

# Denison, Iowa Plant - Chemical Processing

## **CAPACITY: 100 mmBTU**

An energy company owns and operates a combustion process at an ethanol processing facility in Denison, Iowa. The ethanol process combusts exclusively pipeline natural gas to drive a 100 mmBTU heat recovery steam generator (HRSG) for production of steam used in the distilling process. The exhaust gas stream is discharged to the atmosphere and emissions are monitored using a PEMS and a data acquisition system under the requirements of 40 CFR Part 60.

Federal Regulations promulgated in the New Source Performance Standards of 1974 are applicable to the unit. These regulations specify emission limitations for nitrogen oxides. The regulations require installation, calibration, maintenance, and operation of a data acquisition system for documentation and reporting of operating data and nitrogen oxides emission rates. Additional monitoring, record keeping, and reporting requirements are specified in the local operating permit (AQB IDNR).

A data acquisition system (DAS) provided by Honeywell was started-up to record the operating and emission data in March of 2006. The DAS collects the process, emissions, and gas flow data for the 40 CFR Part 60 regulatory reporting purposes. The system utilizes data from a number of process control inputs and the results of test data to model the nitrogen oxides emission rates.

**DAS System:** Honeywell - Cirrus

### **History of Project Development:**

**01/20/2004**

The initial permit to construct was issued by the Iowa DNR. Permit No. 04-A-642.

**10/17/2005**

Quote issued for training data for model development.

**01/13/2006**

CMC Solutions issued a quote for a PEMS system.

**02/20/2006**

The alternative monitoring plan (AMP) was prepared and submitted.

**03/01/2006**

QA Plan was submitted.

### **PRODUCTS:**

