

A NEDO Green Innovation Fund Project: Development of CO₂ Capture Technology for the Cement Production Process
(category: Development of Technology for Producing Concrete and Cement Using CO₂)

Commencement of construction of C2SP kiln[®] demonstration equipment for CO₂-capture in the cement production process

Taiheiyo Cement Corporation (Headquarters: Bunkyo-ku, Tokyo; President: Masafumi Fushihara) has been developing the C2SP kiln[®] CO₂ capture technology under the project to design and demonstrate technology for CO₂ capture in the cement production process. This project was adopted by the New Energy and Industrial Technology Development Organization (NEDO) of Japan for its Green Innovation Funding Program on January 28, 2022.

On September 9 this year, we started construction of the demonstration equipment for CO₂-capture in the cement production process and carried out a safety ceremony for the work.

About 60% of CO₂ generated from the cement production process comes from decarbonation of limestone, the main raw material of cement. With focus on that fact, the current project aims to develop an efficient CO₂ capture technology by installing a unique “CO₂-capture calciner” in the preheater system where the decarbonation reaction takes place.

Equipment Name	Demonstration equipment for CO ₂ -capture from the cement production process
Construction Site	Sanyo Onoda City, Yamaguchi Prefecture (in Onoda Plant, Taiheiyo Materials Corporation)
CO ₂ capture capacity	2.4 tons/day (clinker production capacity: 5 tons/day)
Scheduled start of the demonstration test	In the second half of fiscal year 2023

Development of carbon recycling technology optimized for the cement production process is the top priority for our future and an important growth strategy of ours. We will further accelerate our efforts to establish the technology as soon as possible and to achieve carbon neutrality by 2050.



Construction safety ceremony

* C2SP kiln[®] incorporates a “CO₂-capture calciner” which can efficiently capture-CO₂ in the cement production process.

Related News Release:

January 28, 2022: Adoption of “Development of CO₂-Capture Technology for the Cement Production Process” as a NEDO-funded project under the Green Innovation Funding Program towards the world’s first cement production process to successfully capture limestone-derived CO₂ in the preheater

<https://www.taiheiyo-cement.co.jp/english/summary/pdf/220128.pdf>