

S3-4

Gas turbine power plant construction under emergency power needs after the earthquake

Masashi Sugihara
Hitachi, Ltd., Tokyo, Japan

Keywords: H-25 type simple-cycle gas turbine, short-term construction,

Abstract

Thermal power plants which were located in the Pacific Ocean side of east Japan were received extensive equipment damage by the Great east Japan earthquake and tsunami that occurred on March 11, 2011.

Due to the effect that, early installation which was targeted on the winter in 2011 of power generation equipment in east Japan was social demand.

Based on this request, Hitachi, Ltd. was received the order of H-25 type simple-cycle gas turbine power generation equipment for emergency power supply by Tohoku Electric Power Co., Inc., and had been able to achieve starting operation in a short term construction of the equipment by the support of Tohoku Electric Power Co., Inc.'s cooperation and the rapid response of Hitachi.

1. Basic plant specification

Gas Turbine	H-25 type simple-cycle gas turbine
Fuel	Natural gas
Rated output	34,000kW (at -1 degree C)
Type of NOx reduction	Combustor with water injection
NOx regulation	25ppm

2. Feature

- (1) Equipment configuration is simple and is installed in short-term construction
- (2) Short start-up time

3. Project schedule

(1) NTP	Apr, '11
(2) Civil start	Jul 1, '11
(3) GT on base	Oct 1, '11
(4) Commissioning start	Dec 1, '11
(5) Commercial operation	Jan 31, '12