EPA Excerpts

Manning has been in the fluid monitoring business for over 25 years. With this expertise to draw on, we continue to refine our products and introduce new ones.

The Harris Keffer report is often quoted in sampler reports and documents. Below is the complete section (pages 80 & 81) pertaining to selection of sampling equipment as it is written in the summary. Please note that anything can be taken out of context and used to misrepresent the issues. Manning encourages you to look at the summary in its entirety. If you are interested in the complete report, it is currently available from NTIS; Document PB259875; phone 800-553-6847; $41 + SH.

"3. SELECTION OF SAMPLING EQUIPMENT. Although the results of the sampler comparison studies are not conclusive and additional work is needed, it is the opinion of the Field Investigations Section that high-vacuum, sampling equipment produces more representative samples. On waste sources with appreciable concentrations of large and/or heavy settleable [sic] material such as raw municipal wastewater, the section makes every effort to install a high vacuum unit when compatible with the site conditions and data requirements. Since these units yield higher results, they are of advantage to treatment plants in determination of removal efficiencies. Variations in compositor performance at effluent sampling stations were found to be smaller due to water chemistry equalization resulting from plant retention times and, it is felt, to the lower levels of suspended material which are smaller, more uniform, and of lower density than the particles found in raw waste. Although high-vacuum samplers can be effectively used on these wastes, the data would indicate that well-treated effluents with no visible solids can be representatively sampled with the slower acting compositors."

Solids concentrations in the report were attributed to several factors. In its entirety, this section is several pages, therefore, only an excerpt of the section is shown below.

"The comparison studies indicated that the high vacuum, high liquid intake velocity samplers were more effective in capturing solid material. Although these units also produced higher concentrations of BODs and COD, the increase in the NFS was disproportionately greater. It would appear that the slower-acting peristaltic and piston pump type samplers are either not capturing settleable [sic] materials or that after introduction to the intake line particle settling velocities are higher than liquid intake velocities. Another factor could be the agitation of sample increments during collection. The greater intake velocities of those compositors which have yielded high strength samples may be breaking up larger size suspended material as the aliquot passes through the sampling train and into the collection container. In the laboratory, suspension of smaller sized particles would be more amendable to extraction of representative amounts of residue with routine pipetting procedures."