

Job Description for Professional Posts

Reference: NA2024/51

Position and Grade:	Associate Food and Agriculture Radioactivity Control Officer, P2
Organizational Unit:	Soil and Water Management and Crop Nutrition Laboratory Soil and Water Management and Crop Nutrition Section Joint FAO/IAEA Centre of Nuclear Techniques in Food and Agriculture
Duty Station:	Seibersdorf
Type/Duration of Appointment:	FT – JPO, 1 year

Organizational Setting

The Department of Nuclear Sciences and Applications implements the IAEA's Major Programme 2, "Nuclear Techniques for Development and Environmental Protection". This Major Programme comprises individual programmes on food and agriculture, human health, water resources, environment and radiation technologies. These programmes are supported by laboratories in Seibersdorf, Monaco and Vienna. The Major Programme's objective is to enhance the capacity of Member States to meet basic human needs and to assess and manage the marine and terrestrial environments through the use of nuclear and isotopic techniques in sustainable development programmes.

The Joint FAO/IAEA Centre of Nuclear Techniques in Food and Agriculture assists Member States of the Food and Agriculture Organization of the United Nations (FAO) and the IAEA in using nuclear techniques and related technologies to improve food security, alleviate poverty and promote sustainable agriculture. The Joint Centre consists of five Sections, each with an associated laboratory (located in Seibersdorf, 45 km south-east of Vienna), in the areas of: animal production and health; plant breeding and genetics; insect pest control; soil and water management and crop nutrition; and food and environmental protection.

The Soil and Water Management and Crop Nutrition Section and Laboratory assist Member States in developing improved soil and water management practices for sustainable intensification of agricultural production systems, the conservation of natural resources and the effective use of external inputs through applied and adaptive research and development activities, technology transfer and capacity building

Main Purpose

The Associate Food and Agriculture Radioactivity Control Officer is responsible for assisting in the development of research protocols in the field of control of radionuclides in food and agriculture for enhancing nuclear emergency response practices, through (i) developing strategies for improved radioactivity level prediction at crop harvest; and (ii) assisting in the development of methodologies for sampling and radioactivity analysis protocols for different specific categories of crops.

Role

The Associate Food and Agriculture Radioactivity Control Officer will assist in the development of methodologies to monitor and predict more accurately radioactivity levels in crops at harvest, as a result of nuclear emergencies, and in the analysis of experimental data and results for protocol development and publication; he/she is also a technical and scientific writer.

Partnerships

The Associate Food and Agriculture Radioactivity Control Officer reports to the Soil and Water Management & Crop Nutrition Laboratory Head and will work closely with staff members of the Soil and Water Management & Crop Nutrition Laboratory and Section. He/She will also be involved in Soil and Water Management & Crop Nutrition Section coordinated research activities relating to nuclear emergency response in food and agriculture.

Functions / Key Results Expected

Under the general guidance of the Head of the Soil and Water Management & Crop Nutrition Laboratory and the Head of the Soil and Water Management & Crop Nutrition Section of the Joint FAO/IAEA Centre located at Headquarters:

- Develop research protocols for improved radioactivity level prediction at crop harvest based on radioactivity contamination at initial crop stages (for wheat as test crop);
- Support the development of sampling and radioactivity analysis protocols for different specific categories of crops (cereals, tuber crops, vegetables and fruit);
- Contribute to publications and reports documenting R&D findings in the analysis and prediction of radionuclides in crops in the aftermath of a nuclear emergency.

Competencies and Expertise

Core Competencies		
Competence	Occupational Role	Behavioural Indicator
Communication	Individual Contributor	Communicates orally and in writing in a clear, concise and impartial manner. Takes time to listen and understand the perspective of others and proposes solutions.
Achieving Results	Individual Contributor	Takes initiative in defining realistic outputs and clarifying roles, responsibilities and expected results in the context of the Department/Centre's programme. Evaluates his/her results realistically, drawing conclusions from lessons learned.
Teamwork	Individual Contributor	Actively contributes to achieving team results. Supports team decisions.
Planning and Organizing	Individual Contributor	Plans and organizes his/her own work in support of achieving the team or Section's priorities. Takes into account potential changes and proposes contingency plans.

RESTRICTED

Functional Competencies		
Competence	Occupational Role	Behavioural Indicator
Analytical thinking	Associate	Gathers and analyses information, identifying critical relationships and patterns among data and proposes workable solutions.
Commitment to continuous process improvement	Associate	Identifies opportunities for process, system and structural improvement as well as improving current practices, increasing effectiveness and achieving efficiency gains. Actively supports the application of sound quality management standards and process improvement.
Technical/ Scientific credibility	Associate	Acquires and applies new skills to remain up to date in his/her area of expertise. Reliably applies knowledge of basic technical/ scientific methods and concepts.
Judgement/ decision making	Associate	Consults with supervisor/manager and makes decisions in full compliance with the Agency's regulations and rules.

Expertise	
Expertise	Description
Application of Isotopes and Radiation in Food and Agriculture and Environment	Strong understanding of the drivers of contaminant dynamics in agro-ecosystems, in particular radionuclide dynamics.
Analytical Methods in Geochemistry	Practical expertise in the use of geochemistry or radio-analytical techniques for determining contaminants, in particular radionuclides in soil and crops.

Education, Experience and Language Skills

- University degree in agronomy, soil science, biology or environmental sciences with a major emphasis on environmental chemistry or radio-ecology.
- Minimum of two years of proven laboratory experience in contaminant or radionuclide analysis, preferably in the field of radionuclide soil – crop transfer studies or related environmental sciences
- Experience in the use of radio-ecology techniques for tracing radionuclides in agro-ecosystems is an asset.
- Excellent oral and written command of English. Knowledge of other official IAEA languages (Arabic, Chinese, French, Russian and Spanish) is an asset.

RESTRICTED