

Underground Cavern Development

In 1988, Government commissioned a study on a number of potential uses of underground space (SPUN) : container port back-up facilities in the form of a container freight station and tractor and trailer park, oil and gas storage, sewage treatment works, refuse transfer station, warehousing, commercial, government, institution and community space. The study confirmed that the use of underground caverns is a viable alternative to construction above ground and could confer significant environmental benefit.

2. With the experience from the study and from local construction of deep basements, tunnels and caverns, we have developed some initial guidance on cavern construction :

- (a) Geoguide 4, "Guide to Cavern Engineering", published in March 1992, offers a recommended standard of good practice for the civil engineering aspects of rock cavern applications in Hong Kong.
- (b) Chapter 11 of the Hong Kong Planning Standards and Guidelines provides planning standards and guidelines for underground rock cavern development.
- (c) "Guide to Fire Safety Design for Caverns 1994", published in late 1994, gives design guidelines on fire safety in underground caverns.



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Index under : Underground caverns
Underground construction