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UTILIZING COLORIMETER/HAZE ANALYZERS FOR ONLINE QUALITY CONTROL AND INTERFACE DETECTION WITH SPECIALTY FUELS

Kam Mohajer

KAM CONTROLS, INC., 3939 Ann Arbor Drive, Houston, Texas 77063 USA

This paper will analyze the role of Colorimeter/Haze Analyzers in the unique quality control, interface detection, and/or security challenges created by today's specialty, dyed, and aviation fuels. Historically, interface or batch detection was done by first batching fuels of greatly disparate densities against each other in the pipeline, then using densitometers to monitor density changes. Specialty and/or dyed fuels have minute or no density variation and thus render density measurement for interface detection nearly obsolete.

Because Colorimeter/Haze Analyzers utilize the principles of light refraction rather than density to measure fluid properties, they are uniquely qualified for interface detection and quality control issues in specialty fuels. Colorimeter/Haze Analyzers use fiber optics to pass colored light through fluids, and then measure the return absorption. Results are represented by colors corresponding to numerous industry scales, but cover the full spectrum of visible color.

Additionally, Colorimeter/Haze Analyzers detect haze or trace dissolved water, which often contaminates fluids in transit. This is a particularly important quality control issue as haze may be detectable to the end user's eye.

Finally, with the rapid of escalation of security concerns around fuel transport and contamination, in particular aviation fuels, Colorimeter/Haze Analyzers offer the most specific and accurate quality assurance available.