.31 of the Revised Code.

(4) A well completion record required under section 1509.10 of the Revised Code and Chapter 1501:9-1 of the Administrative Code shall be filed before a class II disposal well owner may apply for a permit authorizing injection. The well completion record shall also include results of initial testing of construction as described in paragraph (B) of this rule.

(5) The class II disposal well owner shall directly notify the appropriate inspector at least forty-eight hours prior to commencement of injection. A person in the division field office or central office shall be directly notified within the same time period when the appropriate inspector is unavailable.

1501:9-3-07 **Design and operational requirements of a class II disposal well or a surface facility.**

(A) On and after the effective date of this rule, any person who operates a class II disposal well or a surface facility shall comply with all of the operational requirements and standards in this rule, unless specifically exempted in this rule. Compliance with this rule does not eliminate the requirement that a person comply with any other applicable laws.

(B) Only brine and other waste substances may be injected into a class II disposal well for which a permit is issued under Chapter 1501:9-3 of the Administrative Code.

(C) Maximum allowable injection pressure for class II disposal well.

(1) The maximum allowable injection pressure cannot exceed the amount calculated using the formula prescribed in paragraph (C)(1)(a) of this rule.

(a) The formula Pm = (0.75 - (Pgf x SG))D; where,

Pm = maximum surface injection pressure (pounds/inches squared)

0.75 psi/ft = maximum injection pressure gradient allowed

D = depth to top of shallowest proposed injection formation (feet)

Pgf = 0.433 (psi/ft) = pressure gradient of fresh water

SG = 1.2 = conservative specific gravity of injection fluid

(2) Hydraulic fracturing of a class II disposal well is prohibited unless the chief approves a request in writing. Any hydraulic fracturing may not occur for more than 48 consecutive hours. The chief will not approve more than two hydraulic fracturing requests per operator per well in a calendar year.

(3) The chief may implement graduated maximum allowable injection pressure requirements and any applicable testing requirements not to exceed the maximum allowable injection pressure requirements as established in this rule.

(D) Mechanical integrity demonstration of a class II disposal well.

(1) To demonstrate a class II disposal well has mechanical integrity, annular pressure between the production casing and the injection tubing shall be continuously monitored and recorded using a method acceptable to the chief. Positive pressure sufficient to detect leaks shall be maintained on the annular space between the casing and the injection tubing. On or after the effective date of this rule, the annular pressure data shall be maintained for the life of the well and submitted to the division in a format acceptable to the chief upon

the request. For wells permitted after October 1, 2012, any annular pressure data recorded prior to the effective date of this rule shall be maintained for the life of the well and submitted to the division in a format acceptable to the chief upon the request. All data from such monitoring shall also be available for review by the division at any time and the chief may require the class II disposal well owner to submit the data to the division. If a well is transferred to another person, any data maintained under this paragraph shall be transferred with the well.

(2) Not less than once every five years or at the request of the chief, a mechanical integrity test part 1 shall be performed.

(a) At least twenty-four hours prior to the commencement of any mechanical integrity test part 1, the class II disposal well owner shall notify the appropriate inspector. A person in a division field office or central office shall be directly notified when the appropriate inspector cannot be contacted. All records of tests shall be retained by the class II disposal well owner for a period of at least five years or until a subsequent mechanical integrity test part 1 is performed. Results of all tests shall be recorded on a form provided by the division and filed with the division within thirty days after the completion of the mechanical integrity test.

(b) During operation of the class II disposal well, the chief, for good cause, may require a person to complete a mechanical integrity test part 2.

(3) The class II disposal well owner shall install, maintain, and annually test an automatic shut-off device set to terminate injection operations if the permitted maximum allowable surface injection pressure at the well head is exceeded. If at any time the maximum allowable injection pressure is exceeded, the class II disposal well owner shall immediately cease operations and notify the appropriate inspector within twenty-four hours. Prior to resuming operations and under the supervision of the chief, the class II disposal well owner shall perform a mechanical integrity test part 1 and test the automatic shut-off device for compliance with this rule.

(a) If an inspection of a class II disposal well determines the automatic shut-off device has been disabled, set above the maximum allowable surface injection pressure, or altered in any other way that prevents the termination of injection operations upon reaching the maximum allowable injection pressure, the owner may be ordered to cease injection operations at the well for 30 consecutive days. The chief may revoke the permit authorizing injection if subsequent violations of this paragraph occur.

(4) If a class II injection well does not meet mechanical integrity, the owner shall

immediately suspend injection operations and notify the division within 24 hours. The owner shall develop a plan to achieve mechanical integrity and submit to the chief in writing who will accept or reject in writing. Upon implementation of the accepted plan, if the chief determines the class II injection well cannot meet mechanical integrity, the chief may order the well to be plugged.

(5) If the chief determines operations of a class II disposal well may be impacting wells or impacting public health, safety, or the environment outside of the permitted injection zone or the previous area of review, the chief may modify a permit by order and require a new area of review to be conducted as specified in rule 1501:9-3-05 of the Administrative Code at a distance to be determined by the chief. If any new corrective action is necessary based on the new area of review, the person shall immediately suspend injection operations and complete the corrective action before resuming injection operations.

(E) Tubing and Packer Installation. For a class II disposal well in operation prior to the effective date of this rule, if a person proposes to install a new tubing and packer, the tubing and packer shall be set no more than two hundred feet above the injection zone. Installation of the tubing and packer shall be witnessed by a representative of the division.

(F) Monitoring and inspection procedure.

(1) The owner shall visually inspect the wellhead daily during active injection operations to ensure compliance with Chapter 1509 of the Revised Code, division 1501:9 of the Administrative Code, and any terms and conditions associated with the permits issued for the well.

(2) The class II disposal well owner shall continuously monitor and record injection pressures and injection volumes for each class II disposal well on a daily operational basis. On or after the effective date of this rule, the data shall be maintained for the life of the well and submitted to the division in a format acceptable to the chief upon the request.

(3) The chief may require the class II disposal well owner to install ground water monitoring wells when contamination of the ground water has been caused by or is reasonably anticipated to be caused by the class II disposal well. All ground water monitoring well installation and sampling shall be conducted in accordance with the U.S. Environmental Protection Agency “RCRA Ground Water Technical Enforcement Guidance Document OSWER-9950.1”.

(4) The class II disposal well owner shall develop and implement an inspection procedure and schedule for all equipment, containment systems, pipelines, and other appurtenances at the surface facility. The chief may require a class

II disposal well owner to conduct such inspections on a schedule that is different than a permittee's schedule if there is just cause.

(a) The inspection procedure is to ensure all equipment and other appurtenances associated with the surface facility are maintained in a safe and functional manner.

(b) Inspections may include, but not be limited to, containment, tanks, liner systems, pumps, process piping, pipelines, monitoring equipment, monitoring wells, and other inspections recommended by equipment manufacturers or others experienced with the operation and maintenance of the equipment and other appurtenances.

(c) Document on a log all inspections performed, name of the person performing the inspection, date of the inspection, findings of the inspection, and actions taken as a result of the inspection.

(5) Any pipeline that transports brine or other waste substances must be tested in accordance with the standards of either ANSI/ASME B31.4 "pipeline transportation systems for liquids and slurries" or ASTM F2164 "standard practice for field leak testing of polyethylene piping systems using hydrostatic pressure" during the verification of integrity, at least once every five years, after repair or replacement of the pipe and any connections, or at the request of the chief.

(a) Each surface facility permittee shall give the appropriate inspector forty-eight-hour direct notice in advance of any activity performed under paragraph (F)(5) of this rule. A person in the division field office or central office shall be directly notified within the same time period when the appropriate inspector is unavailable.

(b) Any test of a pipelines used to transport brine to a class II disposal well shall be witnessed by a division representative.

(G) Reporting.

(1) Class II disposal well.

(a) Not more than forty-five days after the end of each calendar quarter, Class II disposal well owners shall submit a report on a form prescribed by the chief containing the following information:

(i) Source, volume in barrels, and delivery date for each shipment of brine or other waste substances;

(ii) Total volume in barrels of brine or other waste substances received for each month in the quarter;

(iii) Summarized volumes of delivered brines or other waste substances separated by those subject to fee(s) pursuant to division (H) of section 1509.22 of the Revised Code; and

(iv) Average and maximum injection pressures compiled for each month of the previous quarter.

(b) An class II disposal well owner well shall submit to the chief, on or before the fifteenth day of February of each calendar year on a form prescribed by the chief, a statement of the volume of brine injected in the well for the immediately preceding calendar year and the amount of the fee required to be collected pursuant to the requirements established in division (H) of section 1509.22 of the Revised Code for the immediately preceding calendar year. At the same time the statement is submitted, the owner shall submit the fee collected pursuant to the requirements established in division (H) of section 1509.22 of the Revised Code. The chief may require the statement, the fee collected, or both to be submitted electronically.

(H) During the operation of a class II disposal well or a surface facility, the chief may require class II disposal well owner to submit additional information pertaining to the design, construction, or operation of the permitted class II disposal well or surface facility that the chief determines is necessary for the protection of public health or safety or to prevent damage to the environment or is necessary to ensure compliance with the requirements of this rule.

(I) Lawful disposal of waste.

(1) A class II disposal well owner or a surface facility shall lawfully dispose of all wastes and equipment resulting from or used in operations at the class II disposal well or surface facility, including but not limited to all filter media, process piping, fittings, valves, and tubing that comes in contact with brine and other waste substances. The person shall keep all records of disposal for five years and make them available to the chief upon request.

(2) No down-blending, solidification, or stockpiling of solid waste mechanically generated at the surface facility may occur at a surface facility.

(J) Emergency release notification. Provide and maintain in a visible location at a class II disposal well or surface facility a contact list with phone numbers for notification purposes in the event of a release of brine or other waste substances. Include in the contact list the class II disposal well owner designated incident response coordinator, applicable federal, state, and local authorities with responsibilities related to a release, and contractors who could respond to the release. Any release at a class II disposal well shall be managed by the permittee in accordance with Chapter 1501:9-8 of the Administrative Code.

(K) The division may sample brine or other wastes at any time.

(L) If the total capacity of a primary containment is reduced by 30 percent due to the accumulation of solid material in the primary containment, the person operating the surface facility shall empty and clean the primary containment. All brine and other waste substances removed during this activity shall be disposed of lawfully. The person must provide direct notification to the division two business days before emptying and cleaning each primary containment.

(M) The requirements of paragraph (M) of this rule do not apply to a surface facility that is already constructed or has an unexpired permit as of the effective date of this rule unless either of the following apply: the operator applies for an amendment for the surface facility or the chief determines that the operation of the surface facility is impacting public health, safety, and the environment. If the chief determines the surface facility is impacting public health safety, and the environment, the chief may require by order the operator to amend the surface facility to meet the following standards. All of the following standards apply to the design, construction, and operation of a surface facility:

(1) The containment standards for a surface facility include all of the following:

(a) Design, install, operate, and maintain to prevent a release of brine or other waste substances from the containment.

(b) Install, test, operate, and maintain in accordance with the manufacturer’s recommendations and specifications.

(c) Capable of storing brine or other waste substances without collapse, rupture, or failure.

(d) Compatible with the substance that it contains and the physical and climatic conditions to which the containment will be exposed.

(e) Protect all metallic surface containment from corrosion by cathodic protection, appropriately designed coating systems, or other means approved by the chief.

(f) Protect all above ground metal surface tanks from lightning in accordance with industry standards.

(g) Design, install, test, operate, and maintain geomembrane liner systems in accordance with the manufacturer’s recommendations and specifications. Utilize testing methods in accordance with ASTM standards, International Association of Geosynthetic Installers standards, or other standards as approved by the chief.

(h) Provide foundation or base support for the containment that is resistant to pressure gradients above and below the system and capable of preventing failure due to settlement, compression, or uplift.

(i) Design, install, and maintain containment to prevent physical damage from equipment due to excessive stress, settlement, vibration, expansion, or contraction.

(j) Repair or replace any containment or containment component such as liners, gaskets, piping, pumps, valves, rivets, and bolts immediately upon detection of failure or imminent failure.

(k) Inspect and assess by a qualified person containments or containment system components that were utilized previously in a different service or at a different location. At a minimum, investigate and disclose the following in the assessment:

(i) Design standard(s), if available, to which the containment or containment components is constructed;

(ii) Compatibility of substance to be stored in the containment;

(iii) Existing condition of the containment or containment components; and

(iv) Age of the containment or containment components.

(2) Primary containment structures for a surface facility shall not overflow. Primary containment standards are as follows:

(a) Provide failsafe mechanisms, such as overfill protection, shut-off valves, and leak detection systems.

(b) Affix and maintain an outward visible label to or provide signage for all primary containment, as applicable, which identifies the contents. If the primary containment is a tank, the label or sign will also identify the maximum volume.

(c) Maintain a minimum of six inches of freeboard within all primary containment that is exposed to precipitation. A larger freeboard may be required by the chief.

(d) Provide appropriate air release and vacuum release on all primary containment, as applicable, and install filters on any air release system to control odors when necessary.

(e) In addition to all other remedies provided by law, the chief may prohibit the use or require the repair of any pit or tank which fails to conform to any of the requirements of this rule.

(f) Burial of any tank is prohibited.

(g) A liner is not primary containment.

(3) Secondary containment shall not be used as primary containment at a surface facility. Secondary containment standards are as follows:

(a) Provide one hundred ten per cent of the capacity of the largest single primary containment or the total capacity of multiple primary containments that are piped together to function as a single containment, whichever is greater. Provide an additional six-inch freeboard if the secondary containment is exposed to precipitation.

(b) Design and maintain as a means to capture an incidental spill or release from a primary containment and a catastrophic failure of a primary containment.

(c) Remove any accumulation of storm water in the secondary containment within thirty-six hours after the accumulation. For surface facilities connected to a class II disposal well, the chief may require the installation of a pumping system to keep the secondary containment free of storm water.

(d) Provide secondary containment for all pumps and other appurtenances that are associated with the storage, processing, or conveyance of brine or other waste substances.

(e) Disclose allowable leak rates for geomembrane systems.

(4) Conveyance systems standards are as follows:

(a) Process piping.

(i) Design, install, operate, and maintain dedicated process piping and any supporting structures for flow of all brine, other waste substances, and other materials used in the storing of the brine or other waste substances.

(ii) Design and install process piping systems in a manner that minimizes abrasion and corrosion in the piping system and allows for expansion and contraction of the conveyance system.

(iii) Design process piping systems to be compatible with the substance that they carry and the physical and climatic conditions to which the piping system will be exposed.

(iv) Design, install, and maintain a secondary containment system for all process piping systems.

(v) Affix and maintain a label on all process piping to identify the contents and flow direction of the pipe contents.

(b) Pipeline standards are as follows:

(i) Design, install, operate, and maintain pipelines and any supporting structures to prevent a release of brine or other waste substances and to have a working pressure rating equal to or greater than the highest anticipated operating pressure to which the pipeline might be exposed to. Pipelines used to transport brine to a class II disposal well shall have a working pressure rating equal to or greater than the maximum allowable injection pressure prescribed in rule 1501:9-3-07 of the Administrative Code.

(ii) Design, install, operate, and maintain dedicated and controlled pipelines for flow of all brine and other waste substances.

(iii) Design and install pipelines in a manner that minimizes abrasion and corrosion in the pipeline and allows for expansion and contraction of the pipeline.

(iv) Design pipelines to be compatible with the substance that they carry and the physical and climatic conditions to which the pipeline will be exposed.

(v) Design, install, and maintain a means to detect, and capture a leak from the pipeline.

(vi) Design, install, and maintain a means to detect and locate a pipeline.

(vii) Design, install, operate, and maintain pipelines in a manner to protect public water intakes, ponds, developed springs, water wells, wetlands, or any water of the state as defined in section 1509.01 of the Revised Code and the chief may require a means to isolate pipeline segments near these areas.

(viii) Design, install, operate and maintain pipelines with fittings that are accessible from ground level, approved by the chief that allow

for installation of gauges or other equipment for monitoring by the division.

(ix) The chief may require a means to isolate pipeline segments for protection of human health and safety and the environment.

(5) Provide and maintain site security controls at a surface facility that prevent accidental or unauthorized entry into the facility or areas of the facility not intended for access by the public, wildlife, and domestic animals. The site security controls may include any or all of the following:

(a) A sign that is legible from the public right-of-way and includes: surface facility name, oil and gas waste facility permit number, twenty-four-hour emergency contact telephone number, and 911 address of the oil and gas waste facility;

(b) Signs or other means that clearly identify portions of the surface facility that are intended to be accessible only to authorized personnel;

(c) Lighting that illuminates the surface facility sufficiently to discourage acts of vandalism;

(d) Signs or other means that clearly identify ingress, egress, and traffic flow patterns;

(e) Mesh, screening or other controls to prevent access by migratory birds on open top containments, as necessary; and

(f) A wind-sock for wind direction determination.

(N) Enforcement.

(1) The chief may immediately suspend, by order, operations of a class II disposal well or surface facility under any of the following circumstances:

(a) A class II disposal well is causing or is likely to cause contamination of the land, surface waters, or subsurface waters;

(b) A class II disposal well cannot demonstrate mechanical integrity;

(c) The failure of mechanical integrity test part 1 or mechanical integrity test part 2;

(d) A seismic event(s) originating underground that occurs within three miles of the class II disposal well;

(e) A class II disposal well is operated without authorization as required by

section 1509.22 of the Revised Code and paragraph (G) of rule 1501:9-3-06 of the Administrative Code;

(f) The chief determines that operation or continued operation of the well or surface facility is likely to endanger public health or safety;

(g) The chief determines that brine or other waste substances from class II disposal well injection operations may be outside of the permitted injection zone or area of review;

(h) The shut-in pressure of a well exceeds the maximum allowable injection pressure;

(i) Exceedance of the determined maximum allowable injection pressure may be suspended in accordance with the following:

(i) First offense: suspension of injection operations for 24 hours;

(ii) Second offense within 365 calendar days: suspension of injection operations for 14 days;

(iii) Third offense within 365 calendar days: suspension of injection operations for 30 days;

(iv) Fourth offense within 365 calendar days: revocation of permit by order.

(j) Operations at an associated oil and gas waste facility or surface facility associated with the class II disposal well are suspended by order of the Chief; and

(k) Any violation of Chapter 1509 of the Revised Code or division 1501:9 of the Administrative Code.

(O) Resuming operations after suspension

(1) If the chief suspends operations for a class II disposal well, the class II disposal well owner shall develop a written plan that describes any testing to be performed, any actions to correct the conditions that caused the suspension, and estimated length of time to complete the plan. Within ten business days of receipt, the chief will review the plan and either accept it, require modifications, or reject the plan and order necessary corrective action.

(2) If the chief determines a class II disposal well has caused or contributed to seismic activity, the chief will require the owner to submit a plan for acceptance or rejection established in paragraph (O) of this rule which may include, but is not limited to, all of the following:

(a) Performing a geological investigation;

(b) Seismic monitoring;

(c) Surface motion (ground shaking) monitoring;

(d) Submission of data collected;

(e) Operational parameters of the class II disposal well;

(f) Soil depth to bedrock determination; and

(g) Identification of areas of potential concern.

(P) Required plugging of a class II disposal well

(1) If no injection has occurred in a class II disposal well for five consecutive years, the class II disposal well owner shall plug the class II disposal well in accordance with section 1509.13 of the Revised Code, section 1509.15 of the Revised Code, and chapter 1501:9-11 of the Administrative Code.

(2) If corrective actions identified under paragraph (D)(5) of this rule are not completed within 90 calendar days from notification from the division, the class II disposal well owner shall plug the class II disposal well in accordance with section 1509.13 of the Revised Code, section 1509.15 of the Revised Code, and chapter 1501:9-11 of the Administrative Code.

(3) If an accepted plan developed under paragraph (O) of this rule is not completed in the time frame established in the accepted plan, the class II disposal well owner shall plug the class II disposal well in accordance with section 1509.13 of the Revised Code, section 1509.15 of the Revised Code, and chapter 1501:9-11 of the Administrative Code.

(4) If a plan required under paragraph (O) of this rule is not submitted within 120 calendar days of the suspension of activity, the class II disposal well owner shall plug the class II disposal well in accordance with section 1509.13 of the Revised Code, section 1509.15 of the Revised Code, and chapter 1501:9-11 of the Administrative Code.

1501:9-3-08 **Annular disposal.**

(A) Approval required.

(1) On and after the effective date of this rule, the chief will not authorize the disposal of brine in any annular space.

(2) If the chief approved annular disposal of brine prior to the effective date of this rule, the annular disposal well owner may continue to dispose brine in the already-approved annular space in accordance with paragraphs (B) through (F) of this rule unless any of the following apply:

(a) The annular disposal well owner fails to conduct a mechanical integrity tests outline in paragraph (B) of this rule;

(b) The annular disposal well owner cannot demonstrate mechanical integrity for the annular disposal well;

(c) There is no reported production for the annular disposal well for two consecutive reporting periods; or

(d) The chief orders cessation of annular disposal due to evidence of defective casing, evidence of contamination of an underground source of drinking water within one quarter mile of the annular disposal well, or failure to operate in accordance with paragraphs (B) through (F) of this rule.

(3) The chief will rescind approval for annular disposal when the owner fails to conduct annular disposal operations in accordance with Chapter 1509 of the Revised Code and the rules adopted thereunder.

(B) Mechanical integrity

(1) An annular disposal well has mechanical integrity if:

(a) There is no significant leak in the casing(s); and

(b) There is no significant movement of brine into an underground source of drinking water through channels adjacent to the well bore.

(2) A well owner authorized to dispose brine by annular disposal shall demonstrate mechanical integrity through the use of a positive displacement test for each annular disposal well at least once every five years.

(a) Over the course of a one-hour test pressure may decline by only one percent.

(b) The gas used in the positive displacement test will be inert.

(C) Volume limitations.

(1) An annular disposal well shall not dispose of more than one thousand eight hundred twenty-five barrels of brine per year.

(D) Operating and monitoring requirements.

(1) A person who owns a well for annular disposal or the associated surface operations for an annular disposal well shall not cause or reasonably be anticipated to cause contamination of land, surface water, or ground water.

(2) If mechanical failures or downhole problems cause or could reasonably be anticipated to cause contamination of surface or subsurface soils or waters, the annular disposal well owner shall immediately cease all annular disposal operations and immediately notify the appropriate inspector and within twenty-four hours, submit to the chief a written report which includes a detailed description of the incident, the actions taken to correct the situation, and the results of such action.

(3) The connection between the brine pipeline and the annulus of the annular disposal well shall be visible and accessible for inspection by the division and all pipelines, valves, and fittings from a brine storage tank or a well to the annulus of the annular disposal well shall be liquid tight.

(4) A flow meter or other quantitative monitoring method is required if annular disposal is used.

(5) No pressure, except that created by hydrostatic pressure, shall be applied to brine disposed of into an annular space.

(6) No brine shall be conveyed to an annular disposal well by any means other than pipeline.

(7) Only brine resulting, obtained, or produced in connection with oil or gas production on the same lease or on adjacent leases, may be disposed of into an annular disposal well.

(8) The owner immediately shall notify the chief in writing upon abandonment of annular disposal operations. Once annular disposal operations are abandoned, they cannot be resumed.

(9) When an annular disposal well becomes incapable of producing oil or gas, all annular disposal operations shall cease and the well plugged and abandoned in accordance with Chapter 1509 of the Revised Code and any rules adopted thereunder.

(E) Reporting and recordkeeping requirements.

(1) A person who owns a well for annular disposal shall keep an accurate record of the volume of brine disposed and a copy of such record furnished to the chief upon request. The owner shall file an annual report with the chief, on or before the fifteenth day of April, setting forth the total volume of brine disposed of during the preceding calendar year and if applicable, a description of any mechanical failures, the actions taken to correct the situation, and the results of such actions as described in paragraph (D)(2) of this rule.

(2) The owner shall retain mechanical integrity test data and monitoring records for a period of not less than five years.

1501:9-3-09 **Property rights unaffected.**

An authorization or denial of an authorization to operate a class II disposal well or a well in which annular disposal occurs should not be construed so as to alter or amend any common law property rights or responsibilities.

1501:9-3-10 **Class II disposal well and surface facility reclamation.**

(A) A person shall comply with Chapter 1509 of the Revised Code and Chapter 1501:9-11 of the Administrative Code regarding the plugging, abandonment, and reclamation of a class II disposal well and surface facility.

(B) A class II disposal well owner shall submit a decommissioning plan for review and acceptance by the chief prior to commencement of plugging the class II disposal well.

(C) If a surface facility is not connected to any class II disposal well with a valid permit authorizing injection, the surface facility must obtain a chief's order under section 1509.22 (C) of the Revised Code.