

CONCURRENCE IN SENATE AMENDMENTS

AB 881 (Petrie-Norris)

As Amended August 28, 2025

Majority vote

SUMMARY

Directs the Office of the State Fire Marshal (OSFM) to adopt regulations governing the safe transportation of carbon dioxide (CO₂) in pipelines. Specifically,

- 1) Directs the OSFM, by July 1, 2026, to adopt regulations governing the safe transportation of CO₂ in pipelines that are at a minimum as protective as the draft federal regulations set forth in the unofficial version of the Notice of Proposed Rulemaking issued by the federal Pipeline and Hazardous Materials Safety Administration (PHMSA) on January 10, 2025, pursuant to rulemaking (RIN 2137-AF60) regarding the minimum federal safety standards for transportation of CO₂ by pipeline.
- 2) Allows a pipeline to be used to transport CO₂ to or from a CO₂ capture, removal or sequestration project only after the OSFM adopts regulations and the CO₂ capture, removal or sequestration project operator demonstrates that the pipeline meets the standards in those regulations.
- 3) Directs the Office of Administrative Law (OAL) to consider adoption of the initial regulations as an emergency, and necessary for the immediate preservation of the public peace, health, safety and general welfare to remain in effect until amended by the OSFM.
- 4) States the regulations shall apply to newly constructed CO₂ pipelines after the effective date of the regulations or amendments to them. Existing CO₂ pipelines prior to the effective date of the regulations shall comply within a timeframe specified by the OSFM. Prohibits a pipeline originally constructed to transport any other liquid or gas from being approved for CO₂ transport.
- 5) Authorizes the OSFM to amend the regulations to protect public health and welfare and the environment and directs the OSFM, at least once every five years, to assess the CO₂ pipeline safety standards.
- 6) Defines "sensitive receptor" and requires operators of CO₂ pipelines to submit to OSFM and the lead California Environmental Quality Act (CEQA) agency for the pipeline project an emergency planning zone inventory and detailed map that includes a list of all sensitive receptors within the emergency planning zone that encompasses the pipeline, among other requirements.
- 7) Requires the inventory and maps to be shared with local emergency response entities at least once every three years, to the identified sensitive receptors annually, and published online once personally identifiable information is redacted.
- 8) Requires the lead agency, as part of the CEQA environmental impact report for construction of a CO₂ pipeline, to provide a notice to owners and operators of sensitive receptors within one-quarter mile of the proposed pipeline and to the OSFM, as specified.

Senate Amendments

- 1) Add various definitions, including "emergency planning zone" and "sensitive receptor;" and an exclusion to the definition of "pipeline" for CO₂ transportation through piping and equipment used in production.
- 2) Specify that the adopting of OSFM regulations shall occur on or before July – rather than April – 2026; and that the regulations shall be "as protective as" – rather than "equivalent to" – the draft federal regulations from PHMSA in January 2025.
- 3) Exempt OSFM CO₂ regulations from "major regulation" designation and standardized regulatory impact analyses requirements.
- 4) Specify that pipelines permitted prior to July 1, 2025, and transporting CO₂ within a single facility or property are not required to comply with OSFM regulations pertaining to the design and construction of the pipeline, if the pipeline is constructed to meet the draft PHMSA January 2025, regulations.
- 5) Require OSFM, at least once every five years, to assess the safety standards of the CO₂ regulations, and update them as warranted.
- 6) Prohibit pipelines originally constructed to transport any other liquid or gas and pipelines constructed of previously used pipe or components from transporting CO₂.
- 7) Requires operators of CO₂ pipelines to submit to OSFM and the lead CEQA agency for the pipeline project an emergency planning zone inventory and detailed map that includes a list of all sensitive receptors within the emergency planning zone that encompasses the pipeline, among other requirements.
- 8) Requires the inventory and maps to be shared with local emergency response entities at least once every three years, to the identified sensitive receptors annually, and published online once personally identifiable information is redacted.
- 9) Requires OSFM to use money from civil penalties for gas response and suppression training for first responders.
- 10) Mandates CO₂ pipelines to remain nonoperational in the event of a rupture until an investigation is complete. Requires OSFM to determine if or when a pipeline may resume operations.
- 11) Updates statutory reference to definitions related to the State Water Resources Control Board regulations of safe drinking water standards.
- 12) Requires the lead agency, as part of the CEQA environmental impact report for construction of a CO₂ pipeline, to provide a notice to owners and operators of sensitive receptors within one-quarter mile of the proposed pipeline and to the OSFM, as specified.

COMMENTS

According to the California Air Resources Board's (CARB's) "2022 Scoping Plan for Achieving Carbon Neutrality," carbon capture and sequestration (CCS) will be a necessary tool to reduce

GHG emissions and mitigate climate change while minimizing leakage and reducing emissions where no technological alternatives may exist.

State law requires CARB to establish a Carbon Capture, Removal, Utilization, and Storage Program for a unified permit application for the construction and operation of CO₂ capture, removal, or sequestration projects. However, state law prohibits a pipeline from being used to transport CO₂ to or from a CO₂ capture, removal, or sequestration project until PHMSA has concluded its rulemaking regarding minimum federal safety standards for transportation of CO₂ by pipeline and the CO₂ project operator demonstrates that the pipeline meets those standards.

Currently, PHMSA has only established safety standards regarding the transport of CO₂ in a supercritical state at a concentration of 90% or higher. The transport of CO₂ in concentrations of less than 90%, or in liquid or gas form is unregulated. PHMSA has noted this regulatory gap is due to the limited (supercritical-phase only) CO₂ pipelines in operation in 1991 during the creation of the original federal rules.

Following the rupture of a pipeline transporting CO₂ as part of an enhanced oil recovery operation in Satartia, Mississippi, in February 2022, which led to local evacuation and the hospitalization of 46 people, PHMSA began updating its CO₂ pipeline safety standards. On January 10, 2025, PHMSA issued draft regulations as part of a Notice of Proposed Rulemaking. These draft regulations included 18 proposals, including:

- 1) Redefining "carbon dioxide" to be a fluid of more than 50% CO₂ molecules in any combination of gas, liquid, or supercritical phases.
- 2) Establishment of procedures to convert steel pipelines for CO₂ or hazardous liquid transport.
- 3) Requiring all carbon dioxide pipeline operators to provide training to emergency responders that addresses threats specific to carbon dioxide releases and provide equipment to local first responders for use during an emergency on a carbon dioxide pipeline.
- 4) Requiring leak detection, fixed vapor detection, and alarm systems for CO₂ pipelines.
- 5) Requiring operators of all carbon dioxide pipelines to establish emergency planning zones extending two miles on either side of their pipelines that will inform operators' efforts in ensuring members of the public have adequate emergency response information.

This bill allows transport of CO₂ in a pipeline to or from a CO₂ capture, removal or sequestration project, not when PHMSA finishes its rulemaking, as is the case under existing state law; but when the OSFM, instead, adopts emergency regulations governing the safe transportation of CO₂ in pipelines. It further requires various regulations and protections of CO₂ pipelines such as prohibitions on pipeline materials; requirements of sensitive receptor inventories, mapping, and notifications; requirements on the frequency of updates to the CO₂ safety standards; and OSFM authorities to shutdown pipelines, among other standards.

According to the Author

According to the author, "Carbon capture technologies reduce carbon dioxide emissions by capturing, storing, and utilizing CO₂ from industrial processes, power plants, or direct air capture. Carbon capture is a critical and necessary strategy to reduce greenhouse gas emissions and achieve our climate goals. Models published by the Intergovernmental Panel on Climate

Change (IPCC) and the International Energy Agency (IEA) require removing up to 20 Gt of carbon dioxide per year from the atmosphere to limit global warming to 1.5C. Recognizing its importance – billions of dollars are being invested in carbon capture by industry, the private sector, and governments. In 2022 the Department of Energy committed \$3.7 billion to finance projects to remove planet-warming carbon from the atmosphere to meet the nation's goal of net-zero greenhouse gas emissions by 2050. On January 10, 2025, the Biden Administration released draft federal regulations that would have lifted the SB 905 moratorium. Unfortunately, there was not enough time to formalize these regulations by adding them to the federal registry. Under the current administration, federal pipeline safety regulations will be – at best – delayed, or – at worst – dangerous. California must act to establish robust pipeline safety regulations. By picking up where the Biden Administration left off, we can accelerate the safe deployment of carbon pipelines in California, leverage billions of dollars in federal support to meet our climate goals, and create thousands of high-road green jobs."

Arguments in Support

The bill is co-sponsored by the California State Pipe Trades Council and the Sacramento Municipal Utility District (SMUD). It is also supported by a coalition of utilities, power producers, cement producers, labor unions, and Net-Zero California and the Clean Air Task Force. Writing in support, SMUD notes: "AB 881 will ensure that carbon capture and storage projects can proceed in a manner that is protective of public health and safety while also preserving existing jobs and creating new jobs."

Arguments in Opposition

The bill is opposed by a long list of environmental, environmental justice and public health advocacy organizations, who generally oppose CCS (they liken it to "putting filters on a cigarette: it gives the appearance of a solution while allowing underlying harms to continue") and, more specifically, contend this bill is dangerously premature, noting: "Shortcutting the process set forth under SB 905 by ending the moratorium early not only presents the legal risk that California regulations will be preempted, but it prevents the state from benefitting from the groundswell of national input and expertise that the PHMSA rulemaking will generate."

FISCAL COMMENTS

According to the Assembly Committee on Appropriations, the OSFM reports minor and absorbable costs to implement this bill, as the OSFM is already working on carbon dioxide pipeline regulation pursuant to authority provided by existing law. The Senate Committee on Appropriations passed this measure out pursuant to Senate Rule 28.8 finding that any state costs are not significant.

VOTES:

ASM UTILITIES AND ENERGY: 17-0-1

YES: Petrie-Norris, Patterson, Boerner, Calderon, Chen, Davies, Mark González, Harabedian, Irwin, Kalra, Papan, Rogers, Schiavo, Schultz, Ta, Wallis, Zbur

ABS, ABST OR NV: Hart

ASM NATURAL RESOURCES: 13-0-1

YES: Bryan, Alanis, Ellis, Flora, Garcia, Haney, Hoover, Kalra, Muratsuchi, Pellerin, Schultz, Wicks, Zbur

ABS, ABST OR NV: Connolly

ASM APPROPRIATIONS: 15-0-0

YES: Wicks, Sanchez, Arambula, Calderon, Caloza, Dixon, Elhawary, Fong, Mark González, Hart, Pacheco, Pellerin, Solache, Ta, Tangipa

ASSEMBLY FLOOR: 72-0-7

YES: Aguiar-Curry, Ahrens, Alanis, Alvarez, Arambula, Ávila Farías, Bains, Bauer-Kahan, Bennett, Berman, Boerner, Bonta, Bryan, Calderon, Caloza, Carrillo, Castillo, Chen, Davies, DeMaio, Elhawary, Ellis, Fong, Gabriel, Gallagher, Garcia, Gipson, Mark González, Hadwick, Haney, Harabedian, Hoover, Irwin, Jackson, Kalra, Krell, Lackey, Lee, Lowenthal, Macedo, McKinnor, Muratsuchi, Nguyen, Ortega, Pacheco, Patel, Patterson, Pellerin, Petrie-Norris, Quirk-Silva, Ramos, Ransom, Celeste Rodriguez, Michelle Rodriguez, Rogers, Blanca Rubio, Sanchez, Schiavo, Schultz, Sharp-Collins, Solache, Soria, Stefani, Ta, Tangipa, Valencia, Wallis, Ward, Wicks, Wilson, Zbur, Rivas

ABS, ABST OR NV: Addis, Connolly, Dixon, Flora, Jeff Gonzalez, Hart, Papan

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