Civil and environmental Engineering and earth sciences DISTINGUISHED LECTURE

sponsored by the Clemson Hydrogeology Symposium



Sally M. Benson, Ph.D.

Precourt Family Professor of Energy Science Engineering Senior Fellow, Woods Institute for the Environment Senior Fellow, Precourt Institute for Energy Department of Energy Science and Engineering School of Earth, Energy & Environmental Sciences Stanford University

Advances in Geological Storage of Carbon Dioxide in Deep Geological Formations

Capturing carbon dioxide and storing it in deep underground geological formations is one of the most important approaches for reducing emissions of greenhouse gases into the atmosphere. Recent studies indicate that globally about 10 Gt/year of CO₂ storage may be required by the middle of the century, including about 1 Gt/year in the U.S. Managing subsurface storage of this much CO₂ requires the ability to characterize the storage potential of geological formations, predict and manage CO₂ plume migration and pressure buildup, and monitor the fate and transport of CO₂ in the subsurface. This presentation will provide an overview of recent advances in CO₂ storage science and engineering, including new results from the GeoCquest Field Validation Test being conducted in Australia.

Thursday, April 3, 2025 @ **11 a.m.** | **Madren Center auditorium (SCEEES)** Tiger Transit (Watt to Madren) departs Watt @ 10:30 a.m. | Tiger Transit (Madren to Watt) departs Madren at 12:15 p.m.