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METHODS 8240 AND 8260 DIFFERENTIATION AND EQUIVALENCY

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

MAY 9 1991

Nicolas H. Roelofs, Ph.D.
Nevada Environmental Laboratory
1030 Matley Lane
Reno, Nevada 89502

Dear Dr. Roelofs:

I am writing in response to your letter of May 1, 1991, to David Bussard regarding the differentiation and equivalency of Methods 8240 and Method 8260.

As you are aware, both methods are determinative procedures for the analysis of volatile organics by gas chromatography/mass spectrometry. The two methods are very similar and differ primarily in the gas chromatographic column used to effect separation. Method 8240 utilizes packed columns, where Method 8260 utilizes open tubular capillary columns.

The two types of gas chromatographic columns both provide separation of analytes targeted for analysis, but are not technically equivalent in their separation ability. It is Agency policy to allow the substitution of equivalent or superior materials within the analytical procedures of SW-846 unless otherwise specified in regulations. For example, Method 8240 Section 4.12.2 allows the substitution of equivalent packings. Furthermore, Method 8000 Section 4.2 permits other packed or capillary columns to be used provided the performance test requirements of Section 8.6 have been met. Therefore, capillary columns (with or without cryogenic cooling) may be substituted for the packed column of Method 8240, if the ability to generate acceptable accuracy and precision by Method 8000 Section 8.6 has been demonstrated.

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We are aware that the delay in promulgating the methods of the first update package has added further complications regarding the utilization of Method 8260, which has not been promulgated in its final form. We are expediting the final promulgation of the methods contained in the first update package to remedy this situation as soon as possible. If you have any questions on this issue, please contact John Austin at (202) 382-4761.

Sincerely,

Alec McBride, Chief
Technical Assessment Branch