

Date of Hearing: June 26, 2023

ASSEMBLY COMMITTEE ON NATURAL RESOURCES

Luz Rivas, Chair

SB 438 (Caballero) – As Amended June 6, 2023

**SENATE VOTE:** 38-0

**SUBJECT:** Carbon sequestration: Carbon Capture, Removal, Utilization, and Storage Program: incidental and unintentional residual oil production

**SUMMARY:** Establishes an exception from the ban on enhanced oil recovery from a carbon dioxide (CO<sub>2</sub>) capture, removal, or sequestration project by providing that the incidental and unintentional production of residual oil from a geologic sequestration (i.e., “Class VI”) well does not violate the ban.

**EXISTING LAW:**

- 1) Requires the Air Resources Board (ARB), on or before January 1, 2025, to adopt regulations for a unified permit application for the construction and operation of CO<sub>2</sub> capture, removal, or sequestration projects to expedite the issuance of permits or other authorizations for the construction and operation of those projects. (Health and Safety Code (HSC) 39741.2)
- 2) Requires a state agency to use the unified permit application when issuing a permit or other authorization for the construction and operation of a CO<sub>2</sub> capture, removal, or sequestration project, as specified.
- 3) Prohibits a well operator from injecting a concentrated CO<sub>2</sub> fluid produced by a CO<sub>2</sub> capture, removal, or sequestration project into a Class II injection well for purposes of enhanced oil recovery, as provided. (Public Resources Code (PRC) 3132)
- 4) Defines a “Class II well” by referencing the definition in Section 144.6 of Title 40 of the Code of Federal Regulations. (PRC 3130)

**THIS BILL:**

- 1) Provides that any incidental and unintentional residual oil produced at the surface from a Class VI well resulting from the injection of a concentrated CO<sub>2</sub> fluid into a Class VI well during the execution of a CO<sub>2</sub> capture, removal, or sequestration project is not considered enhanced oil recovery.
- 2) Prohibits the sale, barter, exchange, or trade of any incidental and unintentional residual oil produced at the surface by the CO<sub>2</sub> capture, removal, or sequestration project.
- 3) Requires any oil produced from a Class VI well to be reported to ARB and the United States Environmental Protection Agency (USEPA), Region 9, within 60 days of its production.
- 4) Defines “Class VI well” by referencing the definition in Section 144.6(f) of Title 40 of the Code of Federal Regulations.

**FISCAL EFFECT:** According to the Senate Appropriations Committee, pursuant to Senate Rule 28.8, negligible state costs.

**COMMENTS:**

- 1) **Background.** To address climate change, the state has established ambitious greenhouse gas (GHG) emissions reductions goals, among other policies promoting or requiring decarbonization. The California Climate Crisis Act declares state policy to achieve net zero GHG emissions no later than 2045, and to achieve and maintain net negative GHG emissions thereafter [AB 1279, (Muratsuchi), Chapter 337, Statutes of 2022]. Current planning scenarios by ARB (i.e., the 2022 Scoping Plan Update) identify the need to utilize carbon capture, utilization, and sequestration (CCUS) projects to remove and sequester 20 million metric tons of CO<sub>2</sub> by 2030 and 100 million metric tons of CO<sub>2</sub> by 2045 to achieve the state's carbon neutrality goals.

Among the best known types of CCUS projects are those that provide for the injection of concentrated CO<sub>2</sub> fluids into deep underground geologic reservoirs for permanent/quasi-permanent sequestration. Scientific experts estimate that there are many possible locations statewide where underground geologic reservoirs are suitable for carbon sequestration. The wells used to inject into these reservoirs are Class VI Underground Injection Control (UIC) program wells, which are permitted by the USEPA in California. There are seven project applications for approximately 30 Class VI permits pending before US EPA Region 9.

AB 1279 was one of seven bills adopted by Governor Newsom as part of a “climate package” near the end of the 2021/2022 Legislative session to further advance the state's decarbonization efforts. Six of the seven bills passed the Legislature and were signed into law.

Another of the climate package bills was SB 905 (Caballero/Skinner), Chapter 359, Statutes of 2022, which sought to promote the use of carbon capture, removal, utilization, and storage (CCRUS) technologies by requiring ARB to establish a CCRUS program, and to adopt regulations by January 1, 2025 for a model unified permit program for the construction and operation of CCRUS projects.

SB 905 included numerous other provisions including a prohibition on the use of concentrated CO<sub>2</sub> from CO<sub>2</sub> capture, removal, or sequestration project for enhanced oil recovery (EOR), among others.

EOR is the application of heat or pressure to an oil reservoir to facilitate the recovery of oil. In general, a fluid, such as water or steam, is injected into the oil reservoir using an injection well and then the oil/water mix is produced using the same well or another one. Injection wells used for oil and gas production are a different class of UIC well than those used to inject concentrated CO<sub>2</sub> fluids for permanent geologic storage. Oil and gas production-related injection wells are Class II UIC wells. As noted above, SB 905, as well as SB 1314 (Limón), Chapter 336, Statutes of 2022, another climate package bill, prohibit the use of CCUS for EOR.

After SB 905 passed the concurrence vote in the Senate, Senator Caballero submitted a Letter to the Journal noting, among other things, the possibility that residual subsurface oil may be unintentionally expelled when a concentrated carbon stream is injected into a geologic reservoir for sequestration and that SB 905 did not intend to capture incidental and unintentional residual oil expulsion in its definition of EOR.

2) **Author's statement:**

On September 16th, 2022, Governor Newsom signed into law SB 905, as part of the historic climate package, establishing breakthrough policy for CCRUS application. Since then, there have been several provisions brought to my attention that require clarification in order to avoid hindrance of current projects, and unintentional penalties. Senate Bill 438 builds upon SB 905 in an effort to clarify intent and ensure proper implementation. Specifically, the bill clarifies that residual oil expressed without oil production equipment is not penalized, and includes reporting requirements when incidents do occur. SB 438 is consistent with last year's efforts and will allow California to continue its work on carbon emission reduction as intended.

3) **What bill are we talking about?** The two support letters on this bill make no mention of what the bill actually does, and instead make vague reference to “establishing a positive regulatory framework” (SoCalGas) and “ensur(ing) that critically needed...technologies can be expeditiously deployed” (Carbon Solutions Coalition).

Meanwhile, a coalition of environmental justice advocates primarily focus their objections on provisions that are not in the bill. These groups contend that the language in the bill is non-substantive and unnecessary, and further argue:

While apparently modest in scope, we object to this bill's apparent intent, namely to speed investment into a climate dead end: carbon capture, use, and storage. Further, we expect the bill to be amended to undo one of the most important community protections that the environmental justice movement secured during last year's climate negotiations: the moratorium on carbon pipelines until the federal rulemaking concludes.

**REGISTERED SUPPORT / OPPOSITION:**

**Support**

California Carbon Solutions Coalition  
Southern California Gas Company

**Opposition**

350 Bay Area Action  
Asian Pacific Environmental Network  
Center for Biological Diversity  
Center on Race, Poverty & the Environment  
Central California Asthma Collaborative

Central California Environmental Justice Network  
Central Valley Air Quality Coalition  
Indigenous Environmental Network  
Leadership Counsel for Justice and Accountability  
Little Manila Rising  
Physicians for Social Responsibility - Los Angeles  
Physicians for Social Responsibility - San Francisco Bay Area Chapter  
Sunflower Alliance  
Valley Improvement Projects

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