Underground Storage of Refrigerated Natural Gas in Granites of the Southeastern U.S.

**Discussion and Conclusions**

There are some major barriers to successful underground refrigerated natural gas storage, including geotechnical, geological, and environmental factors. The primary challenge is the need for large-scale underground excavations, which can be expensive and time-consuming. Additionally, the geology of the southeastern U.S. is complex, with a variety of rock types and structures that can affect the viability of underground storage projects.

LNG plants can be built almost anywhere, but those near the coast are built on unconsolidated sediments. LNG is more viable than Refrigerated Mined Caverns (RMC) along the Atlantic Seaboard. Even so, the cost and risk of constructing LNG plants are significant.

See discussion of fracture closure depths for the Sharon Harris Nuclear power plant in Wake County, North Carolina in box below (The Sharon Harris Nuclear plant, 1996).

**References**

- Butler, J. Robert, 1976, Geology of the propane storage cavern near Tirzah, Central York County, South Carolina: Division of Geology, South Carolina Development Board.