

Pipe support optimization aids front-end design

ASD Global offers a Pipe Support Optimizer product, claimed to add value to its existing Optimized Plant Design suite. The product is based on advanced software algorithms that result in optimization and cost reduction (Fig. 1). It allows concurrent engineering during early phases of plant design.

Features include identifying feasible pipe support locations and automatically locating the minimum required support types. This process is done while performing code compliance checking, accounting for concentrated loads at nodes and reviewing allowable pipe movements. Deliverables include a full stress analysis report for thermal, gravity and seismic loads, generation of stress isometrics and support bill of quantities.

The tool is claimed to help the layout, pipe support and stress engineers working on projects to automatically select, stress-check and design pipe supports—for single or multiple piping system groups together. This gives engineers design automation tools that utilize engineering knowledge to compress their iterative and cyclical work processes into a single cycle. At the same time, optimized results are delivered.

Other features include:

- Finite element modeling
- Full 3D-interference detection for designed pipe support frame structure and surrounding plant environment
- Generation of stress isometrics and support BOQs
- Interface with PDS & PDMS
- Completion of stress analysis in batch or single line.

Circle 1 on Reader Service Card

Machinery services based on pay-for-performance

To improve machinery care services for its clients, Dresser-Rand is offering Availability PLUS, a plan for "machinery healthcare" based on pay-for-performance.

"With Availability PLUS contracts, the

client pays for results, not just product, parts or service," says Luis Rojas, director of Availability PLUS. "The client and Dresser-Rand agree on a certain level of performance. If we meet their expectations, we're paid the full amount. If we fall below expectations, our compensation is reduced. And bonuses are paid when we exceed the established goals."

The concept requires Dresser-Rand to

tion and cleaning services for aboveground storage tanks while they remain in service and full of products.

In collaboration with the New York State Research and Development Authority (NYSRDA) and the New York State Department of Environmental Conservation, InTANK and ExxonMobil are participating in a funded validation project to confirm that robotic inspections provide equivalent results to the traditional, out-of-service method of inspection.

"With this innovative process, tanks stay in-service, thus cutting scheduling and overhead costs by 95% per tank inspection," according to NYSRDA.

InTANK robots inspect the tanks via a process that meets the American Petroleum Institute Standard 653 guidelines for the 10-yr standard inspection cycle, while eliminating manned entry, waste disposal and cleaning needs, and minimizing the time outside contractors are onsite. This approach is claimed to eliminate the need for alternative product storage and lost profits due to downtime.

The time-consuming conventional method requires a tank to be out of service in order to drain, vent and manually inspect tank integrity.

Circle 3 on Reader Service Card

Fully automatic fuel analysis

Two analyzers from Grabner Instruments are fully automatic. The IROX 2000 for gasoline and IROX DIESEL for diesel fuel are equipped with an FTIR mid-infrared spectrometer—instead of filters. This provides high precision due to having complete information. The robust, portable aluminum housing is claimed to make the instruments suitable for laboratory as well as direct field use (12-V battery).

The IROX are claimed to be the only fuel analyzers offering a fully automatic measurement procedure. Simply put the tube into the sample and press RUN. Three minutes later, detailed and highly accurate results are displayed on the large LC graphic display.

The gasoline model IROX 2000 measures the concentration of 30 parameters

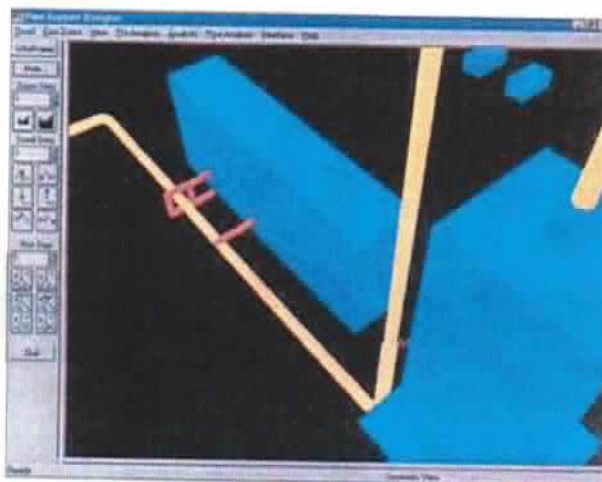


Fig. 1. Fully integrated pipe support analysis and design tool is based on advanced software algorithms.

identify and solve the cause of a client's problem, rather than performing an overhaul or replacing parts. Performance-based contracts may include the following performance metrics:

- Availability
- Reliability
- Capacity (gas compressed or power produced)
- Energy consumption (efficiency)
- Spare-parts inventory reduction
- Safety
- Any other performance metrics the user may require.

Dresser-Rand began developing the Availability PLUS program in the late 1990s. Nearly 20 projects are under contract worldwide.

Circle 2 on Reader Service Card

In-service tank inspection decreases costs, time

InTANK Services, Inc. claims to provide revolutionary technology that reduces downtime and inspection costs. It involves an innovative approach to robotic inspec-