



American Association of Petroleum Geologists Statements

Geologic Carbon Storage

Issue: As fossil fuel demand increases worldwide, increased use will result in a rise in CO₂ emissions to the atmosphere. Geologic carbon storage is a carbon management strategy suggested for capturing CO₂ from stationary point sources, such as electrical power generation and industrial facilities. The CO₂ is injected into stable geologic reservoirs with low-permeability seals that permanently isolate stored CO₂ from the atmosphere.

Background: Various governmental agencies and industries worldwide are identifying and investigating candidate reservoirs for the storage of CO₂, including deep saline formations, mature oil and gas reservoirs, and coal beds. The reservoirs may be selected to either store the CO₂ permanently or to make it available for subsequent commercial use. Most current geologic carbon storage operations are limited to research and development ventures, although exceptions exist.

The oil and gas industry's many years of experience play a critical role in advancing the science and practice of geologic carbon storage. This includes 10 years of experience at Sleipner, Norway, In Salah, Algeria, and other places capturing and storing CO₂ in the subsurface. The industry also has 30 years of experience using CO₂ from natural geologic reservoirs and anthropogenic sources for enhanced oil recovery (EOR) operations and more than 50 years of natural gas storage in saline reservoirs, where the long history of safe storage serves as a working laboratory for carbon sequestration. In addition to CO₂ EOR, CO₂ enhanced gas recovery (EGR) is also possible.

While EOR and EGR operations are not conducted for CO₂ storage purposes, the oil and gas industry's practical knowledge of EOR technologies related to injection, reservoir performance, transportation, and materials handling is broadly available and has direct application to the practices of geologic carbon storage. Permanent, large-scale geologic storage of CO₂ will occur only when carefully defined carbon management policies receive public, financial (commercial and economic), and government approval.

Statement: Geologic CO₂ storage represents an important technology for mitigating increased atmospheric CO₂. Just as industry experience in CO₂ EOR and EGR benefits geologic carbon storage activities, research and technology development for carbon storage will also increase understanding of subsurface processes occurring in CO₂ EOR and EGR operations. This should result in increased efficiency and broader opportunities for the production of incremental oil and gas. Therefore, AAPG urges the expansion of funding for scientific research on permanent carbon storage and for the scientific research related to reservoir performance.

As a professional, scientific association, AAPG is a credible source of information of interest to a wide spectrum of individuals. AAPG has a proud history of providing information to decision-makers and the public on matters concerning the science and profession of petroleum exploration.

In this role, AAPG has given testimony before the U.S. Congress, provided information to lawmakers on a national, state and local level, and has adopted statements that the association believes are of importance.

The statements that are currently in effect were revised or added in June 2007 and are reviewed periodically. They can be accessed at: <http://dpa.aapg.org/gac/index.cfm>