Application Note

Gas treatment plant replaces old protection system with VIBROCONTROL 6000® but keeps condition monitoring system
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The Brüel & Kjær Vibro COMPASS Classic system has been successfully used for protection and condition monitoring at the plant for over 15 years and now the time has come to consider upgrading the aging protection vibration monitoring system. This is a relatively simple task, but in this case the customer had special requirements.

The gas treatment plant includes a gas desulfurization unit to remove the toxic hydrogen sulfide (H₂S) is present in the gas coming from the wellheads and produce elemental sulfur. Therefore there is no tolerance for catastrophic machine failures or defective, leaking machines in this process. Consequently, an effective machine protection and condition monitoring plays a very important role in this plant. Over the years the condition monitoring portion of the legacy system has been optimally fine-tuned to the application and the monitoring system operators have become used to the specific functionality and user interface offered by COMPASS Classic.

For this reason it was not an option to simply change the data acquisition units and start using new condition monitoring software immediately after. At least from the condition monitoring and diagnostics perspective, this posed a risk that could compromise the machine reliability that has been achieved over the years.

Brüel & Kjær Vibro provided a unique solution that delivered reliable machine protection and yet still enabled the customer to continue using the legacy system condition monitoring functionality. All protection monitoring was transferred to the Brüel & Kjær Vibro VIBROCONTROL 6000® system (VC-6000®), which was installed in the cabinets next to legacy data acquisition units. The signal data is transferred from the buffered outputs of the VC-6000® system to COMPASS Classic units, which pre-conditions the signals for further processing in the COMPASS Classic monitoring software and stores them in the database.

As an option, over a period of time, the condition monitoring functionality can be transferred to the new Compass 6000™ monitoring software in steps, as experience is gained and keeping within budget requirements.

This solution is actually applicable to many users who need to upgrade their protection system but want to maintain their legacy condition monitoring functionality, at least until they adapt the new condition monitoring functionality to their application. Therefore an “overlap” period with the new and old systems is a viable solution for many customers.

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