

LĒNOS

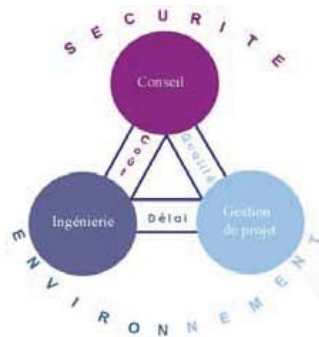
ENGINEERING



Certified to ISO 9001:2008

BROCHURE





LENOS Engineering has developed through the years a specific know-how in:

- Engineering and project management
- Industrial safety
- Environment protection
- Energy saving

Our strength relies on:

- Engineers with several years of experience in international environment
- A performing project management system
- Powerful tools and techniques



Certificat d'enregistrement



N° de certificat
4960-1

Date de certification initiale
22 janvier 2010

Date d'émission du certificat
22 janvier 2010

Date d'expiration du certificat
22 janvier 2014



Le système de management de la qualité de l'organisme suivant a été audité et enregistré par les Services d'essais Intertek AN Ltée et jugé conforme aux exigences de la norme

ISO 9001:2008

Organisme:
LENOS Engineering
N° 10, H 2, Parc Plaza 1 - Mohamma

Le système de management de la qualité s'applique aux activités suivantes :
Services d'étude et de conception dans les domaines suivants : Ingénierie & Gestion de projet, Sécurité Industrielle et Environnement.

Intertek n'assume aucune responsabilité envers les tiers par rapport à l'émission de ce certificat conformément aux clauses définies dans l'article de certification.

© 1997-2014 Intertek AN Ltée - www.intertek.com

Services d'essais Intertek AN Ltée - Lachine, QC, Canada

Our commitment

We have established a proven record of reliability in respect of time, cost, safety and quality. We aim for continuous improvements, providing 'best practice' management and engineering methods.

Services	
Engineering and Project Management	<ul style="list-style-type: none"> - Feasibility Studies - Preliminary Design and Basic Of Design Studies - Detailed Engineering - Construction planning and follow-up
Safety Engineering	<ul style="list-style-type: none"> - Safety and fire protection Engineering - Qualitative and quantitative Risk Assessment - Emergency planning (PIP, POI,...)
Environmental Engineering	<ul style="list-style-type: none"> - Environment protection engineering - Environmental impact studies - Environmental Site Assessments - Planning & Rehabilitation
Energy Saving	<ul style="list-style-type: none"> - Energy efficiency studies - Energy recovery and optimisation - Renewable energy implementation
Consultancy	

Sectors of activity	
Oil & Gas	<ul style="list-style-type: none"> - Refineries - LPG plants - Storage depots and blending plants
Chemical Industries	<ul style="list-style-type: none"> - Storage and handling - Transformation plants
Mining	<ul style="list-style-type: none"> - Production units - Transformation plants
Energy	<ul style="list-style-type: none"> - Conventional Energy - Renewables
Manufacturing	<ul style="list-style-type: none"> - Production and transformation plants - Handling and transportation
Buildings	<ul style="list-style-type: none"> - Hotels - Hospitals - Commercial buildings



SERVICES

Throughout the entire period of investment and operation, the support provided for customers is an important part of our offer.

- We assist our customers in their project, from feasibility studies up to the overall technical specifications. The project is clearly defined, to determine its Objectives / Time / Cost profile.

- Preliminary Design, basic design, detailed engineering, Call For Tender, Construction follow up, Commissioning, Assistance for operation and maintenance

- Project design work and execution: detailed operating procedures are determined (technologies, operating process, technical skills for the operating personnel, lot breakdowns for calls for tender, etc...)

DISCIPLINES

- Civil and infrastructures
- Structures
- Fluids
- Thermodynamics
- Process
- Piping and Pipelines
- Electrical
- Instrumentation
- Heating, cooling and refrigeration
- HVAC
- Fire protection
- ...

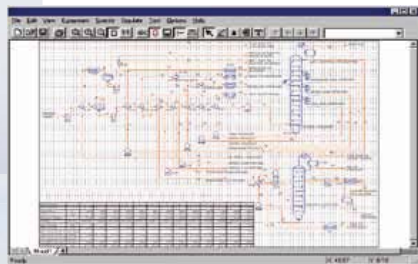
NORMS AND STANDARDS

Lenos Engineering applies the most recognized national and international norms and standards:

- ISO
- API
- AFNOR
- ASME
- ASTM
- NFPA
- BSI
- ...

TOOLS AND TECHNIQUES

LENOS Engineering uses the best design and calculation softwares



PROJECT MANAGEMENT

We manage projects, from feasibility studies to facility commissioning and start-up.

We promote design-to-cost solutions

Project execution planning:

- Development and implementation of procurement strategies to improve competitiveness
- Qualification and selection of contractors / suppliers.
- Call for tenders assistance
- Tender submissions technical review and analysis
- Contract preparation
- Project quality plan implementation
- Project HSE plan implementation

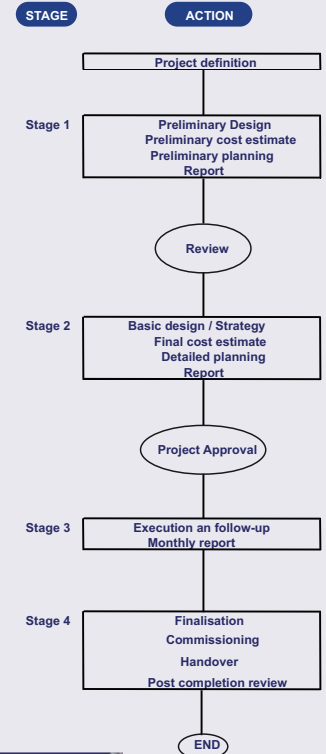
Site construction follow-up and work coordination:

- Construction planning, scheduling and schedule control
- Project cost control
- Site HSE Audits and reviews
- Construction quality control
- Interface coordination and management
- Commissioning, start-up and handover
- Finalization and close-out
- Post completion reviews

METHODOLOGY



PROCESS PROJECT MANAGEMENT
Doc. N°: LENOS/01/02



PROJECT SPECIFIC SERVICES

For project with critical impact on Health, Safety and Environment, **LENOS Engineering** provides the following specific services.

- Impact studies on Health, safety and environment.
- Qualitative and quantitative risk assessment.
- HAZOP studies
- Identification and classification of hazardous areas
- Fire, dispersion and explosion modelling and simulation
- Specific fire fighting systems engineering
- Specific fire and gas detection systems
- Emergency shut-down systems (ESD)
- Pre-incident planning
- Construction HSE management
- Site HSE Audits and reviews



OUR ADDED VALUE

Our engineers have several years of experience in international environment in the fields of oil and gas, chemical, power and mining (Refineries, LPG filling plants, Oil terminals, pipelines,...)



PARTNERSHIP

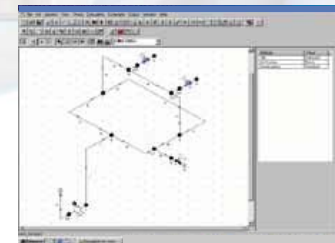
LENOS Engineering have partnerships with international experts in different industrial processes, geotechnics, topographic (SIG), cathodic protection. We are able to offer to our customers global solutions in engineering and project management.

SAFETY AND FIRE PROTECTION ENGINEERING

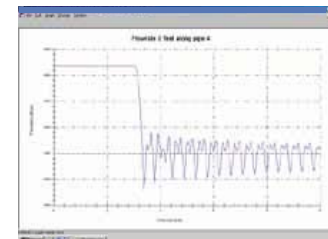
Site safety compliance, from site audit, to the implementation of fire prevention and protection solutions.

LENOS Engineering provides the following services:

- CONFORMITY AUDIT
- Deficiencies identification and Gap analysis, and
- ENGINEERING AND PROJECT MANAGEMENT
- Technical and economic evaluation of safety compliance solutions
- Study and design of:
 - + Foam and water fire protection systems
 - + Sprinkler systems
 - + Inert gas installations
 - + Gas and fire detection solutions
 - + ESD systems...



Fire protection network calculation



Dynamic simulation of a fire protection network

NORMS AND STANDARDS

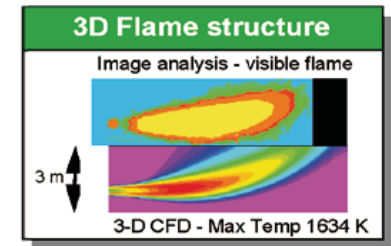
LENOS Engineering applies the most recognized international fire protection norms and standards :

- NFPA
- IP CODE
- API
- OHSAS 18001

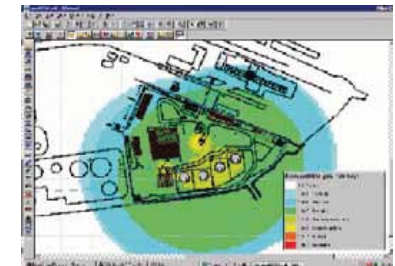


TOOLS AND TECHNIQUES

LENOS Engineering uses powerful tools and techniques in the fields of industrial safety.



Fire and explosion modeling and simulation



Risk contours assessment (BLEVE, JetFire...)



RISK MANAGEMENT

A full audit allows to:

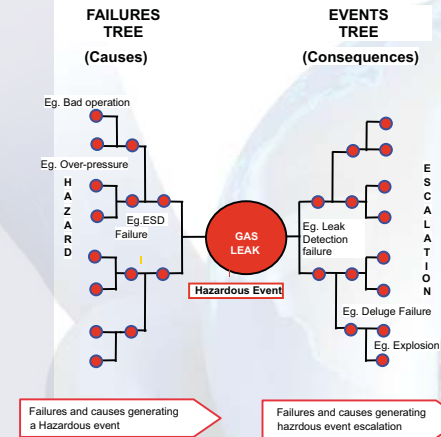
- Assess the facility conformity to fire standards and regulations.
- Assess potential risks of site activities
- Define action plans and improvement programs

LENOS Engineering offers Services in:

- Safety audits (Installations & Operations)
- Quantitative risk assessment studies (HAZID, HAZOP, QRA...)
- Fire, explosions and toxic gas dispersion modelling
- Emergency planning (PIP, POI)
- Regulatory conformance of facilities with high fire risk
- Development and implementation of fire protection strategies.
- Consultancy in risk management

ACCIDENTS INVESTIGATION

LENOS Engineering uses proven methods for incident/accident investigation (TRIPOD beta ...)



- Investigation findings are used as input to improve safety management systems
- Controls are put in place for activities and operations with significant accident impact on the business

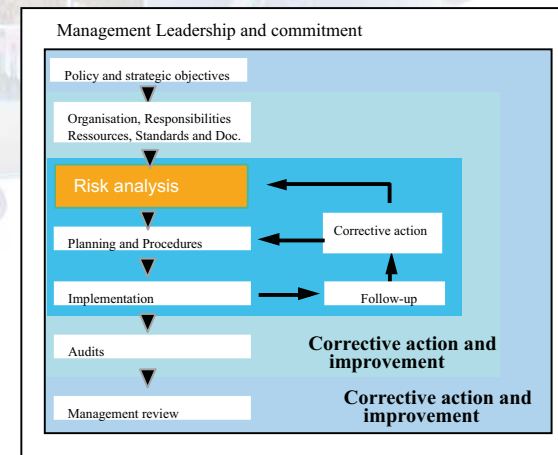
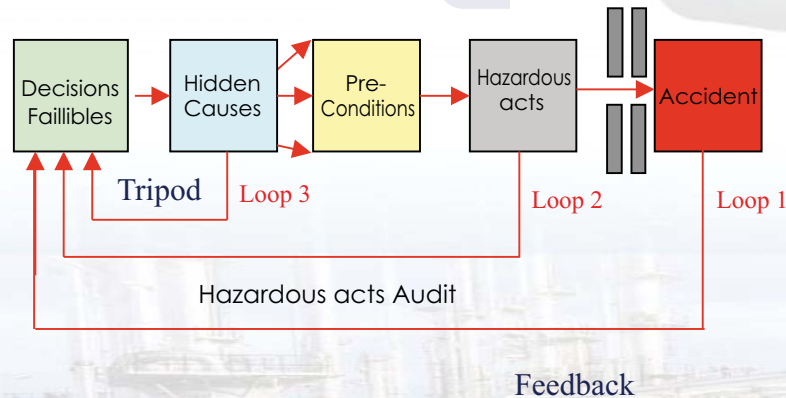
SAFETY MANAGEMENT

LENOS Engineering assists customers during all the phases of a safety management system implementation:

- Safety Policy and objectives review
- Organisation, resources and training
- Conduct of the risk analysis process
- Procedures planning and preparation
- Safety management manual preparation
- Audits
- Corrective action plans preparation and implementation



METHODOLOGY



TRAINING

We offer to our customers fit-for-purpose training programs:

- Risk analysis
- Post-accident investigation Methods
- Conduit of HAZOP
- Quantitative and qualitative risk Analysis
- Safety management
- Construction work safety
- ...



ENVIRONMENT PROTECTION ENGINEERING

LENOS Engineering provides the following services:

- CONFORMITY AUDITS

Deficiency and failure identification

- ENGINEERING STUDIES AND PROJECT MANAGEMENT

- Technical and financial assessment of conformance plans

- Design and implementation follow-up of:

- + Water treatment installations
- + Solid waste treatment installations
- + Filtration systems
- + clean up systems and techniques

SITE ASSESSMENT AND REHABILITATION

Complete solutions, from polluted site investigation and feasibility study to solutions implementation and execution on site.

LENOS Engineering provides the following services:

- PRELIMINARY SCREENING

Pollution identification

- SITE INVESTIGATION AND MONITORING

- Pollution localisation and environmental impact assessment (water and soil sampling)

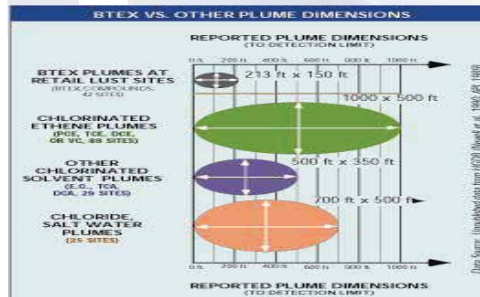
- On-site and laboratory analysis, geophysics...

- FEASIBILITY STUDIES

- Technology and techniques selection

- Cost estimate

- solutions implementation and execution on site



ENVIRONMENT MANAGEMENT

Environment management is a major part of the strategy of a company which has to prevent and anticipate regulatory evolutions, manage constraints and take advantage of opportunities

LENOS Engineering:

- Proposes strategies and preventive management programmes for environmental issues

- Defines and prepare environmental procedures and dashboard

- Assists its customers in their new projects and their rehabilitation projects

- Assists its customers in implementing an environment management system

CLEAN UP

For an efficient action against a pollution, it is important to have a deep knowledge of the extent of the pollution, of its consequences and of all remediation options. This also helps reducing significantly the total cost of remediation.

LENOS Engineering assists its customers in selecting the most optimal clean up solutions.

ENVIRONMENT IMPACT STUDIES

- Pre-implementation site environmental assessment

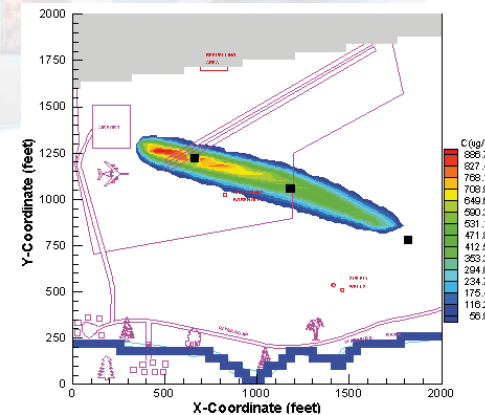
- New projects environmental impact assessment studies

- Preventive and correctives measures

- Risk based environmental assessment

- Air, water and Soil pollution studies

- Contaminants migration modelling (Air, water and Soil)



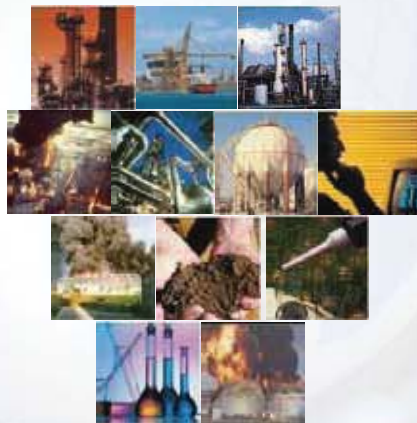
Soil pollution modelling





LĒNOS

ENGINEERING



CONTACT

Phone :+212 (0) 523 30 58 20

Fax : +212 (0) 523 31 90 60

E-mail : lenos@lenos.ma

Web : www.lenos.ma