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## Bilfinger's Turnaround Concept raises general overhauls to a new level

- The general technical inspection and overhaul as a strategic component of maintenance
- The new Bilfinger Turnaround Concept optimizes costs, reduces downtimes, and lengthens the intervals between facility shutdowns
- Bilfinger's experience and systematic approach ensure a maximum level of quality and safety.

A general technical inspection and overhaul is often regarded as a necessary evil. Every two to five years or so, plants used in the process industry need to be shut down for inspection so that any deficiencies can be remedied. For the operators of these facilities, this entails production stoppages and losses of turnover. Bilfinger has developed a new Turnaround Concept that puts plant operators in a far better position to master the challenges posed by a general overhaul.

The general technical inspection and overhaul of a facility, also known in the technical jargon as a turnaround, confronts industrial plant operators with major challenges. Faced with the need to keep downtimes as short as possible, they must plan the turnaround carefully in advance and ensure that it is carried out by seasoned, well-organized professionals.

The new Bilfinger Turnaround Concept, or BTC for short, was developed to address precisely these challenges. Gerald Pilotto, Executive President of Bilfinger's Maintenance, Modifications & Operations (MMO) division for Continental Europe, explains the concept, "Thanks to our Turnaround Concept, we can assist our customers wherever they may need us, while upholding our usual high standard. Our qualified, experienced, and well-organized employees plan the turnaround with painstaking precision and implement it efficiently, whereby quality and safety at the workplace are given top priority at all times."

In actual practice, the process of acquiring the right personnel often proves to be the biggest problem: Since turnarounds are normally scheduled to last no more than a few weeks, enterprises tend to seek outside assistance. Yet they will often encounter a shortage of appropriately qualified personnel and thus have difficulty in assembling and deploying several hundred specialists from different trades and technical fields on short notice. Add to that the fact that these turnover teams often need to be re-assembled for each new contract, so that



planning and coordinating the individual activities present another practical problem to be overcome.

Luckily, the BTC offers solutions for both challenges. First and foremost, it allows the customer to draw upon Bilfinger's many years of experience in this field: With over 20,000 in-house maintenance personnel, a broad supplementary network of partners, and an annual project roster of roughly 30 turnarounds across Europe, Bilfinger has what it takes to serve as its customers' general contractor, long-term and at multiple locations.

More specifically, the concept consists of nine modules covering various aspects such as resource management, workplace safety, and materials management. These theory-heavy modules are supplemented by a comprehensive handbook that defines all the work steps involved in detail, along with their respective interdependencies. Depending on the initial situation at hand, the required workflows pre-defined as templates in the handbook can be individually adjusted to the specific dictates of the prevailing conditions. This produces a complete operational flow chart for all the various simultaneous and sequential work steps, including their cyclical timing. This in turn provides the wherewithal for the exceptionally precise turnaround management, particularly when it comes to minimizing project risks and precalculating costs with maximum accuracy.

A further focal point of the BTC is on readying and compiling all the parts and components required for the maintenance of a given structural element. In this process, which is also known as 'kitting,' all the small parts to be replaced are pre-sorted and packed in the correct quantities for each work step. This means that all necessary spare parts are ready to go once the facility is shut down.

And BTC can also do more: The progress of a turnaround project can be precisely tracked using a mobile app linked up to a central web application. This allows the various technical trades and engineering fields to coordinate hand-in-glove. Supervisors, meanwhile, can respond promptly to plan deviations. Bottom line: Costly wait times and travel times are reduced and the customer saves money. Gerald Pilotto summarizes the system as follows: "Combining the intelligent deployment of skilled personnel with targeted planning and systematic procedures reduces the complexity and expense of the project, while increasing the quality of the work performed. This is how Bilfinger is raising turnarounds to a whole new strategic level."



Bilfinger is a leading international industrial services provider. The Group enhances the efficiency of assets, ensures a high level of availability and reduces maintenance costs. The portfolio covers the entire value chain from consulting, engineering, manufacturing, assembly, maintenance, plant expansion as well as turnarounds and also includes environmental technologies and digital applications.

The company delivers its services in two business segments: Engineering and Technologies and Maintenance, Modifications & Operations. Bilfinger is primarily active in the regions Continental Europe, Northwest Europe, North America and the Middle East. Process industry customers come from sectors that include chemicals & petrochem, energy & utilities, oil & gas, pharma & biopharma, metallurgy and cement. With its 36,000 employees, Bilfinger upholds the highest standards of safety and quality and generated revenue of €4.044 billion in financial year 2017.

