

Addendum to Negative Values
February 28, 2011

AQS Users:

AQS had been accepting, but, effective immediately, **will no longer accept** the qualifier code "9" ("Negative value detected - zero reported") for the following:

12128	Lead (Tsp) Stp
42101	Carbon Monoxide
42401	Sulfur Dioxide
42406	SO2 max 5-minute average
42600	Reactive Oxides of Nitrogen (NOy)
42601	Nitric Oxide (NO)
42602	Nitrogen Dioxide
42603	Oxides of Nitrogen (NOx)
44201	Ozone
81102	Pm10 Total 0-10um Stp
82128	Lead Pm10 Stp
85101	Pm10 - Lc
85128	Lead Pm10 Lc
88101	Pm2.5 - Local Conditions
88128	Lead Pm2.5 Lc

Also, AQS does **not** presently allow the qualifier code "9" for the following pollutants:

14129	Lead (Tsp) Lc Frm/Fem
84128	Lead Pm2.5 Stp
85129	Lead Pm10 Lc Frm/Fem
86101	Pm10-2.5 - Local Conditions
86502	Acceptable Pm10-2.5 - Local Conditions

Again, as stated in the "Negative Values in AQS" note:

We have recently received several inquiries about the handling of small negative values for gaseous parameters (particularly 5-minute SO2). Previously, the practice had been to replace the negative value with a zero, and to flag the value with the qualifier code '9'. The OAQPS monitoring group has determined that this introduces statistical bias into the computations. Effective immediately, AQS will accept negative values down to the negative of the Method Detection Limit (MDL). AQS will reject values lower than the negative of the MDL. Data submitters are requested to report negative values (down to the -MDL) and not do a zero substitution. Users are advised to replace more negative values with a null data code (e.g. 'DA').

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April 22, 2011 Update: AQS Qualifier code "9" – "Negative value detected – zero reported" – this qualifier is again being allowed for a *limited* time.

In the past month or so, there has been considerable discussion on using this qualifier code. The AQS Team recognizes that the practice has been to replace the negative value with a zero, and to flag the value with the qualifier code "9." However, the OAQPS monitoring group has determined that this practice introduces statistical bias into the computations. Consequently, the AQS Team disallowed qualifier code "9" for the pollutants, above. However, we received requests from several agencies to allow qualifier code "9" until these agencies could update their own programs to comply. So, we **are allowing qualifier code "9" again but expect to review the issue in August 2011.**