SENATE COMMITTEE ON ENVIRONMENTAL QUALITY
Senator Blakespear, Chair
2025 - 2026 Regular

Bill No:	AB 881		
Author:	Petrie-Norris		
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Urgency:	No	**Fiscal:**	Yes
Consultant:	Eric Walters		

SUBJECT: Public resources: transportation of carbon dioxide

DIGEST: This bill requires the State Fire Marshall (SFM) to adopt regulations to regulate the transportation of (CO_2) in a pipeline, including certain specified safety standards that, at a minimum, meet those proposed by the federal Pipeline and Hazardous Materials Safety Administration (PHMSA).

ANALYSIS:

Existing federal law:

1) Grants the United States Secretary of Transportation the regulatory and enforcement authority over gas and hazardous liquid pipelines, including CO_2 pipelines. (49 United States Code § 60102)

2) Prohibits the United States Secretary of Transportation from prescribing or enforcing safety standards and practices for an intrastate pipeline or intrastate pipeline facility to the extent that the safety standards and practices are regulated by a state authority, except at provided. (49 United States Code § 60105)

3) Defines "carbon dioxide" for the purposes of PHMSA, as a fluid consisting of more than 90% carbon dioxide molecules compressed to a supercritical state. (49 Code of Federal Regulations § 195.2)

4) Defines "hazardous liquid" as petroleum, petroleum products, and anhydrous ammonia, and ethanol or other non-petroleum fuel, including biofuel, which is flammable, toxic, or would be harmful to the environment if released in significant quantities. (49 Code of Federal Regulations § 195.2)

Existing state law:

1) Provides, under the Elder Act, that the State Fire Marshal (SFM) exercises safety regulatory jurisdiction over intrastate pipelines used for the

transportation of hazardous or highly volatile liquid substances. The Elder Act imposes various requirements in relation to the regulation of these intrastate pipelines. A person who willfully and knowingly violates the Act or a regulation adopted pursuant to the Elder Act is, upon conviction, subject to a fine, imprisonment, or both a fine and imprisonment, as provided. (Government Code (GOV) Chapter 5.5)

2) Defines "pipeline" for the purposes of the Elder Act, as every intrastate pipeline used for the transportation of hazardous liquid substances or highly volatile liquid substance; and does not include an interstate pipeline subject to federal regulations, a pipeline that transports hazardous substances in a gaseous state, and other specified exclusions. (GOV § 51010.5)

3) Requires the SFM to adopt hazardous liquid pipeline safety regulations in compliance with the federal law relating to hazardous liquid pipeline safety, including, but not limited to, compliance orders, penalties, and inspections and maintenance provisions. (GOV § 51011)

4) Requires every newly constructed pipeline, existing pipeline, or part of a pipeline system that has been relocated or replaced, and every pipeline that transports a hazardous liquid substance or highly volatile liquid substance, to be tested in accordance with federal regulations and every pipeline more than 10 years of age and not provided with effective cathodic protection to be hydrostatically tested every three years, except for those on the SFM's list of higher risk pipelines, which shall be hydrostatically tested annually. (GOV § 51013.5)

5) Authorizes the SFM to assess and collect from every pipeline operator an annual administrative fee. (GOV § 51019)

6) Prohibits, pursuant to SB 905 (Caballero, Chapter 359, Statutes of 2022) the use of pipelines to transport CO_2 to or from CO_2 capture, removal, or sequestration projects until the federal PHMSA has concluded a specified rulemaking regarding minimum federal safety standards for transportation of CO_2 by pipeline and the project operator demonstrates that the pipelines meet those standards.

This bill:

1) Requires the SFM to, on or before April 1, 2026, adopt regulations governing the safe transportation of carbon dioxide in pipelines, and further requires:

a) Those regulations to be equivalent to 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;
b) The SFM to consider the use of odorants and require their use if doing so is feasible, safe, and effective;
c) The requirements of the adopted regulations to apply to pipelines constructed after the effective date of the regulations, and to retroactively apply to pipelines that preceded the regulations within a timeframe specified by the SFM.

2) Permits the SFM to order a pipeline shutdown for violations of state or federal law, or if continued operations present an immediate danger to health, welfare, or the environment.

3) Requires any carbon dioxide recognized for compliance with specified CARB regulations to be transported only by pipelines that meet or exceed the regulations adopted by the SFM.

4) Imposes the following conditions on when certain carbon dioxide pipelines can be used:
   a) Interstate pipelines only once PHMSA has concluded the federal rulemaking;
   b) Intrastate pipelines only upon the SFM adopting the regulations established pursuant to this bill; and
   c) Pipelines solely transporting carbon dioxide within a permitted facility or property may be used immediately, as they are under current law.

Background

1) *Net zero GHG emissions*. Achieving net zero GHG emissions – a state where GHG emissions either reach zero or are entirely offset by equivalent atmospheric GHG removal – is essential in all scenarios that would keep Earth's average temperature within 1.5 °C of its historical average. Net zero GHG emissions is also often used interchangeably with "carbon neutrality," however net-zero GHG emissions implies the inclusion of GHGs other than those that contain carbon, such as nitrous oxide, as defined by AB 32 (Nunez, Chapter 488, Statutes of 2006). The sooner net-zero GHG emissions is reached globally, the less warming will be experienced.

   In California, carbon neutrality by 2045 was initially set as a goal for the state under Governor Brown's Executive Order (EO) B-55-18. The goal was

subsequently set in statute by Assemblymember Muratsuchi's AB 1279 in 2022, with the additional condition that net zero GHG emissions be achieved with at least an 85% direct reduction in emissions, and no more than 15% of the goal being achieved through negative emission technologies and approaches.

2) *Capturing, transporting, and sequestering carbon in California.* CCS is a process of separating CO_2 from a point source, such as the flue of a gas-fired power plant or a cement plant, and putting it into long-term storage, usually by injecting CO_2 into a geological reservoir. CCS is generally considered by experts to be a CO_2 reduction strategy, not a CO_2 removal strategy, since it is only reducing CO_2 from anthropogenic sources that would have otherwise entered the atmosphere, rather than removing what was already there.

   Transportation is a key component of CCS and carbon removal projects because the location at which CO_2 is captured may be some distance from the point at which it will be geologically sequestered. Transportation of CO_2 can occur by marine tankers, rail, trucks, or pipeline. Pipelines are considered the most efficient way to transport CO_2, as well as the safest way for the volume of CO_2 they move. In some cases, pipelines are also the most cost-effective way to move CO_2.

   CCS is adoptable in California due to the existing geological storage from the state's history of fossil fuel extraction. CARB has already adopted a CCS protocol under the Low Carbon Fuel Standard (LCFS), including for out-of-state CCS projects. CCS remains controversial because of fears it could prolong the life of fossil fuels and delay the transition to more sustainable fuels.

3) *SB 905 of 2022-2023.* Passed concurrently with Assemblymember Muratsuchi's AB 1279 in 2022 as part of the five "Climate Pillars", Senator Caballero's SB 905 tasked CARB and other agencies with developing standardized protocols for permitting and operating CCS in California. At that time, no CCS projects had been permitted in California, which was largely attributed to the complex regulatory thicket that needed to be navigated by project developers—U.S. EPA, the State Water Board, Regional Water Boards, and CalGEM for Class VI injection well permits, and local air districts for permits required to construct new sources of air pollution. By bringing the myriad permits and requirements together in a unified process under CARB's auspices, SB 905 attempted to accelerate CCS in California.

   Two provisions of SB 905 are particularly notable for understanding AB 881:

the requirement that led to CNRA producing the *Proposal for Establishing a State Framework and Standards for Intrastate Pipelines Transporting Carbon Dioxide*, and a moratorium on intrastate carbon dioxide pipelines until the PHMSA rulemaking was complete. These will be discussed more below.

Notably, SB 905 has not yet been substantially implemented at CARB. However, the proposed 2025-2026 Budget includes further staff positions specifically for doing so, a proposal that has been supported by CCS proponents and environmental justice advocates alike.

4) *CNRA proposal on carbon dioxide pipelines.* Published in March 2023, the *Proposal for Establishing a State Framework and Standards for Intrastate Pipelines Transporting Carbon Dioxide* described 5 recommendations to be considered in developing carbon dioxide pipeline policy in California:
   a) Provide SFM with clear regulatory authority over pipeline transportation of CO_2 in liquid, gas, and supercritical state to protect public safety;
   b) Specify that State regulations should only allow transport of CO_2 through intrastate pipelines when CO_2 is in a supercritical state and composed of at least 90% CO_2;
   c) Provide SFM with clear administrative and enforcement authority to order intrastate CO_2 pipeline shutdown immediately when safety regulations are violated;
   d) Clarify that intrastate pipelines may be used to transport CO_2 once PHMSA or California has adopted regulations on this topic; and
   e) Direct that state regulations establish standards regarding how pipelines are designed, sited, operated, and maintained.

   The proposal ultimately concluded that, "[CCS and carbon removal projects] must be developed in a thoughtful way that consider impacts to the surrounding communities and the environment. The design, siting, operation, and maintenance of a CO_2 pipeline have implications for public and environmental health and safety. Pipeline regulations are needed to ensure that any impacts are avoided or minimized to the extent possible. While PHMSA is working to update its pipeline regulations, it is unclear how stringent their regulations will be. California must consider proactively setting pipeline regulations to ensure that developers are aware of the state's expectations and requirements as they design their projects, however, establishing separate standards in California that are in addition to federal regulation is only possible if changes are made in State law." This bill, AB 881, is an effort to do just that.

Comments

1) *Purpose of Bill.* According to the author, "Carbon capture technologies reduce carbon dioxide emissions by capturing, storing, and utilizing CO_2 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 (DoE) 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 – non existent and 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."

2) *Satartia, MS: a cautionary tale.* In 2020, a carbon pipeline experienced a catastrophic rupture in Satartia, Mississippi, which released a dense cloud of carbon dioxide and displaced oxygen, causing dozens of people to collapse, suffer seizures, or lose consciousness. Emergency responders were unprepared for the incident, highlighting the dangers of CO_2 pipelines, particularly in low-lying areas where the gas can accumulate. The event underscores the need for stringent safety regulations, better emergency response protocols, and public awareness campaigns to mitigate risks associated with CCS infrastructure.

3) *Ending the moratorium on a relatively high note.* The original moratorium on CO_2 pipelines was put into SB 905 during negotiations over the 2022 "Climate Pillars" legislation. Since then, it has been the subject of considerable attention by the carbon management and fossil fuel industries, among others. Particularly as the PHMSA rulemaking continued for years without resolution, there has been some discussion of simply undoing the moratorium, without adopting additional protections.

   When PHMSA issued the draft rulemaking in January of this year, it suggested another end to the moratorium could be imminent: an actual rule from PHMSA on CO_2 pipelines. However, that draft and the rulemaking process were almost immediately withdrawn and halted upon the Trump administration taking office. Now that the state of the federal PHMSA CO_2 pipeline rule is uncertain once more, it seems likely that discussions could easily turn back to less-protective approaches.

   Thus, this may indeed be the moment for California to lead on CO_2 pipeline regulations. The SFM, under direction from the Legislature and with collaboration from other state agencies, could be well positioned to put forth intrastate CO_2 pipeline regulations that prioritize health and safety as much as practicable.

   It cannot be overstated: the risk of catastrophic CO_2 pipeline rupture can never be zero. Nevertheless, the apparent need for carbon storage to achieve carbon neutrality goals and the value of pipelines to facilitate that storage mean CO_2 pipelines are a very likely feature of California's future. This bill provides an opportunity to approach that future thoughtfully, while striking an appropriate balance between protecting the public and enabling progress on CO_2 pipeline projects. Every ton less carbon emitted into the atmosphere is one less ton that must be removed, processed, transported, stored, and monitored. While putting carbon back underground is better than leaving it in the atmosphere (to catastrophic effect), it is undoubtedly the most efficient solution to keep the carbon in the ground in the first place. Given our current situation, all of the above are necessary.

4) *This looks kind of familiar.* This committee heard a similar bill by Senator Stern, SB 614, in April of this year. Both bills direct the SFM to promulgate regulations based on the draft PHMSA regulations, but they do have some notable differences. Some of those differences are due to amendments made to SB 614 in this committee, and as such the author and committee may wish to include some of these provisions in AB 881 as well. The two bills differ

notably (and could be better aligned with what was supported in this committee previously) in that:

a) SB 614 requires the SFM to periodically (at least once every five years) review the safety standards in the regulations and increase them where deemed technically feasible and commercially available. ***The author and committee may wish to require this periodic strengthening of the regulations in AB 881 as well;***

b) SB 614 requires CO_2 to only be transported through newly constructed pipes, while AB 881 states that an approved pipeline cannot have been originally constructed to transport any other liquid or gas. ***The author and committee may wish to make it more explicit that pipelines transporting carbon dioxide cannot be constructed of previously used pipes or components;*** *and*

c) SB 614 requires the SFM's regulations to *at a minimum* meet the draft PHMSA regulations, whereas AB 881 only requires them to be equivalent. ***The author and committee may wish to require the regulations to meet the PHMSA draft regulations at a minimum;***

5) *"Yes, and…" of PHMSRA draft regulations.* To be clear, the draft PHMSA regulations issued in January of this year are a laudable standard. They included 18 proposals, some based on what went wrong in Satartia, notably including: redefining "carbon dioxide" to be a fluid of more than 50% CO_2 molecules in any combination of gas, liquid, or supercritical phases; 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; requiring leak detection, fixed vapor detection, and alarm systems for CO_2 pipelines; and 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.

Despite a number of encouraging provisions put in the draft PHMSA regulations, there is still room for reasonable improvement. Weighing the tradeoffs between practicability and safety is always difficult, but California has historically been a leader in going above and beyond federal standards. AB 881 attempts to do so with these draft regulations.

6) *Considerations for existing carbon transportation infrastructure.* Although California has not yet hosted a working CCS project, the state is no stranger to

using and transporting carbon dioxide for various industrial purposes. Moreover, the moratorium created by SB 905 in 2022 stated that "Pipelines shall only be utilized to transport carbon dioxide to or from a carbon dioxide capture, removal, or sequestration project once [the PHMSA regulations were finalized]," and also that the moratorium, "shall not apply to carbon captured at a permitted facility and transported within that facility or property."

As a result, although most of this bill is forward-looking, there are two notable accomodations that should be made for existing infrastructure. Specifically:

a) *This is not a pipeline*. Section 2 of the bill (GOV 51010.5) amends the existing definition of "pipeline" in the Elder California Pipeline Safety Act to include those intrastate pipelines that transport carbon dioxide. The existing definition pertains to intrastate pipelines that transport hazardous liquid substances or highly volatile liquid substances, and includes seven examples of what are *not* pipelines. The seven examples in existing law include interstate pipelines, flow lines for hazardous liquids, gathering lines in rural areas, and more.

   Given that the SB 905 moratorium was for pipelines serving CCS facilities, and the variety of other industrial uses carbon dioxide is used for, it may be appropriate to add an eighth example to existing law of what is not a pipeline for purposes of the Elder Act. ***The author and committee may wish to include a portion of the exemption that exists in the draft PHMSA regulations by adding, "Transportation of carbon dioxide through piping or equipment used in the production (including flow lines), extraction, recovery, lifting, stabilization, separation, or treatment of carbon dioxide or the preparation of carbon dioxide for transportation by pipeline at production (including flow lines), refining, or manufacturing facilities," to the list of things that are not a pipeline.***

b) *Legacy intrafacility pipelines*. As noted above, the SB 905 moratorium does not apply to intrafacility pipelines, and so CCS projects have been allowed to proceed so long as they are generating and storing the carbon dioxide onsite and meet the minimal standards that exist today. The first and so-far-only example of this that has actually been permitted and is under construction is the Carbon TerraVault project in Kern County. According to the sponsors of this measure, there is one pipeline (roughly 1,200 meters) within the Carbon TerraVault project (which overall is planned to include roughly 11 miles of pipelines) that could be affected retroactively by this bill.

While it is vital that California apply the highest and best standards tointrastate pipelines, it may be appropriate (and indeeded necessary for the Carbon TerraVault project) to not retroactively apply certain standards to the existing CO_2 pipeline at that (and only that) site.

To address the single intrafacility pipeline already underway at the Carbon TerraVault project, the author and committee may wish to exempt an intrafacility pipeline whose construction was permitted before July 1, 2025 from the design and construction provisions of the SFM regulations as long as it complies with the draft PHMSA regulations.

7) *Keeping communities safe.* The Satartia incident offers critical lessons for AB 881. California must prioritize robust pipeline safety standards, including proper monitoring systems, leak detection, and route planning to avoid vulnerable communities and geographies. Additionally, emergency response teams should be trained to handle CO_2 leaks, and residents near proposed pipelines must be informed of risks and evacuation procedures. Transparency, effective engineering controls, and community engagement are essential to ensure public trust and prevent similar disasters in California's transition to a lower-carbon future. The PHMSA draft regulations are a strong start, but California has an opportunity to demonstrate its leadership in environmental justice while still rapidly advancing state-of-the-art CCS projects by thoughtfully going above and beyond the proposed federal standards.

   a) *Targeted definitions*. While all residents of the state have a right to a safe, clean environment, California law repeatedly recognizes that some facilities in particular ("sensitive receptors") are especially vulnerable and merit additionally stringent protections in regulations. ***The author and committee may wish to include a definition of "sensitive receptor" that includes education facilities, community resource centers, health care facilities, live-in housing, residences, and buildings with businesses open to the public, all of which are certified for occupancy and not abandoned.***

   In a similar vein, the area within two miles of a pipeline merits additional considerations as well for maintaining safety. ***The author and committee may wish to define "emergency planning zone" as the area within two miles on either side of a carbon dioxide pipeline.***

   b) *Emergency planning zone inventory*. With a definition of sensitive receptor and emergency planning zone in place, it makes sense to develop, distribute, and regularly update an inventory of what sensitive receptors exist within the emergency planning zone of a carbon dioxide pipeline.

This will enable SFM, pipeline operators, first responders, and community members to understand and mitigate the potential risks of where pipelines cannot be routed in such a way as to avoid an emergency planning zone altogether.

The author and committee may wish to require carbon dioxide pipeline operators to submit to (and triennially update) the SFM and local governments providing emergency response services an inventory and map of the emergency planning zone for a carbon pipeline that includes all sensitive receptors and their distance to the pipeline.

c) *Modeling the flows of carbon dioxide and responding accordingly*. Part of what made the incident in Satartia, MS so dangerous was the wide and rapid spread of carbon dioxide from the ruptured pipeline, as well as the gas's tendency to pool in low-lying spots. Because of this, page 338 of the draft PHMSA regulations propose that pipeline operators must use a validated, engineering-based model to determine risk of release to surrounding communities, although the draft regulations pointedly avoid suggesting a single particular modeling approach or product.

The draft PHMSA regulations suggest multiple models or analyses could likely be used together, specifically that, an operator might choose to use: (1) an initial simpler and less time-intensive modeling approach along the entire pipeline segment as an initial screening tool, used alongside conservative assumptions or buffers with respect to the factors proposed at § 195.456; and (2) *subsequent detailed modeling for particular areas of concern identified by the initial modeling results*" [emphasis added]. Expounding on the latter, the regulations quote relevant industry guidance, which states, "In many assessments, empirical integral models should provide acceptable modelling capability, but in areas where the combined effects of topography, buildings, pits, etc. and the heavy gas properties of the released CO_2 may have a significant effect on the exposure of people or livestock, more detailed simulations using advanced dispersion tools (e.g. computational fluid dynamics (CFD)) should be considered."

In short, while simpler and less time-intensive modeling approaches such as vapor dispersion analysis are likely be required more broadly under the PHMSA regulations, in the context of emergency planning zones (and the impacts on the sensitive receptors within them), ***the author and committee may wish to require an analysis based on CFD modeling wherever a sensitive receptor falls within an emergency planning zone to assess the potential for one or more sensitive receptors to be harmed by exposure to***

carbon dioxide from a pipeline rupture.

Although knowledge of risk is necessary to take suitably protective action, modeling results alone are not sufficient. There are a number of design and construction considerations available to pipeline operators to minimize risk, such as routing pipelines away from sensitive receptors, installing specific mechanical elements (such as additional valves or crack arrestors) to reduce the scope of potential failures, and more generally using different materials and designs. While the risk to a sensitive receptor within an emergency planning zone can never truly be zero, pipeline operators across industries have grappled with minimizing risk to within acceptable ranges for as long as they have operated. ***The author and committee may wish to require the CFD analysis to determine that the risk of exposure to carbon dioxide within an acceptable range as determined by the lead CEQA agency.*** It will be vitally important for these numbers (and the approaches taken to minimize them) are made publicly available as part of the siting and review process; this will be discussed in the next subsection regarding environmental review.

Even when all precautions are taken, given enough time and enough pipeline length, some kind of failure is nearly inevitable, although that failure will hopefully be small enough as to not effect any lives. Regardless, particular care must be taken after a pipeline failure occurs. ***The author and committee may wish to a pipeline to remain nonoperational after any pipeline rupture until an investigation determines the cause of the failure and the SFM and appropriate agencies ensure the completion of necessary repairs.***

d) *Environmental review to maximize transparency and minimize impacts*. The California Environmental Quality Act (CEQA) accomplishes many of the goals communities who host carbon dioxide pipelines share: a comprehensive assessment available publicly through an environmental impact report (EIR), efforts made to mitigant significant effects, and opportunities for community engagement based on the EIR. Thus, it will be vital that carbon dioxide projects be required to go through full CEQA environmental review (or an equivalent process, where appropriate) to assess and resolve other impacts on the environment. ***The author and committee may wish to require the operator of any carbon dioxide pipeline project to complete a certified EIR.***

Moreover, the author and committee may wish to ensure that, as part of the CEQA process; 1) the lead agency determines that the proposed

pipeline complies with the above requirements regarding CFD modeling to determine risk within acceptable ranges, 2) the lead agency provides notice to owners and operators of sensitive receptors in the emergency planning zone of the proposed pipeline (or alternative routes) in the draft EIR regarding the potential risk of exposure to carbon dioxide and their opportunity to provide public comment regarding the project; and 3) the SFM provides to the lead agency and makes public the CFD-based risk assessment described above at least 30 days before the EIR is certified.

With these provisions in place, each permitted interfacility CO_2 pipeline in California will need to go through a robust process. In short, the lead agency must determine an acceptable level of risk of CO_2 exposure, the pipeline operator will need to determine (using the most robust modeling contemplated in the draft PHMSA regulations) that wherever the pipeline must come within two miles of a sensitive receptor efforts are taken to reduce exposure risk to within that acceptable risk level. Finally, through the normal CEQA (or equivalent) process—conducted with additional notice requirements for sensitive receptors within two miles of the pipelines—communities will be informed as to the proposed pipeline, the risk it brings, the alternatives that are considered, and the efforts taken to mitigate any environmental significant environmental impacts.

As this process gets underway and California's CCS industry ostensibly grows, the Legislature should continue to assess what is and is not working about this approach proactively. One upside of this approach is that risk and mitigation can be assessed in the context of each specific project, and construction can move forward sooner without the need for further additional rulemakings. However, it may turn out to be inefficient to reinvent the wheel, as it were, with each project's assessment and mitigation of risk. A topic for future legislatures to consider would be whether a more formal regulatory process—under the auspices of SFM or another agency with familiarity with pipelines or other hazard assessments—to develop statewide best practices for acceptable risk, risk reduction, and potential levels of exposure might help future projects proceed more efficiently without litigating each detail each time.

Putting it all together, as proposed to be amended, AB 881 will lead the way worldwide in deploying carbon dioxide pipelines while informing and protecting the communities they may run through. Where pipeline operators are able to route pipelines so that there are no sensitive receptors within two miles on either side, they will still be held to regulations equivalent to the draft PHMSA standards. When there is no other option but to have pipelines within two miles of sensitive receptors, operators will be required to carry out CFD

modeling and minimize risk to at most a level determined by the lead agency under CEQA, while proactively informing local first responders and the SFM as to the populations at risk. The operators will need to report that risk and the steps taken to minimize it as part of the pre-construction review process that will include a full CEQA analysis as well.

Carbon capture and sequestration will never be the easiest, cheapest, or quickest way to decarbonize most of the state's sources of GHG emissions. In situations where clean energy, low-carbon fuels, or alternative materials can be used to suitably reduce emissions, no reasonable person would opt to apply costly CCS instead. Nevertheless, for some important industrial processes and for counterbalancing the residual GHG emissions California will have for decades to come, CCS may sometimes be the best approach. California has erred on the side of caution and prevented CCS projects from building interfacility pipelines altogether since 2022. By lifting that moratorium with carefully considered safety standards and guidelines in place, AB 881 represents a laudable effort to grow California's use of CCS without unduly sacrificing the safety of its residents.

8) *Committee amendments. **Staff recommends the committee adopt the bolded amendments contained in comments 4, 5, 6, and 7 above.***

Related/Prior Legislation

SB 614 (Stern, 2025) requires the SFM to adopt regulations to regulate the transportation of carbon dioxide in a pipeline, including certain specified safety standards that, at a minimum, meet those proposed by the federal PHMSA. SB 614 is currently in the Assembly Natural Resources Committee.

SOURCE: California State Pipe Trades Council
Sacramento Municipal Utility District

SUPPORT:

Bloom Energy
California Carbon Solutions Coalition (UNREG)
California Municipal Utilities Association
California State Pipe Trades Council
Clean Air Task Force
Coalition for Sustainable Cement Manufacturing and Environment
Independent Energy Producers Association

Sacramento Municipal Utility District
State Building and Construction Trades Council

OPPOSITION:

1000 Grandmothers for Future Generations Bay Area
350 Bay Area Action
350 Contra Costa Action
350 Humboldt
350 Santa Barbara
Asian Pacific Environmental Network
Biofuelwatch
CA Youth Vs. Big Oil
California Environmental Justice Alliance (CEJA) Action
Center for Biological Diversity
Climate Equity Policy Center
Climate Hawks Vote
Climate Health Now Action Fund
Climate Reality San Francisco Bay Area Chapter
Consumer Watchdog
El Pueblo Para El Aire Y Agua Limpia De Kettleman City
Elders Climate Action
Elders Climate Action Norcal Chapter
Extinction Rebellion San Francisco Bay Area
Food & Water Watch
Food Empowerment Project
Fossil Free California
Good Neighbor Steering Committee of Benicia
Greenpeace USA
Interfaith Climate Action Network of Contra Costa County
Labor Rise Climate Jobs Action
Oil and Gas Action Network
Oil Change International
Physicians for Social Responsibility - Los Angeles
Planning and Conservation League
Progressive Democrats of Benicia
Protect Monterey County
San Francisco Bay Physicians for Social Responsibility
San Francisco Baykeeper
Sandiego350
Santa Cruz Climate Action Network
Science and Environmental Health Network

See (social Eco Education)
Sierra Club California
Solano County Democratic Central Committee
Sunflower Alliance
Unidos Network INC
West Berkeley Alliance for Clean Air and Safe Jobs
2 Individuals

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