Environmental Engineering and Management Journal

July 2010, Vol.9, No. 7, 889-896
http://omicron.ch.tuiasi.ro/EEMJ/

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AN OVERVIEW OF CO_2 GEOLOGICAL STORAGE IN CHINA

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Abstract

With the rising energy demand and the increase in coal consumption, emissions of CO_2 are rising. One of the most promising options for greenhouse gas emission control is to separate and capture CO_2 and to inject it into deep subsurface formations for long-term storage. In China, the rich Mesozoic-Cenozoic tectonic structures and the large number of sedimentary basins supply beneficial conditions to develop CO_2 capture and storage strategy. Before selecting a site, the geological setting and the stability of the caprock should be assessed first, together with the CO_2 storage capacity. A case study in Songliao Basin was set as an example to analyze the capacity calculation method and the potential storage capacity in China. The costs, the international cooperation, the public acceptance are also important factors determining the role of CO_2 capture and storage as a climate change strategy in China.

Key words: capacity, China, geological storage, stability of caprock, Songliao Basin

Received: May, 2010; *Revised final:* July 2010; *Accepted:* July, 2010

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