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Research & Development

Introduction

In order to continually identify and deliver the best available solutions to our clients, SUEZ's Research & Development team conducts in-house programs to improve our existing products and develop new ones in many areas including:

- Oil & Gas Production,
- Industrial Gas Processing,
- Produced Water Treatment,
- Carbon Capture.

SUEZ also offers a range of client services, from process design to pilot plant fabrication, to enable the development of novel and inventive processes. With years of experience and a long track record of innovative process design our goal is to be your development partner of choice.

Capabilities

SUEZ offers a complete range of design and fabrication services to facilitate your project development.

Services offered

- Process development for novel processes,
- Pilot plant design and fabrication,
- Process scale-up from lab to pilot to commercial scale,
- In-situ field testing.

SUEZ maintains a number of Produced Water Treatment test rigs for conducting in-situ field trials on your operating plant.

Improvements to Product & Process

Continuous product and process improvement by in-house R&D and Engineering departments means SUEZ can offer the best technology available for your process and innovative solutions for your design issues.

Resources

SUEZ's highly motivated technical staff posses a wide range of specialist disciplines including process, chemical, mechanical, electrical, and instrument engineering. Their experience provides significant depth to the organisation's skills and capabilities.

Hazelwood Power Station Carbon Capture Plant
Location: Victoria, Australia

SUEZ – Oil & gas systems
(incorporating Process Group)
Australia - Korea - Middle East - Singapore - USA

www.processgroupintl.com

Represented by:

Research & Development

SUEZ uses a range of sophisticated process simulation, mechanical, and drafting tools enabling it to complete all detailed design in-house. Fabrication and assembly is then carried out in SUEZ's own workshop. In-house control of all aspects of production means we can offer a high degree of design and manufacturing flexibility.

Affiliations

SUEZ is a supporting participant in the Cooperative Research Centre for Greenhouse Gas Technologies (CO2CRC) and a founding member of the Global Carbon Capture and Storage Institute (GCCSI). As such, SUEZ has access to some of the latest developments and advances in CCS.

Our Clients

- Woodside
- Shell
- International Power Australia
- CO2CRC
- Magma Oil
- Westec Environmental Solutions (WES)

Track Record

SUEZ has a long history of designing novel solutions to meet clients' demands including:

Carbon Capture

- CO2CRC's Otway Geosequestration Pilot Plant,
- International Power's Hazelwood Power Station solvent carbon capture and mineral sequestration plant,
- Solvent, adsorbant and membrane pilot plants for the CO2CRC,
- Ongoing development into reducing carbon capture plant cost via heat integration and modularisation of large process vessels.

Produced Water Treatment

- Tungsten & silicon carbide hydrocyclones for extreme erosion and corrosion resistance,
- Automated sand flushing and washing systems incorporating mercury containment,
- Innovative Induced Gas Flotation (IGF) system to meet ever lower discharge limits.

Pilot Plants

- CryoCell cryogenic CO2 removal pilot plant,
- CO2 recovery from soft drink bottling process,
- Topside processing for previously untested Underground Coal to Liquids (UTCL) process, including above-ground test facility that simulated the coal face under controlled conditions.
- Gas to Liquids (GTL) pilot plants.

Intellectual Property

SUEZ has filed a number of Australian and International patents and trademarks relating to a variety of proprietary technologies developed via its R&D program.

Patents

- Mass transfer technology
- Carbon Capture & Storage
- Gas Flotation

Trademarks

- CYCLONIXX® Hydrocyclones
- TUNGSTONE® Hydrocyclone materials
- GLYNOXX® Process