9.5 What is conditional data validation?

When a significant change is made to a CEMS (e.g., replacement of an analyzer) and the system must be recertified, the CEMS must pass a series of recertification tests before it can be used to report quality-assured data. In most cases, recertification takes at least 7 days (since a 7-day calibration error test is usually one of the required tests).

However, while the recertification tests are in progress, the requirement to report emissions data for every unit operating hour remains in effect. Without regulatory relief, this could result in an extended period of missing data substitution, and possible loss of allowance credits.

To alleviate this situation, §75.20(b)(3) of Part 75 allows conditional data validation (CDV) to be used for recertification events. Conditional data validation provides a means of minimizing the use of substitute data while a CEMS is being recertified. To take advantage of this rule provision, as soon as the monitoring system is ready to be tested, a calibration error test is performed. This is called a "probationary calibration".

If the probationary calibration is passed, data from the CEMS are assigned a conditionally valid status from that point on, pending the results of the recertification tests.

If the required recertification tests are then performed and passed within a certain time frame[70], with no test failures, all of the conditionally valid data recorded by the CEMS from the date and hour of the probationary calibration to the date and hour of completion of the required tests may be reported as quality-assured. However, if one of the major recertification tests (such as a linearity check or RATA) is failed, then all of the conditionally valid data are invalidated and missing data substitution must be used until all of the required tests have been successfully completed, or until corrective actions are taken and a new period of CDV is initiated.

Part 75 extends the use of conditional data validation beyond recertification events. The procedures may also be used for initial certification, diagnostic testing, and for routine QA testing. Note that: (a) for initial monitor certification at a new or newly-affected unit; and (b) for required monitor certifications when emission controls (e.g., FGD, SCR) are added to a unit or when a new stack is constructed, CDV may be used for the entire window of time allotted to complete the certification testing (i.e., at least 90 days, and up to 180 days in some cases---see §75.4). For these events, the shorter time frames for test completion in §75.20(b)(3)(iv) do not apply[70].

Conditional data validation is also useful when:

• Monitor repair or maintenance activities are performed that trigger diagnostic test requirements; or

• A routine QA test, such as a linearity check or RATA is failed or aborted due to a problem with the monitoring system and the test must be repeated.

In these instances, if a probationary calibration is done following corrective actions, CDV may be used until the required diagnostic test or QA test has been completed.