Fixed Air Monitoring Stations
PR-HQ-04-11505
Questions and Answers 34-38
Posted August 23, 2004

Q34. Can the time signal of a GPS receiver be utilized in lieu of the NIST radio receiver listed in C.5d?

A34. The intent of this requirement is that the monitoring station clock be periodically and automatically resynchronized with a reference standard of known accuracy, by radio signal, and without any intervention by the operator. EPA will accept alternatives to a WWV receiver if the method proposed provides the intended functionality, and that traceability of the signal to NIST can be established. However, if components are used that provide data other than that specified in Section C.8 (such as latitude and longitude), that data must not be stored in the data logger.

Q35. Are all four telemetry methods listed in C.9 required to be provided in the bid or just a duplicate telemetry method to back up the land line modem?

A35. All four telemetry methods listed in C.9 are required to be provided.

Q36. The system to be proposed by our company will be capable of operating with all four telemetry methods. Does EPA want the hardware for all four methods supplied?

A36. Yes, the hardware for all four telemetry methods is to be provided.

Q37. Examination of COMMERCIALLY OFF-THE-SHELF (COTS) telemetry and computer equipment reveals that the operating temperature range is generally 0ºC to 50ºC.

The EPA in A12 has stated that heating and cooling is not required. Based on the temperature range of COTS computer and telemetry equipment it appears that the lower value of the temperature specification in C.1.a (-30ºC to +45ºC) of the SOW may subject one or more components of the computer and telemetry equipment to possible damage or inability to function in very cold climates.

This will be particularly true if an operator opens the door at very low local temperature conditions. The screen on the display for the local user interface may not be visible.

It would appear that some flexibility should be provided for additional amperage or for access to a separate circuit to implement heating, if needed, at certain times during the year.

A37. The ambient temperature operability requirement applies to the overall monitoring station rather than individual components. In developing the specifications, EPA determined that commercially-available components for performing all of the required monitoring station functions are available that will perform satisfactorily in the specified range of ambient conditions. In some

cases individual components were found to perform satisfactorily at wider ambient (outside the enclosure) temperature ranges than recommended or guaranteed by the component manufacturer, particularly when co-located within an enclosure near other electrical or electronic components that generate heat.

Offerors should base their quotations on using components that will perform under the specified range of ambient conditions, but may assume that the equipment enclosure will not be opened for more than five minutes during routine operations.

Q38. After consultation with the local government building department engineers, we believe that the weight limits quoted in the bid are too restrictive. This is based on the fact that there is a difference between live load and dead load weights. As defined by code, a live load weight is something that will exert a given weight for a short or temporary period of time.

As defined by code, a dead load weight is something that will exert a given weight for a long term or a permanent installation.

The International Building Code allows a maximum total weight of 47 pounds per square foot, which includes both live and dead weight. Based on these weight limits, the overall weight including both live and dead weight, can be a maximum of 752 pounds. When the allowed weight of 150 pounds for the operator is removed, this will allow a dead weight of up to 602 pounds total to be distributed over the 16 square foot area of the roof.

We believe that it would be a more reasonable limit if the specifications called for a total weight limit of 90% of the allowable dead weight which would be a total of 542 pounds. This will give a weight of 34 pounds per square foot of surface area.

A38. Some of the building roofs on which the monitoring stations may be installed are old buildings (circa 1950 or earlier), so today's building codes may not be relevant. In addition, in many locations additional allowance must be made for loading from snow and ice accumulation. EPA believes that all the required functions can be implemented in a device weighing less that the specified 150 pounds.

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