

Risk Assessment Study for Bio-CCS

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We have started a new R&D project titled "Energy resources creation by geo-microbes and CCS". It aims to cultivate methanogenic geo-microbes in CCS conditions and produce methane gas effectively and safely. To meet these needs, we are evaluating risks around new Bio-CCS technology. Our consideration involves risk scenarios about Bio-CCS in geological strata, marine environment, surface facilities, ambient air and injection sites. To cover risk scenarios in these areas, we are carrying out a sub-project with five sub-themes. Four sub-themes out of five are researches for identifying risk scenarios: A) Underground strata and injection well, B) Ambient air, C) Surface facilities and D) Seabed. We are developing risk assessment tool, named GERAS-CO2GS (Geo-environmental Risk Assessment System, CO2 Geological Storage Risk Assessment System). We are going to combine identified risk scenarios into GERAS-CO2GS accordingly. It is expected that Development of GERAS-CO2GS will contribute to risk assessment and management for not only Bio-CCS but also individual injection sites, and facilitate understanding of risks among legislators and concerned peoples around injection site.

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