

Yanbu Power Plant - Cogeneration

CAPACITY: 512 MW

A major utility company in Saudi Arabia contracted CMC Solutions to certify nine PEMS on combine cycle turbines that combust sales gas and light fuel oil. Eight of the turbines operate at 56 MW and one operates at 64MW. The PEMS were set to monitor SO₂, NO_x, O₂, CO, and CO₂ from the exhaust stack for all nine units.

The equipment was installed and started up on April 2015. The specific regulations governing these turbines are 40 CFR Part 60 and 40 CFR part 75. The PEMS installed are SmartCEMS® Analyzers and they were provided by CMC Solutions.

Data from the plant control system was collected and correlated with data obtained from a temporary continuous emissions monitoring device (CEMS). The process and emissions data was collected under normal operating conditions. During this time, the units were operated through their full operating range. The CEMS data correlated that the PEMS was certified under 40 CFR Part 75 subpart E.

DAS System: ABB-CMC Solutions

History of Project Development:

04/01/2015

Model Development Data collected for nine combine cycle turbines.

05/01/2015 – 06/06/2015

RATAs on all nine turbines conducted.

06/07/2015 – 07/01/2015

Subpart E demonstration conducted.

03/01/2016

PEMS certified.



PRODUCTS:

