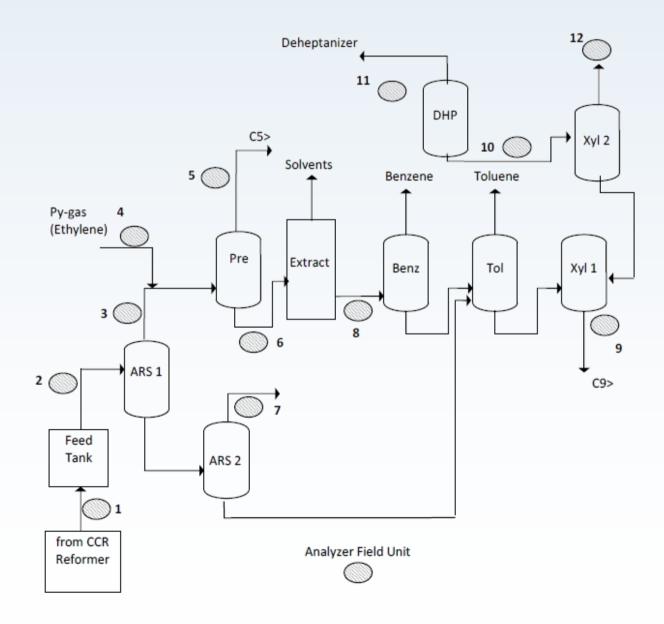
Application Note 32



On-line NIR Analysis in Aromatics Complex

SITE DESCRIPTION

A petrochemical plant in Israel uses on-line NIR (Near Infra Red) analysis to monitor its processes and provide real-time data for Advanced Control Software. A sketch of the plant is shown below. The NIR instrument is a PetroMetriX Beacon 2000 - II Analyzer. The Analyzer is located in control room and is connected to the 12 Field Units via telecommunication fiber optic cable. Field Units are installed at a distance of 150 - 450 meters. Measurement sequence is controlled by optical multiplexer. The system interfaces to a Honeywell TDC-300 using Modbus protocol and PLC.

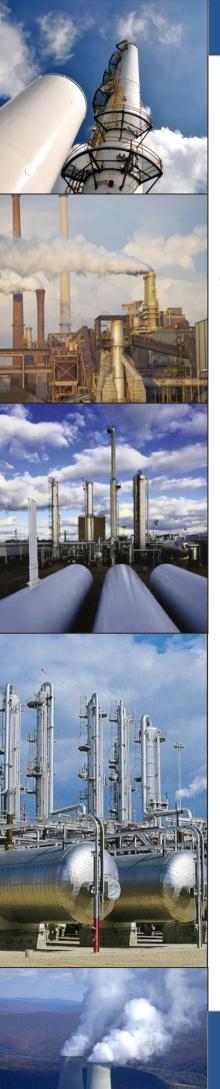


CUSTOMER BENEFITS

The NIR analyzer monitors the streams at specific points where there is a need for a roundthe-clock real time quantification.

The NIR analysis has a much faster response time and lower maintenance requirements than other instruments such as on-line gas chromatographs that have been traditionally used for these applications. Continuous data is provided by the analyzer and used for Advanced Process Control and by optimization software.

Properties	Field Unit #											
	1	2	3	4	5	6	7	8	9	10	11	12
Non-Aromatics	+	+	+	+		+	+				+	+
Benzene	+	+	+	+	+	+	+	+		+	+	
Toluene	+	+	+	+		+	+	+		+	+	
Ethylbenzene	+	+	+	+		+	+	+	+	+	+	+
<i>p</i> - Xylene	+	+	+	+		+	+	+	+	+	+	+
<i>m</i> - Xylene	+	+	+	+		+	+	+	+	+	+	+
<i>o</i> - Xylene	+	+							+	+		+
C9		+							+	+		
2 - Methylpentane		+										
3 - Methylpentane		+										
n - Hexane		+			+							
Methylcyclo- pentane		+										
I.B.P									+			
5% dist.									+			
95% dist.									+			
F.B.P									+			





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