

BASICS OF ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT (ESIA)

Designed For:

HSE specialists, environmental engineers, design engineers, project managers and senior project managers involved in conceptual design, Front-End Engineering (FEED) and Engineering, Procurement and Contracting (EPC) stages of project development and whom wish to understand the basics of an ESIA study and how it should provide added-value to the project development cycle.

You will Learn How To:

- Screen whether a project requires ESIA or not
- Scope the important issues to be considered in an ESIA
- Design an environmental baseline survey plan
- Design a public participation plan and the importance of stakeholders engagement Conduct impact identification and assessment
- Prepare an environmental and social management plan (ESMP)
- Review and ESIA report
- Follow-up the implementation of an ESMP

Course Contents:

- Analysis and overview of the numerous steps, key activities and decision-making process in ESIA
- Current ESIA practices and usage and weaknesses in existing EIA process and likely development
- Screening: is an ESIA needed?
- Designing a public participation plan for your ESIA study
- Scoping: identification of key issues
- Designing an environmental baseline survey plan
- Impact identification and assessment
- Mitigating impacts
- Preparation of effective environmental and social management plans
- Contents of an ESIA report
- Evaluating an ESIA report
- ESIA Post-auditing

The course is implemented through a series of lectures supported by group exercises, interactive sessions and case studies.

Preparation of Bankable ESIA Studies

Designed For:

HSE specialists, environmental engineers, design engineers, project managers and senior project managers involved in conceptual design, Front-End Engineering (FEED) and Engineering, Procurement and Contracting (EPC) stages of project development and seeking for project financing from international financing institutions.

You will Learn How To:

- The requirements of main financing institutions such as the International Financing Corporation (IFC) and the European Investment Bank (EIB)
- How to ensure the ESIA meets the requirements of international financing institutions
- How to apply basic principles in ESIA by selecting a project and performing all steps of an ESIA study

Course Contents:

- Requirements of International Financing Institutions (IFIs)
- Selection of a case study in the oil and gas sector to be used as a basis for the training
- Selecting an ESIA team; requirements and qualifications
- Use of different screening techniques to assess project requirements for ESIA
- Use of the EU scoping checklist to identify key issues of concern
- Analysis of project alternatives
- Development of an Environmental Baseline Survey plan
- Impact assessment techniques to evaluate the significance of identified impacts
- Identification of mitigation measures
- Development of the environmental and social management plan

Participants of this course must have attended the basics of EIA. Participants will be divided in groups; each group will select a project, which will be used as a basis for the implementation of the ESIA principles and techniques. At the end of the course, each group will have prepared an executive summary of an ESIA study for the selected project.

ESIA Case Studies in the Oil and Gas Sector

Designed For:

HSE specialists, environmental engineers, design engineers, project managers and senior project managers involved in conceptual design, Front-End Engineering (FEED) and Engineering, Procurement and Contracting (EPC) stages of project development.

You Will Learn:

- How ESIA studies have provided added-value to the design of oil and gas projects
- Typical pitfalls and shortcomings in ESIA studies
- How to apply ESIA principles in project design
- How the lack of public participation can lead to major problems in project implementation
- The importance of implementing local content principles in project implementation
- How to prepare an action plan to implement an environmental management plan

Course Contents:

- Case study for seismic survey projects
- Case study for a field development plan
- Case study for well drilling projects
- Case study for export pipeline projects
- Case study for gas processing projects
- Case study for refinery projects

Health, Safety and Environment (HSE) in the Oil and Gas Sector

Designed For:

All personnel of oil and gas companies that are involved in Health, Safety and Environmental planning and implementation.

You Will Learn:

- Key principles of environmental pollution monitoring and control in the oil and gas industry
- Principles of Job Hazard Analysis
- How to classify hazardous areas
- Principles of risk assessment and risk management
- How to prevent explosions
- Safety principles in drilling operations
- Principles of accident event investigation and reporting

Course Contents:

- Environment and Pollution Monitoring and Control in Oil and Gas Industry
- Environmental Management System, ISO 14000, Implementation and Control Auditing
- Waste Management / Waste Disposal: Sources and Treatment Methods
- Control of Oil and Gas Spills
- Accredited Health and Safety Auditing
- Awareness of Chemical Hazard
- Job Hazard Analysis
- Hazardous Area Classification
- Electrical Equipment in Hazardous Area / Lighting Protection System
- Risk Assessment and Risk Management
- Prevention of Explosions
- Standards in Tank and Pressure Vessels and their Accessories
- Non-destructive Testing: Techniques and Applications
- Safety in Laboratories
- Safety in Drilling Operations
- Accident Event Investigation and Reporting
- Provision of First Aid after an Accident

Environmental Baseline Studies and Environmental Sampling Techniques

Designed For:

Environmental engineers, environmental scientists, laboratory staff, field personnel and all those involved in the collection, analysis and use of environmental data.

You Will Learn:

- How to design an effective environmental monitoring plan
- Survey techniques for different environment attributes
- Environmental sampling techniques
- Principles of Quality Assurance and Quality Control
- How to assess data reliability
- How to use environmental data to assess the impacts of your activities and identify corrective measures
- The use of GIS in data management

Course Contents:

- Designing an environmental monitoring plan
- Monitoring climate and meteorological data
- Designing an air quality survey plan
- Designing a noise monitoring plan
- Sampling soil and groundwater
- Ecological surveys
- Socio-economic surveys
- Use of Geographic Information Systems in data management

Environmental Legislation

Designed For:

Project managers, senior project managers, heads of departments, environmental engineers and scientists who need to understand environmental legislation and requirements and their implications to project design and implementation.

You Will Learn:

- How comprehensive environmental legislation is
- What the relevant authorities are doing to implement and enforce this legislation
- The implications of such legislation to your projects
- How to integrate environmental legislation requirements in project design

Course Contents:

- International conventions and treaties
- Overview of environmental legislation
- Emissions and discharge standards and comparison with international standards
- Environmental Quality Standards and comparison with international standards
- Enforcement of environmental legislation
- Case studies in the oil and gas industry

Principles of Air Dispersion Modeling

Designed For:

Project engineers, project managers, senior project managers, environmental engineers and scientists, process engineers, mechanical engineers who need to understand how to estimate air emissions and the processes involved in their dispersion in the atmosphere.

You Will Learn:

- How to prepare an emissions inventory
- How to use an air dispersion software (AERMOD) to model dispersion of pollutants in the atmosphere
- How to interpret results from air dispersion models and assess significance of impacts
- How to use dispersion modeling in project design

Course Contents:

- Basics of air quality management
- Preparation of emissions inventory
- Types of air dispersion modeling tools and techniques
- Introduction to AERMOD
- Applying AERMOD to an oil and gas project
- Interpretation of modeling results
- Air dispersion modeling and project design

Principles of Noise Modelling

Designed For:

Project engineers, project managers, senior project managers, environmental engineers and scientists, process engineers, mechanical engineers who need to understand the impacts of noise emissions on the environment and how to assess and control noise sources.

You Will Learn:

- How to prepare a noise emissions inventory
- How to use an noise modeling software (SOUNDPLAN)
- How to interpret results from noise modelling and assess significance of impacts
- How to use noise modeling in project design

Course Contents:

- Basics of Acoustics Studies
- Preparation of noise emissions inventory
- Types of noise modeling tools and techniques
- Introduction to SOUNDPLAN
- Applying SOUNDPLAN to an oil and gas project
- Interpretation of modeling results
- Noise modeling and project design