



CREATING GOOD JOBS, A CLEAN ENVIRONMENT, AND A FAIR AND THRIVING ECONOMY

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The BlueGreen Alliance (BGA) unites labor unions and environmental organizations to solve today's environmental challenges in ways that create and maintain quality jobs and build a stronger, fairer economy. Our partnership is firm in its belief that Americans don't have to choose between a good job and a clean environment—we can and must have both.

We appreciate the opportunity to provide input to help shape the Pipeline and Hazardous Materials Safety Administration's (PHMSA) upcoming rulemaking on CO2 pipeline safety. Strong safety regulations addressing community and worker concerns will be vital for this industry.

With the expected growth of the carbon management industry in the U.S., some projects will require the construction of new or scaling up of existing CO2 pipelines to safely transport the increased load of CO2 to its final destination. Enforceable pipeline safety regulations should precede and guide such expansion, and new PHMSA rules must ensure that all CO2 pipelines protect workers, communities, and the environment.

In its April 2022 report on limiting warming to 1.5°C, the Intergovernmental Panel on Climate Change (IPCC) said that in addition to "rapid and deep and in most cases immediate GHG emission reduction in all sectors," some deployment of carbon dioxide removal (CDR) technology like direct air capture (DAC) "is

unavoidable if net zero emissions are to be achieved.”¹ In their 2023 Synthesis Report, the IPCC again affirmed that CDR is “unavoidable” in order to “counterbalance hard-to-abate residual emissions,” such as those from certain industrial or agricultural processes, as pathways to limiting warming to 1.5°C become increasingly challenging.² Princeton University’s Net Zero America report similarly relies on some degree of CO2 capture and utilization or storage.³ Particularly with the Inflation Reduction Act’s increased federal subsidy for CO2 capture and utilization or storage, we expect to see a growth of CO2 pipeline infrastructure in the coming years.

Accordingly, both public and private investments in carbon management are ballooning. CO2 pipelines were specifically funded in the 2021 Bipartisan Infrastructure Law, with \$2.1 billion for the Carbon Dioxide Transportation Infrastructure Finance and Innovation Act (CIFIA), meant to fund large-capacity, common-carrier CO2 transport projects. However, constructing pipelines requires careful siting consideration with local community input and proper concern for ecosystems. The transport and storage of captured carbon requires informed community consent; ironclad protections for water, land, and other natural resources; and a comprehensive accounting for environmental justice concerns. BGA’s priorities for PHMSA’s CO2 pipeline safety regulations include the following recommendations:

- **Community engagement:** Communities should have the opportunity to engage with developers and regulators early to learn about the potential benefits and dangers of a CO2 pipeline project. Impacted communities should be able to express confidence in a pipeline’s safety before a project proceeds. Consultation and siting processes also should be done in concert with state, local, and Tribal governments. To minimize physical impacts on communities, developers and regulators should ensure that

¹ Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2022: Mitigation of Climate Change, Summary for Policymakers*, 2022. Available online: https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_SPM.pdf.

² Intergovernmental Panel on Climate Change (IPCC), *Synthesis Report of the IPCC Sixth Assessment Report (AR6)*, 2023. Available online: https://report.ipcc.ch/ar6syrr/pdf/IPCC_AR6_SYR_LongerReport.pdf

³ Princeton University, *Net Zero America, Pillar 4: CO2 capture, transport, and utilization or geologic storage*, 2021. Available online: <https://netzeroamerica.princeton.edu/the-report>

regular pipeline monitoring and strict safety precautions are enforced throughout the project's lifetime.

- Environmental justice: New pipeline construction must avoid recreating or reinforcing the environmental injustices of forcing disadvantaged communities to bear the environmental burdens of pipeline construction, as well as the potential health burdens that pipeline ruptures can cause. The buildout of CO₂ infrastructure must prioritize the health and safety of host communities. Proposals should take into account the environmental and health impacts that burden frontline communities with disproportionate air, water, and land pollution risks. Protections for affected communities must be included in any CO₂ transportation and storage proposals.
- Emergency response training: In the event of a pipeline rupture, CO₂ can pose a serious threat to human health and raise unique challenges for first responders. CO₂ is heavier than air and can settle in low-lying areas, displacing oxygen and acting as an asphyxiant. This displacement of oxygen can also render internal combustion engines inoperable, potentially hindering evacuation and emergency response efforts. This raises challenges that first responders must be prepared for. Pipeline operators and PHMSA should work with local officials to develop emergency response plans and require proper training for first responders near CO₂ pipelines. In their upcoming rules on CO₂ pipelines, PHMSA should address the unique dangers posed by CO₂ pipeline safety incidents.

Under 49 CFR Part 195.2, PHMSA has the authority to regulate CO₂ pipelines, but CO₂ is defined as “a fluid consisting of more than 90 percent carbon dioxide molecules compressed to a supercritical state.” This means that PHMSA does not currently regulate pipelines that transport CO₂ as gas or subcritical liquid, even though Congress expressly gave PHMSA the authority to do so in section 15 of the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011. Though nearly all CO₂ pipeline transportation occurs in a supercritical state, it is important that this regulatory gap be closed. PHMSA safety guidelines should remove any ambiguity that may restrict PHMSA rules only to CO₂ in a

supercritical state. PHMSA must ensure that all CO₂ phases, including gas and liquid, are clearly included under their regulatory authority.

With the expected increase in the need for CO₂ pipelines, PHMSA's budget should increase accordingly. PHMSA should have the budget to ensure operators are consistently complying with safety regulations and to keep up with and adequately enforce rules on all new and existing CO₂ pipelines. Added enforcement capacity will help the agency ensure the safety of the environment, public health, and infrastructure integrity. An expanded budget will enable PHMSA to maintain their inspection and oversight capabilities, ensuring that all CO₂ pipelines are compliant with the necessary safety standards. Increasing PHMSA's budget in line with the projected rise in CO₂ pipelines demonstrates a commitment to protecting environmental health and public safety while enabling the efficient, safe deployment of CCUS.

Strong safety regulations for CO₂ pipelines are crucial for the protection of communities, workers, and the environment. With strong monitoring and safety procedures, the risk of pipeline ruptures can be significantly reduced, and the impact of safety incidents can be mitigated. Pipeline operators must be required to adhere to strict safety regulations, including regular monitoring and maintenance of their pipelines. To ensure the safe transportation of CO₂, PHMSA's updated rules must be strong and comprehensive enough to prevent disasters before they happen. Appropriately protective safety standards provide an opportunity for highly-skilled jobs, environmental stewardship, and the public to align for a more sustainable society.