

FINANCIAL RESPONSIBILITY DEMONSTRATION 40 CFR 146.85

FRONT RANGE STORAGE COMPLEX

Facility Information

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Front Range 1-1

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List of Acronyms and Abbreviations

CSS = Carbon Storage Solutions, LLC GSDT = Geologic Sequestration Data Tool K = thousand MM = million PISC = Post-Injection Site Care	UIC = Underground Injection Control USD = United States Dollar USDW = Underground Source of Drinking Water US EPA = United States Environmental Protection Agency
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C.1. Summary

Carbon Storage Solutions, LLC (CSS) provides a demonstration of financial responsibility pursuant to 40 CFR 146.82(a)(14) and 146.85. No financial instrument for corrective action is needed to satisfy the requirement of 40 CFR 146.85(a)(2)(i) since no corrective action needs have been identified – see Section B.5 of the Area of Review and Corrective Action Plan for additional discussion. A combination of instruments (i.e., surety bonds and insurance) from qualified institutions are utilized to demonstrate financial responsibilities for well plugging and abandonment, post-injection site care (PISC) and site closure, and emergency and remedial response, which when considered as a whole sufficiently addresses the potential endangerment of underground source of drinking water (USDW) per 40 CFR 146.85(a)(3). The coverage of each instrument meets/exceeds the estimated cost for performing the work by a qualified independent third-party, where per 40 CFR 146.85(c)(1) the independent third party is neither a parent nor a subsidiary of the owner or operator.

Table C.1-1 summarizes the estimated costs for performing each activity, and the financial instrument used to demonstrate financial responsibility for each activity.

C.2. Corrective Action

Section B.5 of the Area of Review and Corrective Action Plan did not identify any natural or artificial confining zone penetrations within the Area of Review that require corrective action, thus no financial instrument is required to satisfy the financial responsibility requirement of 40 CFR 146.85(a)(2)(i).

C.3. Well Plugging and Abandonment

The costs for plugging and abandonment of the injection well and injection zone monitoring well are estimated by a third-party industry expert using the scope of work defined in the Injection Well Plugging Plan and Post-Injection Site Care and Site Closure Plan, combined with their knowledge of current costs for comparable goods and services, and guided by the methodology and checklist provided in Appendix C and Appendix D of the United States Environmental Protection Agency (US EPA) Underground Injection Control (UIC) Program Class VI Financial Responsibility Guidance document (EPA 2011). The cost estimates were originally established in 2024 dollars and will be adjusted annually for inflation per 40 CFR 146.85(c)(2). The cost estimate basis assumes an independent third party is contracted to perform the work, where per 40 CFR 146.85(c)(1) the independent third party is neither a parent nor a subsidiary of the owner or operator.

CSS proposes the use of two financial surety bonds to guarantee performance of well plugging and abandonment for Front Range 1-1 and Front Range 2-1 (one bond per well). These instruments meet the following required specifications given in Section 5. Conditions of Coverage and Specifications for Financial Responsibility Demonstrations C. Surety bond guaranteeing performance of injection well plugging and abandonment of the US EPA UIC Program Class VI Financial Responsibility Guidance document (EPA 2011):

1. Under 40 CFR 146.85(a)(6)(ii), CSS provides proof the surety passes financial strength requirements based on the surety's bond capacities and an A.M. Best Credit Ratio of A⁺⁺ and a Financial Size Category of XV (Greater than or Equal to United States Dollar [USD] 2.00 Billion). Furthermore, the surety is listed in the current revision of the United States Department of Treasury Circular 570 as a company that holds a Certificate of Authority as Acceptable Sureties on Federal Bonds and as an Acceptable Reinsuring Company¹.
2. Under 40 CFR 146.85(a)(6)(iii), CSS establishes a standby trust per the terms of the surety contract that enables the US EPA to be party to the financial responsibility agreement without the US EPA being the beneficiary of any funds.
3. As specified at 40 CFR 146.85(a)(2), the penal sum (aka coverage) of the bond will be in an amount at least equal to the current cost estimate, except as provided in Section H. "Use of multiple financial instruments" of the US EPA UIC Program Class VI Financial Responsibility Guidance document (EPA 2011). Table C.1-1 summarizes the coverage for the instrument, which is initially set at the anticipated cost for performing the work in 2024, which will be adjusted for inflation over time using the Oil & Gas Field Machinery and Equipment Producer Price Index as published by the United States Bureau of Labor Statistics². The coverage of the surety bond will also be adjusted as needed over time to ensure the coverage always meets/exceeds the estimated cost for performing the work over the lifetime of the project.

¹ See Department Circular 570: 2023 Revision at: <https://www.fiscal.treasury.gov/surety-bonds/circular-570.html>

² See: <https://beta.bls.gov/dataViewer/view/timeseries/PCU333132333132>

CSS will work collaboratively with US EPA during the technical review period to finalize the surety contract, then enter into binding coverage prior to issuance of the Permit-to-Construct. The recommended specifications for the financial instrument given in Section 5. Conditions of Coverage and Specifications for Financial Responsibility Demonstrations C. Surety bond guaranteeing performance of injection well plugging and abandonment of the US EPA UIC Program Class VI Financial Responsibility Guidance document (EPA 2011) will be taken into consideration as CSS works with US EPA to finalize the surety contracts.

C.4. Post-Injection Site Care and Site Closure

The costs for PISC and site closure were estimated by a third-party industry expert using the scope of work defined in the Post-Injection Site Care and Site Closure Plan, combined with their knowledge of current costs for comparable goods and services, and guided by the methodology provided in Appendix C of the US EPA UIC Program Class VI Financial Responsibility Guidance document (EPA 2011). The cost estimate was originally established in 2024 dollars and will be adjusted annually for inflation per 40 CFR 146.85(c)(2). The cost estimate basis assumes an independent third-party is contracted to perform the work, where per 40 CFR 146.85(c)(1) the independent third party is neither a parent nor a subsidiary of the owner or operator.

CSS proposes the use of a surety bond with standby trust that guarantees payments for PISC and site closure costs. This instrument meets the following required specifications given in Section 5. Conditions of Coverage and Specifications for Financial Responsibility Demonstrations B. Surety bond guaranteeing payment into a trust fund of the US EPA UIC Program Class VI Financial Responsibility Guidance document (EPA 2011):

1. Under 40 CFR 146.85(a)(6)(ii), CSS provides proof the surety passes financial strength requirements based on the surety's bond capacities and an A.M. Best Credit Rating of A⁺ (Excellent) and a Financial Size Category of XV (Greater than or Equal to USD 2.00 Billion) per the letter of support submitted through the Geologic Sequestration Data Tool (GSDT) Financial Responsibility Demonstration module. Furthermore, the surety is listed in the current revision of the U.S. Department of Treasury Circular 570 as a company that holds a Certificate of Authority as Acceptable Sureties on Federal Bonds and as an Acceptable Reinsuring Company³.
2. Under 40 CFR 146.85(a)(6)(iii), CSS establishes a standby trust per the terms of the surety contract that enables the US EPA to be party to the financial responsibility agreement without the US EPA being the beneficiary of any funds.
3. As specified at 40 CFR 146.85(a)(2), the penal sum (aka coverage) of the bond will be in an amount at least equal to the current cost estimate, except as provided in Section H. "Use of multiple financial instruments" of the US EPA UIC Program Class VI Financial Responsibility Guidance document (EPA 2011). Table C.1-1 summarizes the coverage for the instrument, which is initially set at the anticipated cost for performing the work in 2024,

³ See Department Circular 570: 2023 Revision at: <https://www.fiscal.treasury.gov/surety-bonds/circular-570.html>

which will be adjusted for inflation over time using the Oil & Gas Field Machinery and Equipment Producer Price Index as published by the United States Bureau of Labor Statistics⁴. The coverage of the surety bond will also be adjusted as needed over time to ensure the coverage always meets/exceeds the estimated cost for performing the work over the lifetime of the project.

CSS will work collaboratively with US EPA during the technical review period to finalize the surety contract, then enter into binding coverage prior to issuance of the Permit-to-Construct. The recommended specifications for the financial instrument given in Section 5. Conditions of Coverage and Specifications for Financial Responsibility Demonstrations B. Surety bond guaranteeing payment into a trust fund of the US EPA UIC Program Class VI Financial Responsibility Guidance document (EPA 2011) will be taken into consideration as CSS works with US EPA to finalize the surety contract.

C.5. Emergency and Remedial Response

The cost for emergency and remedial response was estimated by a third-party industry expert using the scope of work defined in the Emergency and Remedial Response Plan, combined with their knowledge of current costs for comparable goods and services, and guided by the methodology provided in Appendix C of the US EPA UIC Program Class VI Financial Responsibility Guidance document (EPA 2011). The cost estimate was originally established in 2023 dollars and will be adjusted annually for inflation per 40 CFR 146.85(c)(2). The cost estimate basis assumes an independent third-party is contracted to perform the work, where per 40 CFR 146.85(c)(1) the independent third party is neither a parent nor a subsidiary of the owner or operator.

CSS proposes the use of an insurance policy with an independent third-party insurer to guarantee performance of emergency and remedial response (including endangerment to USDWs). This instrument meets the following required specifications given in Section 5. Conditions of Coverage and Specifications for Financial Responsibility Demonstrations E. Insurance of the US EPA UIC Program Class VI Financial Responsibility Guidance document (EPA 2011):

1. Under 40 CFR 146.85(a)(6)(ii), CSS provides proof the insurer passes financial strength requirements based on a Standard & Poor's credit rating of A, stable, as well as an A.M. Best Credit Rating of A and a Financial Size Category of XV per the letter of support submitted through the GSDT Financial Responsibility Demonstration module.
2. Under 40 CFR 146.85(a)(6)(vii), CSS asserts the insurer is a third party.
3. As specified at 40 CFR 146.85(a)(2), the insurance policy is issued for a face amount at least equal to the current cost estimate, except as provided in Section H. "Use of multiple financial instruments" of the US EPA UIC Program Class VI Financial Responsibility Guidance document (EPA 2011). The term "face amount" means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will not change the face

⁴ See: <https://beta.bls.gov/dataViewer/view/timeseries/PCU333132333132>

amount, although the insurer's future liability Table C.1-1 summarizes the coverage for the instrument, which is initially set at roughly 2 times the anticipated cost for performing the work in 2024. The coverage of the policy will be adjusted as needed over time to ensure the coverage always meets/exceeds the estimated cost for performing the work over the lifetime of the project.

CSS will work collaboratively with US EPA during the technical review period to finalize the insurance contract, then enter into binding coverage prior to issuance of the Permit-to-Construct. The recommended specifications for the financial instrument given in Section 5. Conditions of Coverage and Specifications for Financial Responsibility Demonstrations E. Insurance of the US EPA UIC Program Class VI Financial Responsibility Guidance document (EPA 2011) will be taken into consideration as CSS works with US EPA to finalize the insurance contract.

C.6. References

EPA 2011, Geologic Sequestration of Carbon Dioxide: Underground Injection Control (UIC) Program Class VI Financial Responsibility Guidance, Office of Water (4606M), EPA 816-R-11-005, July 2011. Available at:
https://www.epa.gov/system/files/documents/2022-11/uicfinancialresponsibilityguidancefinal072011v_0.pdf.