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**Testimony of The Pipeline Safety Trust**

Presented by: Bill Caram, Executive Director

before the

**California Air Resources Board**

June 23, 2022

Greetings Chair Randolph and the rest of the Air Resources Board. I appreciate the opportunity to testify today. My name is Bill Caram, and I am the Executive Director of the Pipeline Safety Trust. We formed in the aftermath of a 1999 pipeline tragedy in Bellingham, Washington that stole the lives of three boys and we work to prevent other families and communities from having to experience the needless grief as those in Bellingham. Since our founding, we have served as the only national public advocacy organization dedicated to pipeline safety. As an organization, we have testified before the U.S. Congress dozens of times on many pipeline-related topics. I was appointed by the U.S. Department of Transportation Secretary Pete Buttigieg to serve on the Federal Hazardous Liquids Pipeline Advisory Committee, and I was appointed by Washington's Governor Inslee to serve on the Citizen's Committee on Pipeline Safety. Our previous Executive Director was named by President Obama as a "Champion of Change" for his work for the Pipeline Safety Trust.

I am here today to speak about Carbon Dioxide pipelines. Virtually any plan that includes Carbon Capture and Sequestration or Direct Air Capture will involve transporting that captured $CO_2$ via pipeline. As you may be aware, residents of Satartia, Mississippi learned the hard way that they had a $CO_2$ pipeline in their community. When that pipeline ruptured in 2020, the escaped $CO_2$ caused a harrowing experience for many – sending 45 people to the hospital with symptoms of asphyxiation. Some are still recovering from that night now two years later. In response to that event, along with the sudden increase of proposed $CO_2$ pipelines in connection to various carbon capture and sequestration projects, the Pipeline Safety Trust commissioned a report from an independent pipeline safety engineer to identify the safety risks and regulatory gaps posed by $CO_2$ pipelines.

The report, which was released in March and can be found on our website, outlined the history of $CO_2$ pipelines and identified a number of unique safety risks posed by $CO_2$ pipelines along with corresponding regulatory gaps. Congress first asked the federal pipeline safety agency PHMSA to regulate $CO_2$ pipelines in 1988 after a natural release of $CO_2$ from Lake Nyos in Cameroon killed every oxygen breathing being withing 18 miles, including nearly 1,700 people.

PHMSA responded by tagging on "and $CO_2$" to Highly Volatile Liquids regulations, despite the unique properties and risks of these pipelines. $CO_2$ pipelines are operated at very high pressure and releases lead to rapid, often violent phase changes. Because $CO_2$ is an asphyxiant and heavier than air, it can stay close to the ground after a release and move long distances. Traditional methods of determining Potential Impact Areas around hydrocarbon pipelines are inappropriate and insufficient for $CO_2$ lines, but that is exactly what the regulations call for. Denbury, the pipeline operator in Satartia, Mississippi, identified the area around its pipeline that could be impacted by a failure and many of the people hospitalized were outside of that identified area.

Our report also found that $CO_2$ is entirely unregulated if it's transported as a gas or as a liquid. It is only regulated if it is transported as a supercritical fluid. There are no standards as to levels of various contaminants, some of which are very common, corrosive, and/or toxic. $CO_2$ acts very differently from hydrocarbons in the pipeline and after a rupture and the regulations are simply not up to the task of keeping communities safe.

I would also like to point out that the White House Environmental Justice Advisory Council last year listed both CCS and Direct Air Capture as projects that would not benefit a community. A study published just last month by Environmental Science and Technology based on data from EDF and Colorado State University show the disproportionate burden of pipeline dangers our most vulnerable communities bear. The study found that natural gas pipeline leaks are more prevalent in neighborhoods whose populations are predominately low-income or people of color. There have been several similar studies with, sadly, similar conclusions.

I encourage you all to read our report and pay special attention to our summary of findings and regulatory recommendations. I encourage you to click on the link on our page of the test rupture of a $CO_2$ pipeline so you can get a sense of a supercritical fluid failure's violent rupture. I encourage you to read Dan Zegart's harrowing article about the $CO_2$ pipeline in Satartia, Mississippi to start to understand the risks these pipelines will pose to our communities. And I ask you to look at ways to close these regulatory gaps before any of California's communities are asked to shoulder the burden of risk these pipelines pose.