Question 9.25

Topic: Span and Range

Question: If the maximum potential SO_2 concentration is 2,454 ppm, when multiplied by 1.25 (rounded up to the nearest 100 ppm), equals a span value of 3,100 ppm. In this case if the maximum possible span value of 3,100 ppm is selected, is the source allowed to use a full-scale range value of 3,000 ppm and if so, what value would the gas cylinder concentrations be based on?

Answer: No, the full-scale range of the instrument must be greater than or equal to the selected span value (See, Part 75 Appendix A §2.1.1.3). Thus, using a monitor with a full-scale range of 3,000 ppm (i.e., 100 ppm less than the reported span value) is not acceptable. However, if you desire to set the range of the monitor at 3,000 ppm you could choose to instead report the span as 3,000 ppm which is between 1.00 and 1.25 times the maximum potential SO_2 concentration.

References: Appendix A, Sections 2.1.1.3

History: First published in Original March 1993 Policy Manual; revised in October 1999 Revised Manual; revised in October 2003 Revised Manual; revised in 2013 Manual