

# Job Description for Professional Posts

<b>Position and Grade:</b>	Junior Professional Officer (JPO) Analytical Chemist
<b>Organizational Unit:</b>	Marine Environmental Studies Laboratory IAEA Environment Laboratories (NAEL), Monaco Department of Nuclear Sciences and Applications
<b>Duty Station:</b>	Monaco
<b>Type/Duration of Appointment:</b>	Junior Professional Officer / 2 years

## Organizational Setting

The IAEA Environment Laboratories (NAEL) is a Division of the Department of Nuclear Sciences and Applications comprising four laboratories, of which three are located in Monaco and one in Seibersdorf (about 45 km south of Vienna). NAEL implements the Environment Program under Major Program 2; the part relevant to marine ecosystems is implemented in Monaco, that relevant to terrestrial ecosystems is implemented in Seibersdorf. The Division operates in a complex environment, receiving inputs from many parts of the organization, including the Department of Technical Cooperation for the implementation of several projects and other Departments for horizontal collaboration. The Director's office is located in Monaco.

The Marine Environmental Studies Laboratory (MESL) is one of three laboratories in Monaco. It is staffed by two professional and four technical support staff. Working with various UN and regional organizations throughout the world, MESL provides technical support for the monitoring and assessment of marine pollution. Research focuses on case studies of inorganic and organic contaminants in the marine coastal zone. MESL supports marine analytical chemistry by producing marine certified reference materials, organizing global inter-comparison exercises, and running training courses for the analysis of pollutants in the marine environment.

## Main Purpose

Reporting to the Unit Head and Professional staff Junior Professional Officer (JPO) conducts laboratory tests related to on-going research and development work on mercury and methyl-mercury analysis in marine samples. The JPO will contribute to the development, optimisation and application of analytical methods for mercury analysis and speciation studies, in view of assisting Members States laboratories implementing marine monitoring programmes in the framework of the Global "Minamata Mercury Convention". The JPO will be

further involved in the procurement for and maintenance of laboratory equipment, supporting overall operations and participated in the training of fellows.

## Role

The Analytical Chemist is a *technical specialist* carrying out complex chemical procedures, improving existing procedures, and modifying or devising procedures for new applications; responsible for overseeing some laboratory activities in the area of mercury analysis, as well as a *supervisor*, responsible for training of fellows and trainees; and a *scientist* taking part in the establishment of a quality management system for the Mercury laboratory. **Relationships**

## Working Relationships

The Junior Professional Officer (JPO) has frequent contact with Professionals and General Service staff within the section as well as throughout the other sections for day-to-day operations including on-going experimental work. He/she also has consistent contact with fellows and associates in organizing their research work, in relation to mercury and trace element analysis, administering training material, and providing technical assistance as required. The JPO has external contact with local suppliers in attaining equipment/material for the laboratory and interacts with laboratories around the world to support them in enhancing the implementation of mercury analysis in Member States Laboratories. He/She will also collaborate with the Technical Cooperation (TC) Department of the IAEA TC Programme on this topic.

## Functions / Key Results Expected

- Carry out sample preparation and analysis for mercury and methyl mercury in marine environmental samples as requested in the regular programme and extra budgetary projects of MESL.
- Testing and application of analytical methods for analysis of mercury and organo-mercury compounds in marine environmental samples.
- Preparation of inter-laboratory comparison test samples including homogeneity and stability testing for mercury and methyl mercury.
- Training of Fellows and other trainees in MESL on the determination of mercury and methyl mercury in marine environment samples.
- Drafting and revising of standard operating procedures (SOPs), reports and guidelines and collaborate in the establishment and maintenance of the laboratory's quality system.

## Knowledge, Skills and Abilities

- Good practical knowledge of analytical techniques for mercury and methyl mercury determination in environmental samples.
- Working knowledge of ISO 17025 standard and Good Laboratory Practice.
- Basic knowledge on statistics.
- Ability to work in a multi-cultural setting, with sensitivity and respect for diversity.
- Ability to carry out assigned tasks in a timely manner under minimal supervision.
- Ability to document performed experiments and to prepare reports

- Good planning and organizing skills with the ability to be flexible and to work independently
- Interpersonal skills. Demonstrated ability to work in a team environment with scientific, technical and administrative staff and to maintain collaborative partnerships across organizational boundaries

#### Education, Experience and Language Skills

- University degree in chemistry, environmental sciences or a related scientific field with a demonstrated strong laboratory component in the field of mercury and methyl mercury analysis.
- Minimum of two years of relevant professional experience in the field of analytical chemistry
- Publications in this field would be of advantage.
- Fluency in written and spoken English, with proven ability to write and edit reports as well as to make oral presentations. Working knowledge of French desirable. Knowledge of another IAEA official language (Arabic, Chinese, Russian or Spanish) an advantage.

Internal Human Resources use only:	
Effective Date:	
Occupational Group(s):	
Post Number:	