

## 5.5 What are the on-going quality-assurance requirements of Appendix E?

The on-going quality-assurance requirements for Appendix E units are as follows:

• **Parameter Monitoring.** Once the initial correlation curve has been developed, Appendix E requires hourly monitoring of the parameters that were monitored during the baseline emission testing (i.e., excess O<sub>2</sub> for boilers and the four parameters associated with NO<sub>x</sub> formation for turbines and diesel or dual-fuel reciprocating engines).

If, for any boiler operating hour, the excess O<sub>2</sub> data is missing or invalid, or if the excess O<sub>2</sub> level is greater than 2% O<sub>2</sub> higher than the value observed during the baseline emission testing at the same heat input rate, then substitute NO<sub>x</sub> emission rate data must be reported for that hour. Similarly, for turbines, diesel and dual fuel reciprocating engines, for any hour in which some or all of the required parametric data is missing, invalid or outside the acceptable ranges established during the baseline emission testing, missing data substitution must be used for NO<sub>x</sub> emission rate.

• **Periodic Re-testing.** Appendix E requires periodic re-testing of each affected unit once every 5 years (20 calendar quarters), to determine a new correlation curve. Unscheduled re-testing is also required if:

- ☐ For boilers, the excess O<sub>2</sub> level at a particular heat input rate is more than 2% O<sub>2</sub> greater than the value observed during the baseline emission testing, for more than 16 consecutive unit operating hours; or

- ☐ For combustion turbines and for diesel or dual-fuel reciprocating engines, some or all of the required parametric data is outside the acceptable ranges established during the baseline emission testing for more than 16 consecutive unit operating hours.

• **QA Plan.** The owner or operator of an Appendix E unit is required to develop and implement a quality-assurance (QA) plan for the unit. The contents of the plan are specified in section 1.3.6 of Part 75, Appendix B and section 4 of Appendix E. At a minimum, the QA plan must include:

- ☐ The data and results from the initial and most recent NO<sub>x</sub> emission rate testing, including the parametric data;

- ☐ A written record of the procedures used to perform the NO<sub>x</sub> emission rate testing;

- ☐ The quality-assurance parameters that are monitored and the acceptable values and ranges of those parameters;

- ☐ Records of the monitored parametric data for each unit operating hour; and

- ☐ Because Appendix E requires an Appendix D fuel flowmeter to be used to monitor the hourly unit heat input rate, the flowmeter must meet the on-going QA requirements of Appendix D. Therefore, the the QA plan must also include the elements described in Section 4.8 of this guide.