



T  **MSEY**

TECHNICAL SAFETY
MANAGEMENT EXPERTS

WHO WE ARE



TOMSEY ENGINEERING AND SERVICES INTERNATIONAL LIMITED is an indigenous **TECHNICAL SAFETY SERVICES** provider, positioned to provide key support services to operators in the Oil and Gas, Energy and Industrial sector so as to meet regulatory requirements such as **COMAH** [Control of Major Accident Hazards] regulations (onshore); **PFEER** (offshore) [Prevention of fire and explosion and Emergency Response]; **Offshore Safety Case** regulations (**OSCR**), **Pipeline Safety** regulations (**PSR**); **Dangerous Substances Explosive Atmospheres Regulations (DSEAR)** and other regulations as may be demanded by the National and International regulatory agencies.

TOMSEY competence covers a wide range of technical studies from full management of process

safety requirements for new design (e.g. six stage hazard study approach); or retrospective analysis of existing plant, e.g. **Process Hazard Review (PHR)** studies and retrospective **HAZOP/ HAZID** studies. We provide a full **Quantitative Risk Assessment (QRA)** service that will assess the risk from all process failures as well as fixed plant risk (parts count QRA).

TOMSEY also provides support in relation to ensuring the lifecycle integrity of safety related systems. In particular **TOMSEY** has extensive experience in the strategic areas of process control system integrity and the functional safety requirements of **Safety Instrumented Systems (SIS)** to **BSEN61508/61511** standards.

OUR MISSION



Provide quality Engineering; Technical, Construction and Procurement services to meet our customers' requirements while ensuring that they derive maximum benefits from their investments.

Contribute to the human resources development of our clients by enhancing their knowledge and skills through training intervention in various aspects of operation and technical development.



OUR VISION

To become African's leading Technical Safety services provider within the next 15 years, providing quality technical reviews for our clients driven by international regulations, standards and specification.

OUR CORE VALUES

At **TOMSEY** we take pride in ensuring we provide bespoke services to our clients within our core value chain consisting of **QUALITY, EXCELLENCE** and **INTEGRITY** which are to us -

- **QUALITY:** We ensure that our customers receive goods and services that meets their stated needs
- **EXCELLENCE:** We strive to give the best to our customers and make **TOMSEY** our clients' first choice all of the time
- **INTEGRITY:** Our words are our bounds. We never make promises we cannot keep and neither will **TOMSEY** compromise our client's need for our own gains.



The **TOMSEY** Team comprises of experienced and multi disciplinary engineers with over 20 years individual practical experience in engineering design, construction, operations, project management and technical safety. The team has developed a distinct identity that enable them to work together in a coordinated and mutually supportive way to fulfill the corporate vision of our organization. We pool experience and expertise together in order to ensure excellent team spirit geared towards meeting the goals of our clients.

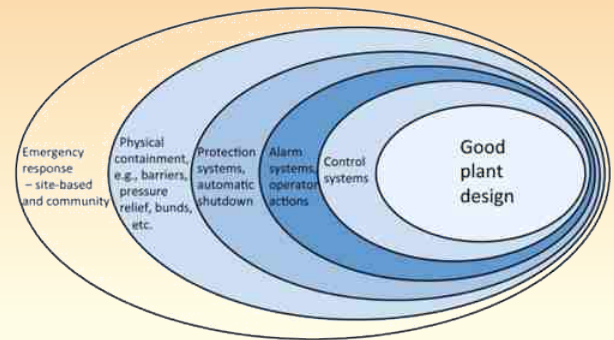
TECHNICAL SAFETY

THE SERVICES WE OFFER

In **TOMSEY** we understand that Safety can be improved over all phases of projects, from concept selection through to operations.

TOMSEY provides a comprehensive range of Technical Safety services that support safe performance of a facility over its entire life cycle.

Our strength lies in the ability to manage and identify hazards at all stages of projects and propose preventative measures. The effectiveness of Technical Safety work is increased by working in an integrated manner with all the design disciplines promoting a two-way flow of information.



OUR KEY SERVICES

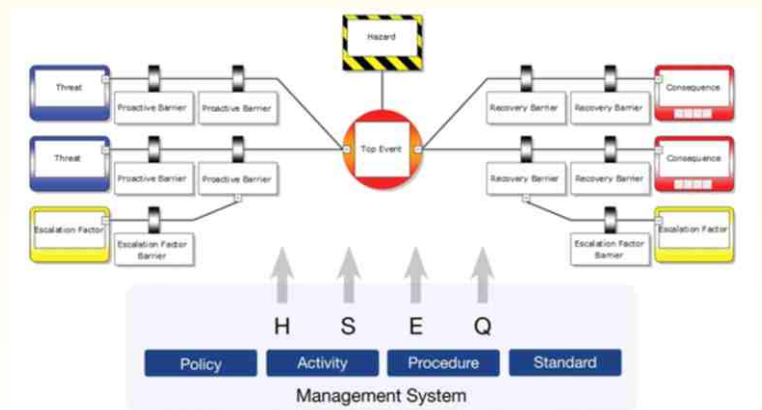
HAZOP & HAZID STUDIES

TOMSEY regularly provides Hazard Study Leads/ Facilitators and scribes to conduct HAZOP [Hazard & Operability] and HAZID [Hazard Identification] studies, as well as ALARP workshops. Our experts conduct these services at every stage of a project to ensure early identification of hazards.

QRA (QUANTITATIVE RISK ASSESSMENT)

TOMSEY provides a full QRA service including:

- Fault Tree Analysis
- Event Tree Analysis
- Process Failures- QRA
- Parts Count-QRA
- SIL QRA (see also SIS/ Functional Safety)
- FMEA/FMECA/ FMEDA
- BOWTIE Analysis
- Human Failure Analysis
- Individual Risk Contours
- Societal Risk Implications



SAFETY REPORT/ SAFETY CASE PREPARATION

TOMSEY has considerable experience in both assessing and producing safety cases/safety reports to comply with COMAH regulations, Pipeline Safety regulations and Offshore Safety Case Regulations.

FUNCTIONAL SAFETY: SAFETY INSTRUMENTED SYSTEMS (SIS)

TOMSEY provides a full SIS support service from SIL assessment through system design, installation, operation and continuing maintenance, inspection and testing. This work is in line with recognized industry standards BSEN/IEC 61508/61511, typical support areas include:

- **SIS Management/ SIS** Project Development Planning Validation
- **SIL Assessment:** (Techniques- LOPA, SIL QRA, Risk Graph, Risks Matrix)
- **Safety Requirements Specification**
- **Safety Integrity Limi (SIL)**
- **Design realization** – supported by FMEDA/FMECA where required
- **Determination of proof test requirements**
- **Independent design verification**
- **Functional Safety Assessments** (Stages 1-6 as required)

DESIGN SAFETY REVIEWS

TOMSEY conducts design safety reviews for projects in the early stages of design. A satisfactory design safety review gives confidence that the main hazards have been addressed or actions raised to address them at the next stage of design.

CONSEQUENCE ANALYSIS/FIRE AND EXPLOSION ANALYSIS (FEA)

Consequence analysis can link to QRA studies or be carried out as a standalone study. It is essential to determine the effects that a major accident may have on plant and people on-site and off-site. **TOMSEY** uses recognized consequence analysis tools such as DNV PHAST, SAFETI and company packages, such as BP's CIRRUS and Shell's FRED [Fire, Release, Explosion and Dispersion].

DSEAR

TOMSEY provides support for DSEAR [Dangerous Substances and explosive Atmospheres Regulations] studies. This include Risk Assessment, Elimination/Risk Reduction and Hazardous Area Classification (HAC)/ EX Equipment Selection

EMERGENCY RESPONSE SERVICES

TOMSEY provide supports to our clients in the development of on-site and off-site emergency response plans.

PROCESS SAFETY MANAGEMENT: EXISTING PLANT

TOMSEY support our clients to develop a framework for the implementation of a robust Process Safety Management (PSM) system. This can include identification of Key Risk Control Systems (KRCS) and development of a set of leading and lagging Process Safety Performance Indicators (PSPI's).

PROJECT PROCESS SAFETY MANAGEMENT

TOMSEY employs professionals with wide range experience in project process/ technical safety management for FEED to EPC stages of project development. For example, our common approach is to utilize a six stage hazard study approach to run concurrently with project progression as follows:

- a. Concept: Preliminary Hazard Studies
- b. FEED: HAZID/Coarse HAZOP, LOPA, QRA, DSEAR
- c. EPC: Final HAZOP, LOPA, DSEAR
- d. Commissioning: Verification of safety systems performance
- e. Handover and Operations: Further verification and overall validation of safety elements
- f. Continued Safe Operations: A hazard study is usually carried out after 6-12 months of process operation to ensure suitable performance of safety related elements has been achieved.

It should be noted that the studies mentioned here are only indicative and a more comprehensive list of studies are usually tailored to suit the project requirements of our clients.

SAFETY MANAGEMENT SYSTEMS (SMS)

We support our clients in setting up robust SMS either through overall company H&S Management (HSG 65) or more localized SMS at the plant level, e.g. Permit To Work Systems, Risk assessed procedures, Human Task Analysis, etc.

SAFETY AUDIT/INCIDENT INVESTIGATIONS

TOMSEY has a team of HSE specialists who are experienced conducting safety audits in major hazard process industries. We also have experience in carrying out major accident investigations leading to critical root cause analysis reports.

OBSOLESCENCE MANAGEMENT DEVELOPMENT STRATEGY

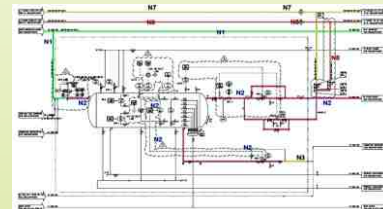
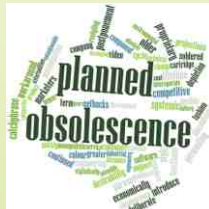
Obsolescence can present itself in two ways; the item in question is no longer suitable for current demands, or is no longer available from the original manufacturer. Obsolescence management ensures that plans are in place to identify and mitigate risk when parts, spares, equipment, skills (people), and software etc. become obsolete.

Obsolescence Management strategy takes into account the life span of all the moving pieces of your complex system with a plan to replace obsolete parts as they age, before it becomes a crisis.

Obsolescence is inevitable and affects all systems, especially operation equipment in all production facilities which are designed for a long product life, it is imperative therefore to plan for management of such facilities to ensure the equipment age 'gracefully'.

Our company is equipped to support our clients develop obsolescence management strategy to avoid surprises with obsolete equipment and parts that could lead to unsavory downtime of the whole facilities that could be very expensive in terms of lost revenue and waste of human resources due to the downtime. We do this in conformity with IEC 62402:2007 [Obsolescence Management - Application Guide]

Our strategy supports supply chain planning that ensure maxima return on investment for oil and gas facilities (brownfield and greenfield development), refineries, petrochemical plants, industrial plants and various production equipment and ensure sourcing for alternative parts for when such equipment.



OUR EXPERIENCE

Our company has been providing Technical Safety services for the oil and gas sector for the past fifteen years, facilitating various HAZOP, HAZID, BOWTIE, SIL, RISK ASSESSMENT, HSE CASES, SAFETY AUDIT, SIMOP etc. for companies such as Shell Petroleum Development Company, CHEVRON, NNPC, REFINERIES, OANDO, NAOC, PLATFORM Petroleum, SEPLAT, NEWCROSS Petroleum, PANOCEAN Oil Corporation, EROTON and a host of others who are major players in the oil and gas business in Nigeria. We have a great record of technical excellence that has made us the company of choice for all our clients.

Till date, we have facilitated technical safety workshops for over 120 projects in Nigeria for the oil and gas sector covering various stages of project implementation as well as post-operation risk management.



IOC CORPORATE ACCREDITATION

Our company is one of the few indigenous organizations accredited to facilitate Technical Safety Workshops for International Oil Companies (IOC) including:

1. SHELL PETROLEUM DEVELOPMENT COMPANY LIMITED
2. CHEVRON OIL
3. SEPLAT PETROLEUM
4. AGIP ENERGY [NAOC]
5. EROTON
6. MOBIL, etc



OUR TEAM'S CERTIFICATIONS

Our team of Engineers have qualifications ranging from Bachelor's degree up to Doctorate in various fields of Engineering including Chemical, Process, Electrical, Mechanical and Instrumentation and control. In addition to over 20 years' experience in the industry, they also have the following certifications.

- Post Graduate Diploma in Process Design
- TUV Functional Safety Engineers [TUV Germany]
- PHA TEAM LEAD CERTIFICATION
- NEBOSH International General Certificate
- Safety Auditors certification
- ISO 45001 CERTIFICATION [OCCUPATIONAL HEALTH]

SOFTWARE AVAILABLE FOR OUR STUDIES

We deploy various softwares to carry out the studies during workshops for our clients' projects. Some of the softwares include:

- MICROSOFT PROJECT
- BOWTIE XP
- PHAWORKS 5.0
- FRED SOFTWARE
- FLARENET
- MICROSOFT EXCEL



TOMSEY BUSINESS SERVICES IN NIGERIA

Other business services rendered by **TOMSEY** include:

- **Engineering Procurement and Construction**
- **Manpower and Technical Competence Development**
- **Maintenance Services**
- **Nigerian Sole Distributor of Critical Equipment, PPE and Special Hazard Protective Wears**
- **Operations Support Services**

TECHNICAL PROCUREMENT SERVICES

- Front line expeditor for Oil & Gas Equipment
- Expeditor for Power Generation and Distribution Equipment
- Package Cooling Equipment
- Spares for Critical Equipment
- Supplies of Major Industrial Equipment

FIRE SAFETY EQUIPMENT

- Fire Hydrant, landing valves & fire hoses
- Alarms
- Fire blankets and foams

CONSTRUCTION SERVICES:

- Civil and mechanical construction
- Mechanical Installations
- Electrical Installations
- Renovation and upgrading services
- Piping and Tanks construction
- Machining and Fabrication services

ENGINEERING AND MAINTENANCE SERVICES:

- Electrical, Mechanical and Civil maintenance
- Maintenance of Rotating and static equipment
- Renovation services
- Tank maintenance
- Tank cleaning and refurbishment

OPERATIONS SUPPORT SERVICES:

- Process and operational management
- Operational and maintenance training
- Operational manual development and deployment
- Fire and Gas protection services
- Manpower supply and Technical hiring
- Technical manpower development

TOMSEY

INTERNATIONAL SAFETY CONSULTANTS

Think S.A.M.



**Safety
Always Matters**

YOUR ONE STOP SAFETY SOLUTION PROVIDER

TOMSEY INTERNATIONAL CONSULTANTS Our Service Offerings

- HSE Procurement Services - including Personal Protective Equipment (PPE) and other HSE work equipment
- Safety Management services
- Capability Development in Health, Safety and Environment, through Training and International Certification

SPECIAL HAZARD WEARS

HSE PROCUREMENT SERVICES:

Tomsey is the sole representative of the following brands:



Portugese Leading Manufacturer
of Safety Shoes



A GREAT BRITISH BRAND



RESPIREX™
Leading in Breathing Personal Protection



Protecting People Everyday



CONTACT US →

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