



**BUREAU
VERITAS**

HAZARD & OPERABILITY STUDY (HAZOP)

A Powerful Tool for Identifying the Causes of Undesirable Plant Conditions

BUSINESS CHALLENGE

Most industrial licensing authorities and insurance companies require operating companies to carry out hazard studies and risk assessments during a facility design, as well as prior to construction and during operation.

The authorities require that the hazard studies be recorded and acted-upon, and that they be subject to management audit and approval.

SOLUTION

What is HAZOP?

HAZOP study is a well-proven, structured, team-based method for hazard identification at process design completion or for planned modifications. The technique involves detailed examination of the process and engineering intention of new or existing facilities, to assess the hazard potential of operation outside the design intention, or malfunction of individual items of equipment and their consequential effects on the facility as a whole. HAZOP is led by an experienced facilitator. For a project, a core team would typically include personnel from Process, Instruments, Machines, Project Engineering, and Operations, and may require the involvement of process technologists, environmental specialists and corporate Health & Safety and Environment (HSE) staff for some parts of the work.

What are the key benefits?

Comprehensive hazard identification is the cornerstone of effective risk management, given that if a hazard has not been identified then measures can not be put in place to mitigate the risk. A hazard that has been overlooked can have a significant impact on the overall success of the venture. An effective HAZOP provides the most penetrating design review, covering safety, environment, operations, and maintenance.

HAZOP ensures that:

- Potential deviations from intended design function are identified and corrected;
- HSE process and equipment hazards are revealed;
- Actions for necessary process or instrumentation improvements can be planned;
- Action responses are auditable by the management team of the client and Legislative Inspectorates.

RELATED SERVICES

- HAZID
- Process Hazard Analysis
- SIL Assessments
- Fire and explosion assessment
- Hazardous Area Classification
- Layers of Protection Analysis (LOPA)
- SIMOPS
- Safety Cases
- Emergency Response Plans



WHY CHOOSE BUREAU VERITAS?

Recognition Founded in 1828, Bureau Veritas is a world leader specialising in conformity assessment services related to Quality, Health, Safety & Environment (QHSE).

Certified to ISO 9001 for all of its activities globally, Bureau Veritas is well known for its ability to adapt to changing client environments and situations, and for its commitment to providing leading solutions through quality service.

Knowledge & Expertise Through expert local teams and technical knowledge, Bureau Veritas are able to deliver packaged and targeted solutions and information, to support our clients unique business requirements.

Network With a global network of over 900 locations in more than 140 countries, Bureau Veritas provides tailored solutions to clients throughout the world across a diverse range of industries.

OUR APPROACH

Bureau Veritas believes that the HAZOP study is an integral part of the design process for facilities with many unit operations and processes.

Bureau Veritas offers hazard study leadership services across all phases of plant design (covering both green field or brown field), from feasibility and FEED, to detailed design, construction and commissioning. Bureau Veritas often takes full responsibility for HAZOP study recording and reporting, in order to minimise the administrative burden on the designer and client personnel.

Bureau Veritas also offers attendance at designer/client project meetings to ensure that an overview of all HSE issues is available at the meetings, and so that timely advice can be sourced when specialist hazard information is needed.

HAZOP EXPERIENCE

- Bureau Veritas Australia has undertaken HAZOP studies for a wide range of operations including:
- Offshore and onshore Oil & Gas installations
- Major Hazard Facilities
- Refineries & Petrochemical Plants
- Power Stations
- Mine Ore Processing Plants
- Rail Systems

FAQ – FREQUENTLY ASKED QUESTIONS

How long does a HAZOP take?

For the installation of an oil & gas unit on an existing site, each P&ID (Piping & Instrumentation Diagram) might take 5 or 6 hours to study. For the installation of a major new unit on an existing refinery or of the topsides on an offshore platform, 6 to 8 weeks may be required.

Can you advise us what types of hazard study and risk assessment are required for our project and our location?

Yes, we can advise on legislative requirements, legislative changes, and good practice compliance in most parts of the world.

CONTACT

For details about this service, please contact Risk Management Services Aus & NZ

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FOR MORE INFORMATION

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