

The Guide Post Newsletter

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Global Restructure of Natural Gas Market

The US shale revolution is driving a dramatic restructuring of global natural gas markets, which is also creating opportunities and incentives for moving the “surplus” lower-cost gas from the United States into higher-value global markets via liquefied natural gas (LNG) exports. This demand and growth is being led by a combination of fuel switching toward LNG in response to lower prices and reduced upstream investment reducing domestic production. China, India and new emerging markets, such as Egypt and Pakistan, are leading this path as well.

Due to this growing market demand, the United States is expected to become the leading net exporter of LNG on an average annual basis by 2018, according to the recently released Annual Energy Outlook 2017 (AEO2017). It is also predicted to be the leading exporter of total energy in the 2020s in large part because of increasing natural gas exports. (US Energy Information Agency Feb 22, 2017).

With over 30 years’ experience of process measurements, the experts at Guided Wave can assist you in matching product solutions to applications. We offer a variety of technologies for online measurements of the natural gas processes in order to keep your plant optimized and competitive. See [LNG Application Note #3080](#).

Product Pipeline Interface Detection

Petroleum product pipelines are an efficient method of delivering product to distribution terminals. These pipelines are multi-purpose, in that they deliver many different products through one or two pipes. Usually fuel products are injected into the pipe sequentially, with no barrier between products.

What happens when transitioning from one fuel to another (i.e. diesel to gasoline, high to low octane)? A mixture phase is present where two products are blended over a period of time. Terminal operators must switch between Product A, Slop, and Product B tankage precisely, otherwise product quality can suffer, and/or too much must be re-refined. Mistakes can be costly and time consuming.

Today, NIR spectroscopy (either full spectrum or discreet wavelength photometers) can be used to quantitatively detect pipeline interface transitions by comparing the current sample in the pipe with a library of samples in the analyzer’s database. This provides significant information about the product and classifies it as one of various grades of gasoline, diesel, fuel oil, etc. to allow automatic valve switching, so that more fuel can be used and sold, without waste.

Please contact Guided Wave for more information on how NIR spectroscopy can be used in your pipeline to quickly and efficiently identify the changing samples giving you uncompromised quality and competitiveness. See [Fuel ID in Pipelines Application Note #3027](#) or request paper: [“A Novel Configuration for NIR Analysis of LPG Composition and Quality Control Refinery Setting.”](#)

Join Us at ISA and Gulf Coast Conference

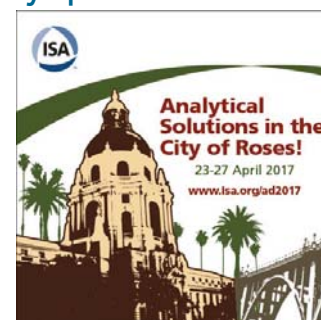
Guided Wave will be exhibiting at the following shows:

ISA 62nd Analysis Division Symposium

April 23-27, 2017
Pasadena, California USA
Booth #109

Gulf Coast Conference

October 3-4, 2017
Houston, Texas USA
Booth # to be announced



Color Analyzers for Pipeline Monitoring

Given the large volumes of LNG under transport, ROI from using real-time measurement systems, such as the Guided Wave's Saybolt Color Analyzer, can be measured in days! Prior to liquefaction, residual materials are removed with only clean hydrocarbons remaining. The composition of natural gas can vary slightly from different producing locations. Typically LNG is a colorless material, but during distillation the carryover of larger hydrocarbons (C6+) can affect the color of the LNG.

Many liquid product specifications are based on color measurements. Changes in color can be an indicator of final product quality as well as a mean to control process variables when implemented in real time. Many different color "scales" are utilized in measuring color in different products or industries. Some common examples are Saybolt, ASTM color, and APHA (aka Platinum-Cobalt, or Hazen). Measuring the Saybolt or ASTM color online is a key parameter in many light hydrocarbon mixes for quality control to detect this carryover. Monitoring the color allows the refinery to verify that the product is within specification. Any "out-of-spec" product can be reprocessed before being sold.

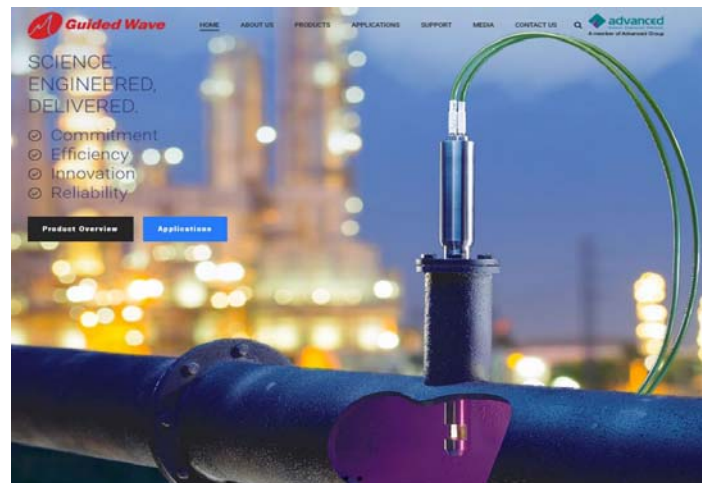
Guided Wave's NEW Saybolt Color Analyzer based on the ClearView db® platform is the first in a series of application driven analyzers used for specific color measurements. Measuring color using a Guided Wave color analyzer system provides real-time color values that can be used for quality control or product quality certification. The Saybolt Color Analyzer is calibrated for Saybolt and is a ready-to-go solution for accurate, real-time, reliable fuel quality and control results. [Learn More](#) or [Saybolt Application Note #1062](#).

Guided Wave Offers Customizable Training Courses

Next Training Course May 23-26

Each course is now one day, so different course topics or levels can be taken in just a few days. Courses are instructed by knowledgeable experts, each with extensive professional experience at Guided Wave. For full list of topics, dates and [agendas or to register visit our website](#).

- Instrument type and topics can be customized
- Small class size for more one-on-one instruction
- Copies of all training material provided electronically
- Classroom and hands-on activities
- Courses available at your site and at Guided Wave worldwide



GW Website Gets Make-Over

Introducing the NEW Guided Wave website and corporate brochure. The new site was designed so any device of any screen size can display the sites content in a functional and user-friendly way, including navigation from top and side of your screen. Take a look at the new [Guided Wave Website](#). Here are the top 6 improvements and changes:

- 1) NEW PRODUCT SPECIFICATION PAGES. You no longer have to download the brochure to see the significant specifications of a product. They now can be found after the FEATURES tab on each individual product page.
- 2) ALL DOCS ARE UNDER MEDIA. Media replaces the "Knowledge Base" in the old site. The MEDIA tab will have all the product data sheets, application notes and other documents as well as, press releases - Get the new [Corporate Brochure](#) here under documents Choose #2031.
- 3) HELP TO SELECT YOUR PRODUCT/SYSTEM. A quick guide to help choose analyzers; (full spectrum analyzer or filter photometer) plus sample interfaces (probes VS. flow cells).
- 4) EASIER TO REQUEST INFORMATION. There are email forms for custom design, technical support help, applications help and RMA's in several places on the site.
- 5) EVENTS CALENDAR – is located under "ABOUT US". Here you can find events like tradeshow, training dates and all holiday office closures.
- 6) GUIDED WAVE UPDATES – check back often this page will have the most current additions to the site!