News Release

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BASF and JGC's HiPACT® technology supports successful start-up of INPEX's Kashiwazaki Clean Hydrogen/Ammonia Project for CO_2 injection

- **BASF and JGC passed the performance test run of HiPACT® at INPEX's Kashiwazaki Hydrogen Park**
- **CO_2 capture and compression costs expected to be reduced by up to 35% based on estimates**
- **Supports INPEX's production of lower-emission energy sources that do not emit CO_2 at the point of use**

BASF and JGC Corporation (JGC) have passed the performance test run (PTR) of HiPACT®, a high-pressure regenerative CO_2 capture technology co-developed by the two companies, contributing to the start-up of INPEX Corporation (INPEX)'s blue hydrogen and ammonia demonstration plant in Kashiwazaki City, Japan. Injection of the separated CO_2 commenced in August 2026. INPEX is one of Japan's largest exploration and production (E&P) companies, engaged in the development and operation of oil and gas projects worldwide.

HiPACT® is used for CO_2 separation and capture, enabling more efficient CO_2 injection. By releasing CO_2 off gas above atmospheric pressure, HiPACT® based on engineering estimates, is expected to reduce CO_2 capture and compression costs by up to 35% compared with conventional technologies, thanks to its high-temperature durability and CO_2 absorption performance. As CO_2 can be stored underground in an energy-saving manner, the technology is designed to enhance the benefits of Carbon Capture and Storage (CCS).

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Lawrence Loe, Director, OASE® Gas Treating Excellence, Intermediates Asia Pacific, BASF, said, “We are proud to support INPEX in bringing this landmark blue hydrogen and ammonia project to life. It’s not only an important step towards Japan’s net zero roadmap, but also another key reference plant for our advanced HiPACT® gas treating technology co-developed with JGC.”

As Japan’s first project to integrate the entire process from production to utilization of hydrogen and ammonia, this demonstration plant is designed to produce approximately 700 tons of blue hydrogen annually. Of this, 600 tons will be supplied for power generation at hydrogen-fired facilities in the Kashiwazaki Hydrogen Park, providing electricity within Niigata Prefecture. The remaining 100 tons will be converted into approximately 500 tons of blue ammonia annually and supplied to customers within the prefecture. Roughly 5,500 tons of CO_2 per year generated as a byproduct are expected to be captured and injected underground for reduced atmospheric emissions using CCS technologies. The project’s hydrogen and ammonia production and CO_2 capture are subsidized by the Japanese governmental organization New Energy and Industrial Technology Development Organization (NEDO). The joint research for the evaluation and implementation of subsurface storage of CO_2 is conducted with Japan Organization for Metals and Energy Security (JOGMEC).

About OASE®

With more than 50 years of experience, BASF offers its customers efficient gas treating solutions for a variety of applications such as natural gas, synthesis gas, flue gas and biogas. Worldwide, these solutions have been proven and demonstrated in about 500 reference plants. BASF markets its range of gas treating technologies, the corresponding solvents and complete technical services including the digital platform OASE® connect under the brand OASE® – Gas Treating Excellence by BASF. The OASE® products are part of the system solutions that make a significant contribution to sustainability in the value chain. Compared to conventional technologies, OASE® offers high efficiency in gas treatment and thus makes important contributions to conserving resources and reducing emissions by saving energy. For more information, please visit www.basf.com/oase.

About BASF Intermediates

BASF’s Intermediates division is a leading global provider in the development, manufacture and marketing of chemical intermediates. With more than 600 products in our portfolio, including amines, diols, polyalcohols, acids and specialties, we offer innovative solutions for a wide range of industries, from coatings and plastics to pharmaceuticals and crop protection. We also provide OASE® gas treatment solutions and offer other proven intermediates technologies for licensing. Our products and technologies can improve the properties of end products and increase the efficiency of production processes. As an ISO 9001-certified division, we operate a global network of production sites in Europe, Asia and North America. Further information at www.intermediates.basf.com.

About JGC

In its Mid-Term Management Plan "BSP2030," announced in May 2026, JGC Group has positioned the expansion of its solution business as a key strategic priority for growth, capitalizing on the strengths developed through its integrated engineering and functional materials manufacturing businesses. By leveraging the insights gained from this demonstration test, JGC Group aims to accelerate the adoption of HiPACT® in CCS and CCUS projects in Japan and abroad, while expanding its application to hydrogen and ammonia projects.