**Hazard Operability**

A HAZOP is a qualitative technique based on guide-words and is carried out by a multi-disciplinary team (HAZOP team) during a set of meetings. The HAZOP technique was initially developed to analyze chemical process systems, but has later been extended to other types of systems and also to complex operations and to software systems. Hazard and Operability Analysis (HAZOP) is a structured and systematic technique for system examination and risk management. In particular, HAZOP is often used as a technique for breaking the overall complex design of the process into a number of simpler sections called 'nodes' which are then individually reviewed for the purpose of identifying potential hazards in a system and identifying operability problems likely to lead to nonconforming products. It is based on a theory that assumes risk events are caused by deviations from design or operating intentions. Identification of such deviations is facilitated by using sets of “guide words” as a systematic list of deviation perspectives. It aims to stimulate the imagination of participants to identify potential hazards and operability problems. This approach is a unique feature of the HAZOP methodology that helps stimulate the imagination of team members when exploring potential deviations. The relevant international standard calls for team members to display 'intuition and good judgement' and for the meetings to be held in 'a climate of positive thinking and frank discussion.

**Significance of Hazard Operability**

HAZOP lets plants run safely by allowing safety professionals, to identify and then either control or eliminate hazards. It is a technique by which companies can save money from unnecessary expenditure by employing an efficient knowledgeable HAZOP team. Lastly, HAZOP provides a multidisciplinary look at various processes and through this different types of hazards are identified and lives are saved.

**Components of HAZOP**

