

# A NOVASPECT, INC. SOLUTION

## FIFTY VALVES REPAIRED IN 2 1/2 DAY TURNAROUND

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### Summary

Close cooperation between Novaspect and the Instrument & Valve Services division of Emerson Process Management was required to meet the very fast track established by a large specialty chemical company in central Illinois, for rebuilding nearly 50 critically important control valves in a hydrogen production plant. Not only was the job completed within the allotted 2 1/2 days to the satisfaction of company officials, no significant issues have developed with those valves in more than two years since the turnaround.

### Key Benefits

- The hydrogen plant was back on stream on schedule
- No startup delays were encountered due to control valve problems
- There were no surprises for the customer either during or after the outage
- Reliability of the rebuilt valves has been exceptional

### The Whole Story

When a massive repair job needed to be done in a very short time at a large specialty chemical company in central Illinois, Novaspect mobilized the resources of Emerson's Instrument & Valve Services (IVS) to get the job done completely and on time - no matter what unexpected obstacles were encountered. Only 60 hours had been allotted during a routine turnaround period for the overhaul of nearly 50 Fisher control valves, a majority of which were pneumatically operated and critical to the production of hydrogen.

Cooperation and advance planning between Novaspect and personnel from the IVS office in Chicago were keys to the success of the fast-track turnaround. Robert Ciganek, Novaspect Account Manager, initiated the planning process months before the outage was to occur. Ciganek, Brian Paz of Novaspect, and Demetrios Saranteas of IVS, developed a blueprint that documented the type and operating characteristics of each individual valve marked for service, listed parts probably needed to rebuild each valve, and identified the personnel requirements to finish the job in the amount of time available. The details of their plan were included in a comprehensive, easy-to-understand proposal that covered all eventualities at a fair price, which the customer quickly accepted.

When the outage began, a crew of eight IVS technicians led by Paz and Saranteas hit the ground running. Each valve was opened up, evaluated to determine its condition, and repaired as necessary. Where possible, the work was done without removing the valve bodies from the process lines.

According to Ciganek, "The team really had it together. Everything was organized so that the parts for each valve were kept in separate boxes until brought together with that specific valve. Communication between the team leaders and project managers at the plant was excellent. They were continually informed of new issues uncovered by the repair team, so there were no surprises as the turnaround period drew to a close."



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Because no smart positioners were involved, the planners could only estimate what work might be necessary once a valve was opened. More than once, additional parts had to be ordered in by overnight delivery. On the other hand, all parts were provided on consignment, so the customer was charged only for those actually used.

"We were prepared to encounter certain worn and broken parts," Ciganek said, "but the condition of some valves was unexpected. In a few cases, internal damage was fairly severe, and those valve bodies had to be removed from the line and rebuilt. A few had to be returned to the IVS Service Center in Oak Forest, Illinois for welding or machining. However, the repair team was very capable and handled every situation with professional efficiency."

During the outage, maintenance work was requested on a number of additional valves not on the original list, extending the project and requiring half of the original crew to remain on-site longer than planned. Novaspect and IVS accommodated this request, as well.

When the job was done, IVS issued a detailed report on each valve rebuilt during the outage. All charges for parts and service above and beyond the original estimate were well documented and approved by the project manager, so all parties were satisfied at the final accounting.

As the turnaround ended, the plant was restarted without incident, with all rebuilt valves performing well, and those valves have been exceptionally reliable ever since.