

30 July 2010

New CO₂ Capture Technology from Natural Gas

INPEX, JGC and BASF to Perform Demonstration Tests

Tokyo, Japan –INPEX CORPORATION, JGC CORPORATION and BASF SE announced today that they have entered into an agreement to jointly carry out demonstration tests on a new technology for effectively capturing and recovering CO₂ contained in natural gas. The tests are carried out at INPEX's Koshijihara natural gas plant (Nagaoka city, Niigata prefecture) starting August 2010.

Natural gas often contains CO₂ when it is extracted from the well. Whether the natural gas is transported via pipelines, converted to liquefied natural gas (LNG) or used in chemical processes, the CO₂ has to be captured beforehand. Even state-of-the-art CO₂ capture processes require a large amount of energy and the removal facilities account for a major part of investment and operating costs.

JGC and BASF jointly began developing a new technology for a CO₂ capture process called High Pressure Acid Gas Capture Technology (HiPACT) in 2004. Following basic research and a series of trials, the new technology shows a significantly higher CO₂ absorption rate than existing processes and is capable of recovering CO₂ under high-pressure conditions. An important milestone in this development is transferring the new technology to an operating gas processing facility.

The advantage of HiPACT technology is twofold: firstly, it reduces the overall power consumption of the facility and lowers investment costs. Moreover, there is a significant reduction in the amount of energy required to increase the pressure of the CO₂ when used in chemical synthesis or sequestered underground.

Going forward with information from the test results, INPEX will aim at further energy savings at its natural gas plants using the HiPACT technology. JGC and BASF will focus on the commercialization of

HiPACT technology in all relevant sectors, for example in natural gas projects with CO₂ re-injection.

Media Contact: INPEX Tokyo Office, Public Relations Group, Tel) +81-3-5572-0233