Report to the Texas Board of Professional Geoscientists (TBPG) prepared by the Carbon Capture and Sequestration (CCS) Workgroup

1.0 Introduction

1.1 CCS Workgroup overview, purpose, and scope

The Carbon Capture and Sequestration (CCS) Workgroup was formed in December 2023 at the request of the Texas Board of Professional Geoscientists (TBPG) to better define the role of a Professional Geoscientist (P.G.) in preparing Underground Injection Control (UIC) Class VI injection well permit applications, and to determine what components of UIC Class VI permit applications submitted for approval to The Railroad Commission of Texas (RRC), if any, should be signed by a P.G. licensed in Texas.

The CCS Workgroup was tasked with the following activities related to the signing and sealing of UIC Class VI permit applications:

1. Define whether the TBPG has jurisdiction for geoscience work performed in the permitting of a UIC Class VI injection well.
2. If the TBPG has jurisdiction:
    a. Define the scope of TBPG's oversight;
    b. Determine if additional regulation is required for TBPG to perform their oversight;
    c. Identify costs/benefits to the industry of the oversight; and
    d. Identify costs/benefits to TBPG of the oversight.
3. Submit a report to the TBPG detailing the evaluation and recommendations.

1.2 CCS Workgroup members and contributors

The CCS Workgroup was composed of P.G.s and other professionals engaged in planning, permitting, regulating, and executing Class VI injection wells in Texas. The workgroup was initially organized by Mr. Brycen Arnold, a former member of the TBPG staff. Group facilitation then transitioned to Ms. Danielle Kingham, P.G. at GSI Environmental Inc. and TBPG Board Member, upon Mr. Arnold's move to a new role. The group met monthly for 1- to 2-hour virtual sessions between December 2023 – November 2024. In addition, the CCS Workgroup members conducted independent research and analysis between meetings.

CCS Workgroup included the following members:

- Mr. Brycen Arnold, TBPG Staff (December 2023 – January 2024)
- Mr. Sean Avitt, P.G., RRC; CCS Workgroup Secretary
- Mr. Steven Campbell, P.G., Kinder Morgan
- Ms. Allison Crane, BP
- Ms. Danielle Kingham, GSI Environmental Inc. and TBPG Board Member; CCS Workgroup Facilitator
- Mr. Gordon Magenheim, P.G., TBPG Staff
- Mr. Bryce McKee, P.G., RRC
- Dr. Donald Rehmer, P.G., Bureau of Ocean Energy Management
- Ms. Caroline Wachtman, P.G., Oxy

Guest contributors invited to workgroup meetings included:

- Mr. Rene Truan, TBPG Director
- Ms. Kathy Johnson, Attorney for TBPG

1.3 CCS Workgroup activities

1.3.1 Define TBPG's jurisdiction over geoscience work performed for Class VI well permitting

1.3.1.1 Public practice of geology

First, the CCS Workgroup considered whether geoscience work performed for UIC Class VI permit applications submitted to the RRC qualifies as the "public practice of geoscience." To address this question, the CCS Workgroup considered the definitions established in the Texas Occupations Code (TOC). The TOC 1002.002(6)[1] defines "Practice for the public" as follows:

> *1002.002(6) "Practice for the public":*
> *(A) means providing professional geoscientific services:*
> *(i) for a governmental entity in this state;*
> *(ii) to comply with a rule established by this state or a political subdivision of this state; or*
> *(iii) for the public or a firm or corporation in this state if the practitioner assumes the ultimate liability for the work product; and*
> *(B) does not include services provided for the express use of a firm or corporation by an employee or consultant if the firm or corporation assumes the ultimate liability for the work product.*

[1]https://statutes.capitol.texas.gov/docs/OC/htm/OC.1002.htm#:~:text=Sec.%201002.003.%20APPLICATION%20OF%20SUNSET%20ACT.%20The%20Texas%20Board%20of

The RRC is authorized by the Title 16, Texas Administrative Code (TAC) Chapter 5[2] to regulate Class VI wells in Texas. However, the United States Environmental Protection Agency (U.S. EPA) has not yet approved RRC's application for primary enforcement authority for Class VI, so a dual permitting process is currently in effect. The 16 TAC Chapter 5 requires the following:

> *§5.205.c.2.C (ii) A qualified professional engineer licensed by the State of Texas, as required under Occupations Code, Chapter 1001, relating to Texas Engineering Practice Act, must prepare or supervise the preparation of a written estimate of the highest likely amount necessary to close the geologic storage facility. The owner or operator must submit to the director the written estimate under seal of a qualified licensed professional engineer, as required under Occupations Code, Chapter 1001, relating to Texas Engineering Practice Act;*
>
> *§5.203.a(5) If otherwise required under Occupations Code, Chapter 1001, relating to Texas Engineering 27 Practice Act, or Chapter 1002, relating to Texas Geoscientists Practice Act, respectively, a licensed professional engineer or geoscientist must conduct the geologic and hydrologic evaluations required under this subchapter and must affix the appropriate seal on the resulting reports of such evaluations.*

To comply with RRC's 16 TAC Chapter 5, a Professional Engineer (P.E.) or P.G. signature/seal may be required pursuant to TOC 1002.002(6)(A)(ii). Additionally, the TBPG has the authority to regulate the "public practice of geoscience," as described in TOC 1002.151[3].

1.3.1.2 Comparison of UIC Class VI to Class II or Class I injection wells

Next, the CCS Workgroup contemplated how geoscience work for UIC Class VI wells compared to geoscience work for the purposes of oil and gas, other energy resources or mineral extraction, because these types of geoscience work are exempt from requiring a license for the "practice for the public" (TOC 1002.252).

> *Sec. 1002.251. LICENSE REQUIRED. (a) Unless exempted by this chapter, a person may not engage in the public practice of geoscience unless the person holds a license issued under this chapter.*
> *Sec. 1002.252. EXEMPTIONS. The following activities do not require a license under this chapter:*
> *Sec. 1002.252 (3) geoscientific work performed exclusively in exploring for and developing oil, gas, or other energy resources, base metals, or precious or nonprecious minerals, including sand, gravel, or aggregate, if the work is done in and for the benefit of private industry;*

Oil and gas exploration and production activities including UIC Class II well applications for injecting CO_2 for purposes of enhanced oil recovery (EOR) are exempted from "public practice of geoscience" definition. However, RRC has primacy for UIC Class II injection wells in Texas and

[2] https://texreg.sos.state.tx.us/public/readtac$ext.ViewTAC?tac_view=5&ti=16&pt=1&ch=5&sch=B&rl=Y
[3] https://statutes.capitol.texas.gov/docs/OC/htm/OC.1002.htm

requires a P.E. and/or P.G. signature for some Class II application products[4]. A P.E. signature/seal is required on UIC Class II well permit applications requiring pressure front calculations for Area of Review (AoR) delineation and a P.G. signature/seal may be required on well log interpretation and/or cross-sections.

The CCS Workgroup explored whether wells that inject CO_2 for the purpose of geologic sequestration, posed a different risk to the public than wells that inject CO_2 for the purpose of EOR (CO_2-EOR), which are typically except from P.G. rules. The CCS Workgroup highlighted the following differences between geologic sequestration and CO_2-EOR activities:

- CO_2-EOR is conducted for an economic benefit to private industry, whereas geologic sequestration is typically not financially beneficial without financial incentives;
- CO_2-EOR has been practiced for 50+ years, whereas the public and regulators in the U.S. approach geologic sequestration as a novel application of CO_2 injection and storage technologies (Although, the workgroup notes that geologic sequestration has been practiced worldwide for 20+ years);
- CO_2-EOR typically entails smaller CO_2 injectate volumes and withdrawal from the same reservoir, as such, CO_2-EOR typically does not increase the reservoir pressure above hydrostatic, whereas geologic sequestration activities may increase reservoir pressure above hydrostatic pressure.

A third consideration was to define the similarities and differences of Class VI wells to UIC Class I injection wells, which are used for hazardous and non-hazardous industrial and municipal waste disposal. The Texas Commission on Environmental Quality (TCEQ) has primacy for UIC Class I injection wells in Texas, and the agency requires that *"all engineering and geoscience plans, specifications, calculations, analyses, reports and other related engineering and geoscience"* be prepared, sealed, signed, and dated by a P.E. and/or a P.G.

The CCS Workgroup considered the following similarities of UIC Class I and Class VI injection wells:

- The Class VI regulatory framework was based on the Class I regulatory framework, and the application and permitting processes are similar for both well classes; and
- CO_2 injected for long-term storage may be considered solid waste (but not hazardous waste) under the Resource Conservation and Recovery Act (RCRA) §1004 (27)[5].

[4] https://www.rrc.texas.gov/oil-and-gas/applications-and-permits/injection-storage-permits/oil-and-gas-waste-disposal/injection-disposal-permit-procedures/technical-review/#pressure

[5] https://archive.epa.gov/epawaste/nonhaz/industrial/geo-sequester/web/html/faqs.html#:~:text=Carbon%20dioxide%20%28CO%202%29%20is%20not%20normally%20considered,under%20the%20Resource%20Conservation%20and%20Recovery%20Act%20%28RCRA%29.

The CCS Workgroup also considered the UIC Class I and Class II regulatory framework of the Louisiana Department of Energy and Natural Resources (LDENR; formerly LDNR). In a Memorandum to Operators of Class I Industrial Waste and Class II Commercial Saltwater Injection Wells on November 12, 2020, LDENR specifies that:

> *"submittals including or comprising geoscientific work as defined in LRS 37:711.1 et seq. shall be prepared by or under the direct supervision of a licensed professional geoscientist (P.G.). All such submittals shall be sealed, signed, and dated by the licensed professional."*

1.3.1.3 P.G. signature or certification requirements for Class VI applications in other states

To further evaluate the TBPG's jurisdiction over geoscience work performed in permitting a UIC Class VI injection well, the CCS Workgroup researched the practices and policies of federal and state regulators involved in permitting Class VI injection wells. The EPA does not require a P.G. or P.E. signature/seal on Class VI permit applications.

Three states have primacy over UIC Class VI injection wells: North Dakota, Wyoming, and Louisiana. North Dakota does not specifically list a requirement for P.E. or P.G. signature/seal on their Class VI applications. Notably, North Dakota views CO_2 as a *"potentially valuable commodity"* and not a waste (North Dakota Century Code 38-22[6]). However, Wyoming and Louisiana both require P.E. and/or P.G. signatures/seals on Class VI permit applications. Arizona is seeking Class VI primacy but does not address P.E. or P.G. signatures/seals in its primacy application documents or proposed Class VI regulations.

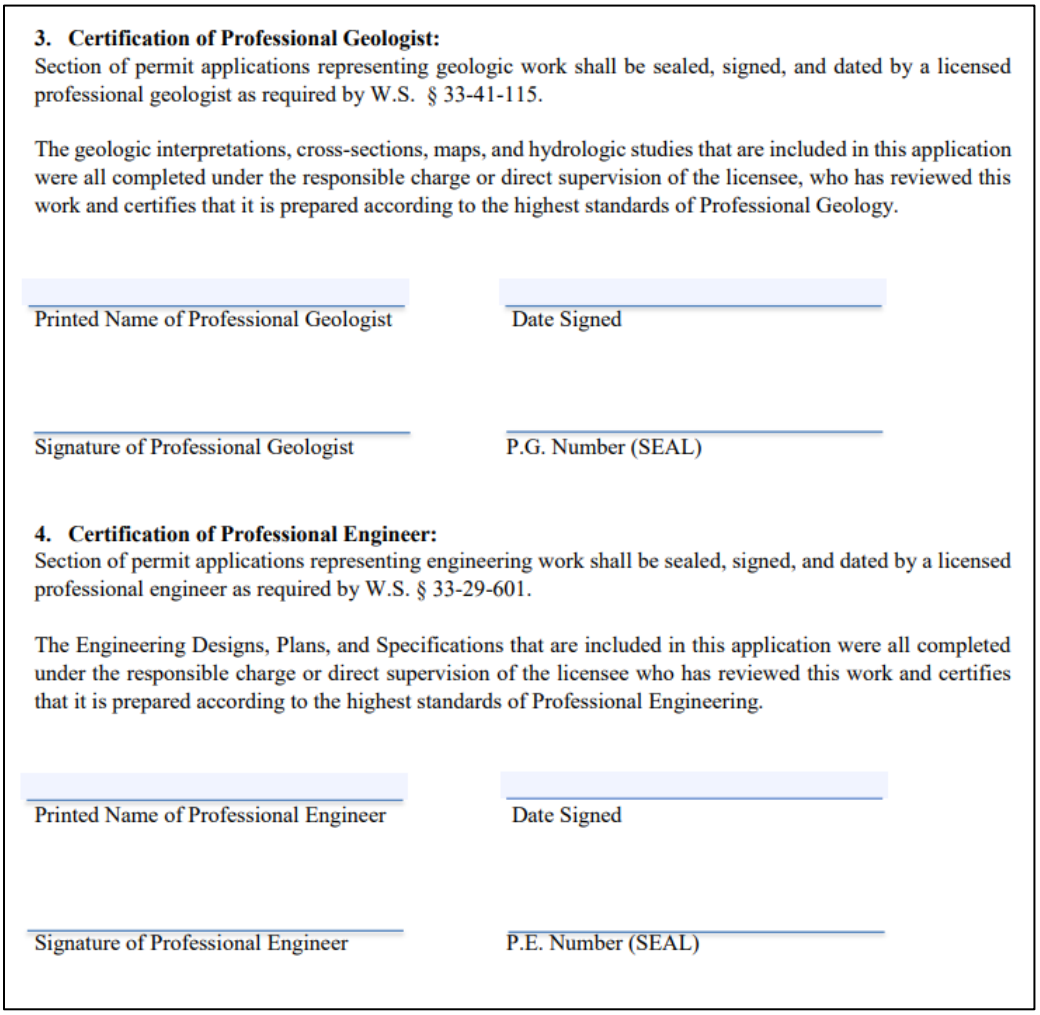
North Dakota does not have a Board of Professional Geologists. The P.G. Boards of Louisiana and Wyoming, and the Licensing Board of Arizona have not contemplated or have not released guidance for their members.

Table 1. P.G. requirements for Class VI by state board or agency.

State Board or Agency	P.G. requirements for Class VI
North Dakota Department of Environmental Quality (NDDEQ)	No requirement
North Dakota P.G.	No P.G. board in North Dakota
Wyoming Department of Environmental Quality (WDEQ)	P.G. certification on cross-sections, maps, and hydrologic studies
Wyoming P.G. Board	No opinion
Louisiana Department of Energy and Natural Resources (LDENR)	P.G. sign/seal on all geoscientific work
Louisiana P.G. Board	No opinion
Arizona Department of Environmental Quality (ADEQ)	No requirement
Arizona Licensing Board	No opinion
Railroad Commission of Texas (RRC)	P.G. or P.E. sign/seal on geologic or hydrologic evaluations and AoR delineation
TBPG	Guidance in review

[6] https://ndlegis.gov/cencode/t38c22.pdf#nameddest=38-22-02

For illustration, the WDEQ has regulatory authority over Class VI wells in Wyoming. WDEQ requires P.G. certification for geologic work products and a PE certification on engineering work products. The certification requirement is shown in the figure below from the WDEQ Water Quality Division Class VI Permit Application Signatory Authorities document issued March 25, 2024[7].



3. Certification of Professional Geologist:
Section of permit applications representing geologic work shall be sealed, signed, and dated by a licensed professional geologist as required by W.S. § 33-41-115.

The geologic interpretations, cross-sections, maps, and hydrologic studies that are included in this application were all completed under the responsible charge or direct supervision of the licensee, who has reviewed this work and certifies that it is prepared according to the highest standards of Professional Geology.

Printed Name of Professional Geologist

Date Signed

Signature of Professional Geologist

P.G. Number (SEAL)

4. Certification of Professional Engineer:
Section of permit applications representing engineering work shall be sealed, signed, and dated by a licensed professional engineer as required by W.S. § 33-29-601.

The Engineering Designs, Plans, and Specifications that are included in this application were all completed under the responsible charge or direct supervision of the licensee who has reviewed this work and certifies that it is prepared according to the highest standards of Professional Engineering.

Printed Name of Professional Engineer

Date Signed

Signature of Professional Engineer

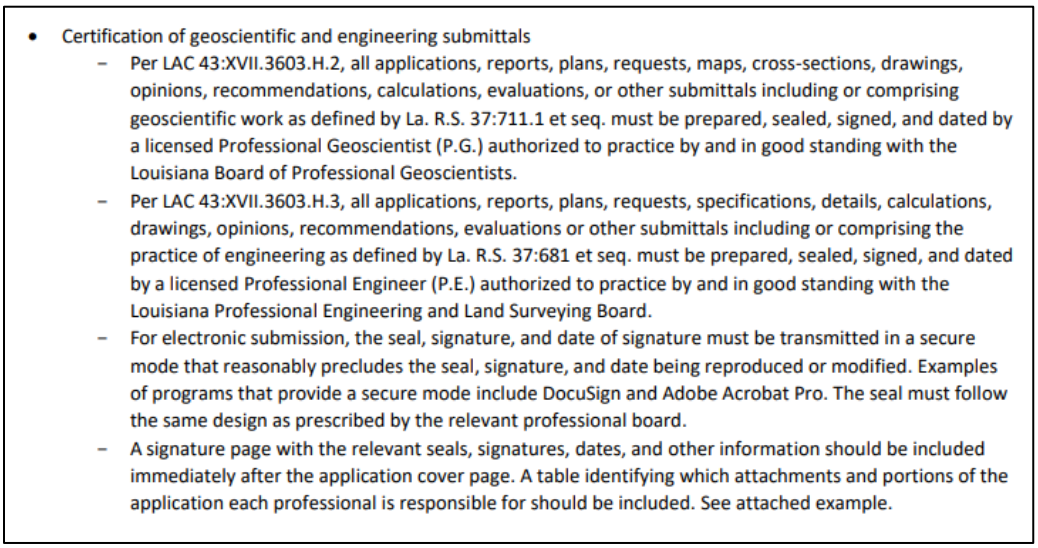
P.E. Number (SEAL)

Figure 1. Image of certification page from the Wyoming Department of Environmental Quality, Water Quality Division Class VI application updated March 25, 2024.

As another example, Louisiana obtained primacy over Class VI injection in early 2024. The UIC Class VI application[8] for Louisiana issued in April 2024 requires geoscientific work to be prepared, sealed, signed, and dated by a licensed P.G. and for engineering products to be prepared, sealed,

[7]https://deq.wyoming.gov/water-%20quality/groundwater/uic/class-vi/#:~:text=Class%20VI%20Carbon%20Capture,%20Utilization%20&
[8] https://www.dnr.louisiana.gov/assets/OC/ClassVI/ApplicantInformation/FormUIC60April2024.pdf

signed, and dated by a PE. An excerpt from the Louisiana Class VI application form is shown in Figure 2 below.



- Certification of geoscientific and engineering submittals
  - Per LAC 43:XVII.3603.H.2, all applications, reports, plans, requests, maps, cross-sections, drawings, opinions, recommendations, calculations, evaluations, or other submittals including or comprising geoscientific work as defined by La. R.S. 37:711.1 et seq. must be prepared, sealed, signed, and dated by a licensed Professional Geoscientist (P.G.) authorized to practice by and in good standing with the Louisiana Board of Professional Geoscientists.
  - Per LAC 43:XVII.3603.H.3, all applications, reports, plans, requests, specifications, details, calculations, drawings, opinions, recommendations, evaluations or other submittals including or comprising the practice of engineering as defined by La. R.S. 37:681 et seq. must be prepared, sealed, signed, and dated by a licensed Professional Engineer (P.E.) authorized to practice by and in good standing with the Louisiana Professional Engineering and Land Surveying Board.
  - For electronic submission, the seal, signature, and date of signature must be transmitted in a secure mode that reasonably precludes the seal, signature, and date being reproduced or modified. Examples of programs that provide a secure mode include DocuSign and Adobe Acrobat Pro. The seal must follow the same design as prescribed by the relevant professional board.
  - A signature page with the relevant seals, signatures, dates, and other information should be included immediately after the application cover page. A table identifying which attachments and portions of the application each professional is responsible for should be included. See attached example.

Figure 2. Louisiana Class VI application Form UIC-60 P.G. and P.E. signature requirements.

1.3.2 Evaluation of TBPG scope, regulations, costs, and benefits

1.3.2.1 Considerations for the scope of Class VI oversight

The CCS Workgroup evaluated which components of a Class VI permit application could be qualified as "public practice of geology," for which a signature/seal by a P.G. in Texas could be warranted.

The CCS Workgroup first discussed which parts of the Class VI permit application were directly related to public safety. For example, well construction and plugging and abandonment plans were deemed to be directly related to public safety. However, engineers typically prepare these documents instead of geologists. As P.G.s are not permitted to perform engineering analyses, quality control, or evaluation unless the action is supported by a P.E. (TOC 1002.004(f) and (g)). Many of the products incorporated into a Class VI permit application are jointly created by geologists and engineers. For example, a geologic static model is the base input for an engineering dynamic simulation of the CO_2 plume and pressure front movement and therefore delineation of the AoR extent. Requirements for a P.E. to sign/seal was out-of-scope for this exercise. However, the CCS Workgroup discussed the value in the TBPE performing a similar evaluation.

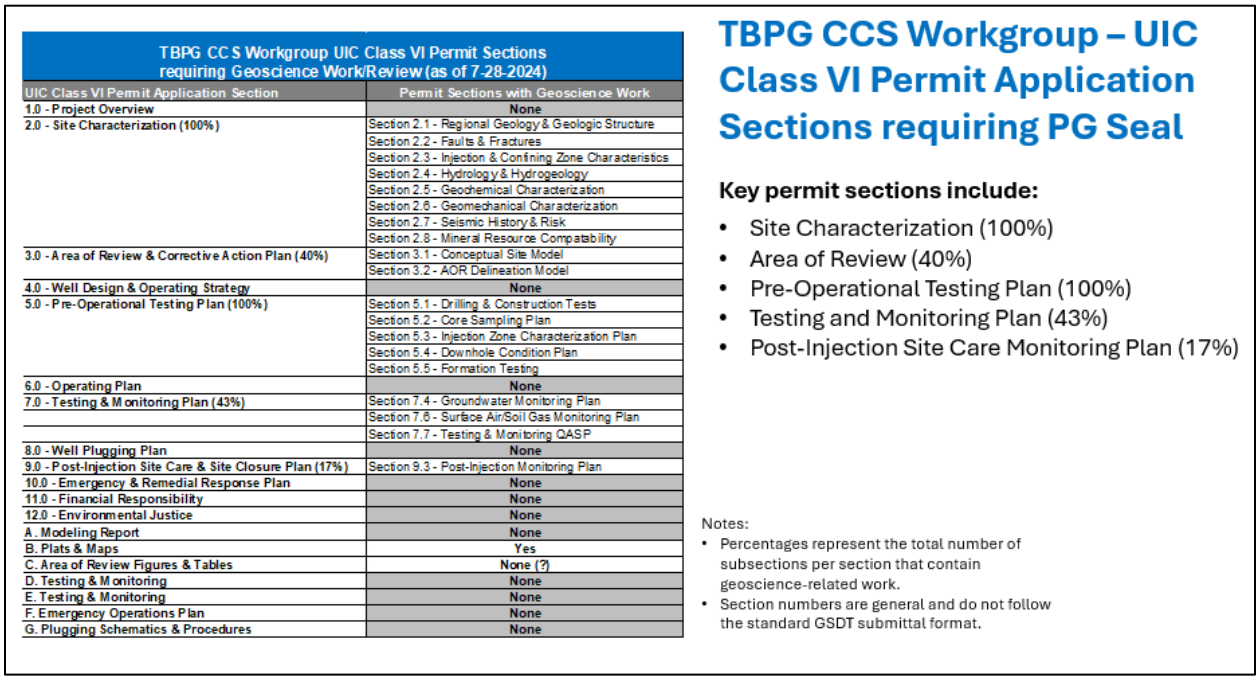
The CCS Workgroup next discussed which parts of the Class VI permit application were directly related to geoscientific work. TBPG Guidance Document No. 1[9] lists the types of documents that

[9] https://tbpg.state.tx.us/wp-content/uploads/2020/02/GuidanceDoc-020620.pdf

could be signed and sealed by a P.G. The list below identifies some of those products that may be included in a Class VI permit application:

- Cross sections displaying geoscience data, including geological and/or geophysical parameters;
- Contoured drawings, such as potentiometric surface maps, isopach maps, and subsurface data;
- Groundwater modeling;
- Surface and availability studies;
- Geoscientific components of groundwater management plans;
- Soil boring logs and well logs;
- Soil, lithology, and/or geophysical maps;
- Interpretation of geophysical surveys;
- Static geologic model; and
- Interpretations, conclusions, and recommendations for further action(s) based on these data.

As shown below on Figure 3, the CCS Workgroup concludes that the following sections of Class VI permit applications qualify as geoscientific work product:



TBPG CCS Workgroup UIC Class VI Permit Sections requiring Geoscience Work/Review (as of 7-28-2024)

UIC Class VI Permit Application Section	Permit Sections with Geoscience Work
1.0 - Project Overview	None
2.0 - Site Characterization (100%)	Section 2.1 - Regional Geology & Geologic Structure
	Section 2.2 - Faults & Fractures
	Section 2.3 - Injection & Confining Zone Characteristics
	Section 2.4 - Hydrology & Hydrogeology
	Section 2.5 - Geochemical Characterization
	Section 2.6 - Geomechanical Characterization
	Section 2.7 - Seismic History & Risk
	Section 2.8 - Mineral Resource Compatability
3.0 - Area of Review & Corrective Action Plan (40%)	Section 3.1 - Conceptual Site Model
	Section 3.2 - AOR Delineation Model
4.0 - Well Design & Operating Strategy	None
5.0 - Pre-Operational Testing Plan (100%)	Section 5.1 - Drilling & Construction Tests
	Section 5.2 - Core Sampling Plan
	Section 5.3 - Injection Zone Characterization Plan
	Section 5.4 - Downhole Condition Plan
	Section 5.5 - Formation Testing
6.0 - Operating Plan	None
7.0 - Testing & Monitoring Plan (43%)	Section 7.4 - Groundwater Monitoring Plan
	Section 7.6 - Surface Air/Soil Gas Monitoring Plan
	Section 7.7 - Testing & Monitoring QASP
8.0 - Well Plugging Plan	None
9.0 - Post-Injection Site Care & Site Closure Plan (17%)	Section 9.3 - Post-Injection Monitoring Plan
10.0 - Emergency & Remedial Response Plan	None
11.0 - Financial Responsibility	None
12.0 - Environmental Justice	None
A. Modeling Report	None
B. Plats & Maps	Yes
C. Area of Review Figures & Tables	None (?)
D. Testing & Monitoring	None
E. Testing & Monitoring	None
F. Emergency Operations Plan	None
G. Plugging Schematics & Procedures	None

Figure 3. TBPG CCS Workgroup determination of UIC Class VI Permit Application sections that may be signed/sealed by a P.G.

1.3.2.2 Current regulations of TBPG

The TBPG is authorized in TOC 1002.151 to: *"adopt and enforce rules…necessary for the performance of its duties."* The CCS Workgroup concluded that if CCS is *"public practice of geoscience"* and that the TBPG has jurisdiction over the *"public practice of geoscience,"* therefore the TBPG can adopt and enforce rules to perform its oversight of P.G.'s performing geoscience work performed for Class VI well application activities (TOC 1002.151; TOC 1002.351(2)(b).

1.3.2.3 Costs / benefits to industry

The CCS Workgroup explored the impacts, costs, and benefits of having P.G. signatures/seals on Class VI permit applications. The CCS Workgroup identified that a diverse mix of companies are preparing Class VI permits, including environmental consulting firms and oil and gas operators. While environmental consultants commonly have one or more P.G. on staff, oil and gas operators do not have P.G.s because most oil and gas activities are not the *"public practice of geology."* Therefore, requirements for P.G. signature/seal on Class VI permit applications could pose a challenge to companies that do not have any P.G.s.

The CCS Workgroup also explored how P.G. signature/seal requirements could benefit the RRC by holding professionals accountable for the technical quality of a Class VI permit application. P.G. signature/seal requirements could foster higher technical quality and more rigorous analysis. Furthermore, some components of the application are directly relevant to the public's health and safety: well construction and cementing, P&A procedures, groundwater monitoring and pressure front modeling for example.

1.3.2.4 Costs / benefits to TBPG

A decision to require P.G. signatures/seals on Class VI permit applications is expected to have a minor administrative impact on the TBPG. It is likely that more geologists, especially those transitioning from oil and gas work to CCS work, will seek licensure. This will result in a minor increase in administrative burden for licensing review. In addition, the TBPG is expected to see a minor increase in administration costs related to compliance and enforcement. On the contrary, an increase in P.G. licensure will provide more funds to the TBPG through an increase in licensing application and renewal fees.

1.3.2.5 Other impacts: P.G. liability

The extent of P.G. liability and potential P.G. protections was a key question raised by the CCS Workgroup when considering the question of which sections of a Class VI permit application should be signed/sealed by a P.G. in Texas. The CCS Workgroup considered several hypothetical scenarios in which a P.G.'s liability might be challenged. A full legal analysis of the potential claims and defenses available to a P.G. under numerous hypothetical liability scenarios is beyond the scope of this report and would require substantial legal evaluation and interpretation. The CCS Workgroup concluded that P.G. liability and potential protections (for example, those currently

afforded to P.E.s, Tex. Civ. Prac. & Rem. Code § 150.002) are important and are recommended for further evaluation.

1.4 CCS Workgroup Conclusions and Recommendations

The following table summarizes the conclusions of the CCS Workgroup.

Table 2. Key conclusions and recommendations of the CCS Workgroup

CCS Workgroup Question	CCS Workgroup Conclusion/Recommendation
Define whether the TBPG has jurisdiction for geoscience work performed in the permitting a Class VI well.	Class VI permitting may be considered "practice for the public" to comply with the Chapter 5 rule set by the RRC. The TBPG has the oversight for the "public practice of geoscience" therefore the TBPG may utilize its oversight to recommend P.G. signatures/seals to be included on Class VI permit applications and to recommend which sections of a Class VI permit application warrant a P.G. signature/seal.
Define the scope of TBPG's oversight.	The TBPG may recommend geoscience work products included in a Class VI permit application be signed/sealed by a P.G. in Texas.
Determine if additional regulation is required for TBPG to perform their oversight?	No additional regulations are required.
Identify costs/benefits to the industry of the oversight.	Costs to the industry include increased burden to obtain P.G. licenses. Benefits to the industry include an expected standard for high technical quality and consistency.
Identify costs/benefits to TBPG of the oversight.	The TBPG may experience an increase in administrative work related to new P.G.s and new firms and potential compliance administration; however, this would be offset by an increase in license application and renewal fees.

1.4.1 Define whether the TBPG has jurisdiction for P.G.'s performing geoscience work related to permitting and construction of a Class VI well

Yes, the TBPG has jurisdiction for P.G.'s performing geoscience work for the public. Therefore, the TBPG has the authority to adopt and enforce rules to perform its oversight of P.G.'s performing geoscience work performed for Class VI well application activities (TOC 1002.151; TOC 1002.351(2)(b).

1.4.2 Define the scope of TBPG's oversight

The TBPG oversight of P.G.'s is consistent with existing rules in TOC 1002 and will not require expanded oversight. However, the TBPG may recommend to RRC which work products be signed/sealed by a P.G.

1.4.3 Is additional regulation required for TBPG to perform their oversight?

No, the TBPG has the authority to advise and provide guidance to P.G.'s performing Class VI well application activities. The existing rules require that a person in responsible charge of geoscience work performed to comply with a state or federal law be a licensed P.G. (TOC 1002.251(c)).

1.4.4 Identify costs/benefits to industry of TBPG oversight

The CCS Workgroup identified two key costs to industry. (1) Some developers and operators of Class VI projects do not have P.G.'s on staff, because most oil and gas activities are exempt from the "public practice of geology." Obtaining P.G. signatures/seals for Class VI permit applications will require applicants to incur the cost/time burden of obtaining P.G. licensure and/or hiring a 3rd party to sign/seal applications. (2) P.G.s who sign/seal Class VI permit applications may be exposed to a higher level of professional risk than for other geoscience products performed for the public, because Class VI geologic sequestration activities are new to the public and there are few operational projects available to build the public's trust in the technology.

P.G. signing/sealing is expected to result in high technical-quality and consistent Class VI permit applications. This is the key industry benefit identified by the CCS Workgroup. High technical quality is important in building public trust and protecting the public.

1.4.5 Identify costs/benefits to TBPG of oversight

The CCS Workgroup identified that a minor increase in administrative oversight may be required by including Class VI geoscience activities within its scope of oversight. The administrative cost may result from additional geoscientists seeking and obtaining P.G. licensure and from additional compliance and enforcement administration. Conversely, adding additional P.G.s is also a benefit to TBPG's longer-term growth, as it will promote P.G. licensure and provide an increase in funds to the TBPG (i.e., additional licensing application and renewal fees).

1.4.6 Key recommendations

The CCS Workgroup recommends that the TBPG provide guidance to RRC on which sections (see Figure 3 above) of the UIC Class VI permit application should be signed/sealed by a P.G., consistent with the cooperation provisions specified in TOC 1002.157(6).

The CCS Workgroup recommends P.G.s sign/seal sections of the Class VI permit application that primarily contain geoscience work products. The signing/sealing could be accomplished by a statement at the beginning of the application highlighting the sections to which the signature/seal pertain, or by signing/sealing individual sections and products.

1.4.7 Other recommendations

1.4.7.1 Professional Engineering Involvement

Although P.E. signing/sealing was beyond the scope of this CCS Workgroup, the TBPE is encouraged to consider the role of a P.E. in preparing a Class VI permit application.

1.4.7.2 Clarification of Exemption

The CCS Workgroup concludes that Class VI permit applications are required to be submitted to the RRC and therefore are considered "practice for the public," as described in Texas Occupations Code (TOC) 1002.002(6)(A)(i) and (ii). However, the CCS Workgroup contemplated the intent of the exemption provision stated in the same section in TOC 1002.002(6)(B): *"Practice for the public… does not include services provided for the express use of a firm or corporation by an employee or consultant if the firm or corporation assumes the ultimate liability for the work product."* The CCS Workgroup recommends that the TPBG clarify the terms "express use for a firm" and "ultimate liability."