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HAZOP Procedure

A Product Information Sheet by the Steam and Pressure Engineering Business Area

The HAZOP procedure was developed to search systematically for potential malfunctions at technical plants. The name of this procedure is derived from:

Hazard and Operability Study

The HAZOP procedure is extremely flexible and can be applied to both planned and existing systems. The systems to be analysed are not restricted to technical plants alone, but include all types of specific operational sequences.

The HAZOP procedure is carried out by an interdisciplinary brainstorming team who work together with respective competent experts of the owner/operator. Team members are selected according to the phase of the project and in line with the questions to be answered by the analysis. In order to ensure that the analysis is carried out efficiently, the brainstorming team should not consist of too many members.

The HAZOP procedure is based on a methodical „brainstorming“ carried out among the members of the brainstorming team, in which the team’s imagination and creativity is directed by certain key words. To ensure that the analysis is effect-

ive, impartial and not too expensive an independent team leader is required when performing a HAZOP study.

The main task of the team leader, however, is to guarantee that team meetings are systematic and well-structured, and to motivate the team members to work creatively. In addition, the team leader helps to prepare the analysis and co-ordinates the compilation of the report thereon. The HAZOP procedure, which was developed by the English ICI Group of companies, has been successfully applied worldwide to a wide array of plant types. The costs incurred by such a study pay off in a very short time, since the resulting lower potential for malfunctions and increased operational safety and availability, enables the plant to operate more efficiently.

We provide support

TÜV SÜD Industrie Service GmbH offers consulting services and support for a systematic analysis based on the HAZOP procedure in your company. Take advantage of our services when: preparing a systematic analysis as per the HAZOP procedure; consult our experts on the necessary scope of the analysis and selection of the documents to be reviewed,



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- appointing an experienced, independent team leader,
- appointing other experts or specialised consultants who may be required,
- carrying out the HAZOP study with the help of modern data processing and presentation techniques,
- compiling a report on the HAZOP study.

We also offer support in the application of other systematic methods such as failure effect analysis, event sequence analysis, fault tree analysis.

Our expertise for your benefit

For many years, TÜV SÜD has been active in the fields of plant safety and major accident prevention, on behalf of both operators / owners and licensing authorities. We have thus acquired extensive know-how in carrying out HAZOP studies and other systematic analyses.

In keeping with our tradition our experts are independent and unbiased and will process your order with the utmost of confidentiality.

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