

## HAZID- HAZOP



### Course Features:

Hazard and Operability Study (HAZOP) is a structured and systematic technique for identifying and addressing potential hazards in industrial process and identifying operability problems prior to occurrence of any incident which can potentially affect the safety of persons or assets while also adversely affecting the productivity. On the other hand, HAZID, also known as Hazard Identification, is a qualitative risk analysis technique commonly used for the identification of potential hazards and threats in a process. HAZID focuses on early hazard identification and risk assessment, while HAZOP delves deeper into deviations from the intended design and focuses on operational aspects. The course will enable participants with insights on typical approaches to identify and assess hazards by recognized Process Hazard Analysis (PHA) methods.

All delegates participating should have reasonably good understanding on basic requirements of process safety.

### Course Objectives:

The course objective is to understand the different PHAs, to impart/enhance skills to conduct PHAs and to enable the delegates to plan, conduct and manage HAZOP in accordance with the IEC 61511 and IEC 61508 standard.

### Who should attend ?

- HSE Managers
- Operations executive
- Process, project and engineering practitioners and managers
- Laboratory chemists

### Course Contents:

- Introduction - Process Risk Management, Safety Layers, ALARPS
- HAZID-the PHAs- Check lists, What if, FMEA FTA, HAZOP
- HAZOP-
  - Legal requirements
  - What is HAZOP?, HAZOP Standard
  - Hazards Identification during life cycle
  - HAZOP Management, HAZOP Limitations
  - HAZOP Core elements
  - Guidewords, Common Parameters, Deviations, Causes, Common Deviations and Causes
  - Nodes
  - HAZOP Procedure and Methodology
  - Benefits of HAZOP
  - HAZOP Illustrations
  - HAZOP Practice

### Certificate

Certificate of attendance shall be issued to all the delegates attending entire duration of the training course.

## Duration

2 Days

## About Us:

TUV India Pvt. Ltd. (TÜV NORD GROUP) is a customer-focused, innovative, and independent, technical, quality & safety services organization, dedicated to providing future-proof solutions through technological excellence for the success of its customers with the highest level of integrity. With a presence at over 40 strategic locations in India; a branch office in Sri Lanka and Bangladesh; state-of-the-art laboratories at Pune, Bengaluru, Noida and Jamnagar; 100 important countries worldwide and through digital means, we are always connected to you, our esteemed customer, anywhere, anytime.

We are proud to provide increasing levels of services to the best known, largest global and national companies as well as medium and small industries in diverse sectors like Oil & Gas, Petrochemical, Nuclear, Renewables, Infrastructure, Food, Power, Manufacturing, Chemicals, Pharma, Paper, Automobiles, Railways, Aerospace, Defence, IT, Health, Hospitality, Retail, etc.

Over 1400 competent and experienced TUV India experts spread across India and over 14000 TÜV NORD experts all over the world, enthusiastically support our clients by providing value-added services in Industry Inspection, European / International Approvals, Management System & IT Certification, Sustainability,

Energy Audit, Water Audit, Carbon Services, Building Infrastructure & PMC, Renewable Energy, Food & Packaging Testing, Food Certification & Inspection; Testing of restricted and banned chemicals in Automotive and Electrical & Electronics components and other regulated industries, Product Testing – Electricals, Electronics and Industrial Machinery; Product Certification; Petroleum, Chemicals & Gas Cargo Inspection; Petroleum, Chemicals & Gas Testing; Railway Technology; Engineering, Safety Studies, and knowledge enhancing training programs under TUV India Training Academy.

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- Building, Infrastructure and Project Management
- Renewable Energy
- Railway Technology
- Petroleum, Chemicals and Gas Cargo Inspection
- Product Certification
- Product Testing for Electronics, Electricals, Machinery & Industrial, Automotive Batteries
- Food and Packaging Testing
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- Petroleum, Chemical & Gas Testing
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