

Question 24.13

Topic: Parameters Affecting NO_x Emission Rate

Question: Our plant is installing a new oil and gas fired combustion turbine unit with dry low-NO_x controls. During gas-fired operation, no injection water is needed for control of NO_x emissions. For oil-fired operation we have four operational parameters to assist us in determining normal operation. One of these parameters is water-to-fuel ratio.

However, when under gas-fired conditions, we have only three parameters, because water to fuel ratio is zero. Under the requirements of Appendix E, four parameters are required. Under gas-fired operating conditions, are three parameters satisfactory given the CT's dry low NO_x controls?

Answer: No. You must define four parameters that affect the NO_x emission rate when firing natural gas in dry low-NO_x firing mode. All four parameters must indicate whether or not the unit's dry low-NO_x controls are operating in a controlled mode.

References: Appendix A, Section 2.3.1

History: First published in October 1999 Revised Manual; revised in 2013 Manual