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## **DEPARTMENT OF TRANSPORTATION'S PHMSA RELEASES INVESTIGATION INTO DISASTROUS 2020 CO<sub>2</sub> PIPELINE LEAK IN SATARTIA, MISSISSIPPI**

**PHMSA Fines Denbury Gulf Coast Pipeline LLC Nearly \$4,000,000, Initiates a New Rulemaking to Update Safety Standards for CO<sub>2</sub> Pipelines, and Publishes Advisory Bulletin Warning All Pipeline Companies About Pipeline Integrity Risks Associated with Climate Change**

BELLINGHAM, Washington [May 26, 2022] – The Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA) took large steps today to increase its safety oversight of CO<sub>2</sub> pipelines by initiating a new rulemaking to update standards for CO<sub>2</sub> pipelines, releasing an investigation report on the 2020 Denbury CO<sub>2</sub> pipeline failure in Satartia, MS, issuing a near \$4,000,000 fine against Denbury for non-compliance associated with that failure, and issuing a nationwide advisory bulletin on the emerging threat of geohazards.

### **Denbury Gulf Coast Pipeline CO<sub>2</sub> Pipeline Failure Investigation Report**

PHMSA released a long-anticipated investigatory report detailing the multitude of failures Denbury Gulf Coast Pipeline LLC committed when its 24-inch Delhi Pipeline ruptured in Satartia, MS on Feb. 22, 2020 causing the entire town to be evacuated and sending 45 people to the hospital.

Denbury's initial estimate of 222 barrels of CO<sub>2</sub> released by the pipeline was dwarfed by the actual amount that descended over the rural Mississippi community in the form of a green cloud. In the report, PHMSA concluded that the Delhi pipeline released 31,405 barrels CO<sub>2</sub>, a known asphyxiant. In some initial assessments, PHMSA determined that CO<sub>2</sub> concentrations

ranged as high as 28,000 ppm, far beyond the established Occupational Safety and Health Administration (OSHA) permissible exposure limit of 5,000 ppm. The 45 community members sent to the hospital had various symptoms and effects related to CO<sub>2</sub> poisoning.

Under the current PHMSA reporting requirements for hazardous liquid pipelines, the 45 people who went to the hospital were not classified as injuries on incident reports. Pipeline Safety Trust Executive Director Bill Caram said this is a major reason why this disaster stayed under-the-radar for so long.

“The hazardous liquid pipeline regulations state that a victim needs to be an overnight patient to count as an injury,” Caram said. “But in the case of Satartia, previous reports have stated that hospitals pushed them out that night, though many had to return in the morning for further treatment.”

Caram added, “As listed, the incident data reads zero injuries and does not accurately tell the story of how harrowing this was for the Satartia community.” Caram noted that he understands there are still people experiencing health issues as a result of their CO<sub>2</sub> exposure.

The report also details the insufficient modelling Denbury conducted that failed to show the community of Satartia could be impacted by a pipeline failure. PHMSA also explains how Denbury was aware of the CO<sub>2</sub> release into the Satartia area and failed to notify emergency responders who were struggling to identify the nature of the risk they were dealing with and which mitigative actions to take.

### **Denbury Gulf Coast Pipeline Probable Violations of Federal Regulations**

PHMSA also issued a Notice of Probable Violation and a Proposed Civil Penalty of \$3,866,734. The notice revealed several contributing factors to the accident and the fallout, all of which were preventable by Denbury.

According to PHMSA, Denbury did not address the risks of geohazards to its pipeline system, they underestimated the potential affected areas that could be impacted by a release in its CO<sub>2</sub> dispersion model, and they did not notify local responders to advise them of a potential failure. All told, PHMSA identified eight areas of non-compliance.

### **Advisory Bulletin Regarding Land-Movement**

Following periods of intense rains, which resulted in a landslide, Denbury’s Delhi Pipeline experienced a heavy amount of strain causing a girth weld on the pipeline to rupture. Due to this complication, PHMSA has issued an advisory bulletin to all pipeline operators highlighting the immediate need to plan for land movement and geohazard threats to pipeline integrity.

Denbury representatives have told PHMSA, that on the Delhi pipeline route, they experience two to three issues per year involving land movement.

“Given the seeming rise in extreme weather contributions to pipeline failures in the era of climate change, operators need to spend more resources on tracking geohazards such as land movement and the threats they pose to their pipelines,” Caram said.

### **New CO<sub>2</sub> Pipeline Safety Regulations**

PHMSA also announced the initiation of a new rulemaking to update standards for CO<sub>2</sub> pipelines. Caram said the Pipeline Safety Trust applauds PHMSA for starting the process to adopt new regulations for CO<sub>2</sub> pipelines.

“As Denbury’s failure in Sartartia, MS demonstrates, CO<sub>2</sub> releases can be incredibly hazardous to our communities,” Caram said. “We released a report earlier this year identifying terrifyingly large regulatory gaps and we hope and expect PHMSA will address each of those with new regulations. The list of proposed new CO<sub>2</sub> pipeline projects seems to grow every week, which makes it all the more important to modernize our safety regulations immediately. It is encouraging that PHMSA recognizes the risks and regulatory gaps and is taking steps to protect our communities.”

**About Pipeline Safety Trust:** The Pipeline Safety Trust is a nonprofit public watchdog promoting pipeline safety through education and advocacy by increasing access to information, and by building partnerships with residents, safety advocates, government and industry, that result in safer communities and a healthier environment.

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