

# **MINISTRY OF ENERGY AND ENERGY INDUSTRIES**

## **Environmental Chemist**

### **JOB SUMMARY**

Highly specialized and responsible professional and administrative work in environmental chemistry. An employee in this class is responsible for directing a programme of assessment, approval and monitoring with respect to usage of chemicals in the energy sector. Work also involves advising the policy, devising and determining research methods, supervising the development of data bases, participating in discussions and/or negotiations with companies and agencies in the energy and energy based industries. The incumbent is also expected to supervise a group of sub-professional, administrative and clerical personnel. Work is performed with a high degree of initiative and independent judgment and is subject to review through discussion, evaluation of reports and recommendations forwarded. The incumbent reports to the Senior Chemical Engineer.

### **DUTIES AND RESPONSIBILITIES**

- Acts as adviser to government on policy matters affecting the energy and energy-based industries in particular, with respect to the international environmental conventions as it relates to the management of chemicals in the energy sector, national and energy sector environmental policy, the national and industry oil spill plans, waste management policy, water pollution policy, air pollution policy, noise pollution policy, chemical management policy, compensation policy, as it relates to chemical usage.
- Assist in the technical and financial evaluation of environmental aspects of projects in the energy and energy-based industries, in particular Environmental Impact Assessments
- Assess technological developments in the energy and related industries with respect to environmental management
- Represent government on various committees and working groups as well as at relevant regional and international meetings and conferences
- Acts as adviser to government on policy matters affecting the energy and energy-based industries in particular, with respect to the international environmental conventions as it relates to the management of chemicals in the energy sector, national and energy sector environmental policy, the national and industry oil spill plans, waste management policy, water pollution policy, air pollution policy, noise pollution policy, chemical management policy, compensation policy, as it relates to chemical usage.
- Assist in the technical and financial evaluation of environmental aspects of projects in the energy and energy-based industries, in particular Environmental Impact Assessments

- Assess technological developments in the energy and related industries with respect to environmental management
- Represent government on various committees and working groups as well as at relevant regional and international meetings and conferences
- Assist in the administration of the energy and energy-related industries
- Monitor and advise Government on environmental trends in the international energy and energy-based industries.
- Assist in the technical and financial evaluation of projects in the energy and energy-based industries
- Seek to bring attention to the relevant authorities of the need to ratify important conventions and implement requirements of the conventions.
- Be able to assess laboratories conducting testing of chemicals & products relevant to petroleum and petrochemical companies.
- Attend meetings with governmental agencies and companies with respect to environmental matters, conventions, guidelines, standards with a view to improvement and implementation of same.
- Liaise with and provide technical guidance, trouble shooting of problems/discrepancies to laboratories and companies.
- Review and discuss laboratory test results trending and work with companies to achieve compliance through corrective and preventative actions.
- Develop a budget for sampling, testing of effluents, gasoline, diesel, crude oil, for revenue purposes.
- Conduct research and developmental studies to determine relevance and practicality of test methods.
- Develop proper record keeping of chemicals, oil spills, EIA reviews, meetings attended and outcomes.
- Suggest programs, workshops for training of laboratory personnel in the energy industry.
- Monitor/witness sampling of effluents, chemicals from petroleum and chemical companies.
- Develop round robin testing for labs for verification of laboratory tests.
- Organize meetings with laboratories with a view to improving testing methods, laboratory health and safety management.
- Meet with CARIRI, TTBS to set up requirements for petroleum testing laboratories utilized by the Ministry to become accredited.

## **MINIMUM EXPERIENCE AND TRAINING**

A Bachelor degree in the field of Chemistry.

At least a minimum of two (2) years' experience in Analytical Chemistry would be an asset.

## **KNOWLEDGE, SKILLS AND ABILITIES**

- Knowledge of the theory, principles and practices of Environmental Chemistry or Analytical Chemistry
- Knowledge and understanding of research techniques and of methods of statistical and economic analysis
- Knowledge and understanding of the techniques and methods of project development and evaluation
- Knowledge of the operations of the domestic and international energy and energy-based industries and of current developments in same
- Knowledge on testing methods related to EPA, TTBS & other standard operating procedures for a battery of chemical tests including: Oil & grease, Total petroleum Hydrocarbons, Acute Toxicity, Biodegradable, Total Suspended Solids, Total Dissolved Solids, and Dissolved Oxygen.
- Knowledge on international conventions, particularly those that Trinidad and Tobago are party to and have ratified.
- Knowledge of environmental guidelines, standards & regulations relevant to the petroleum & petrochemical industries
- Ability to analyse and evaluate problems objectively and to recommend appropriate action
- Ability to express ideas clearly and concisely and to prepare comprehensive reports on energy and energy-related matters with respect to the environment
- Ability to establish and maintain effective working relationships with other employees and the public