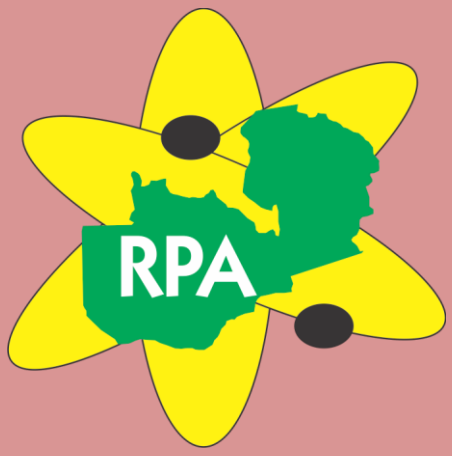
Radiation Protection Authority



Zambia

SAFETY GUIDE

RPA SG 7

Recognition of Service Providers

2015

NOTICE OF APPROVAL

The Radiation Protection Authority Board (RPAB), has on the (day/month/2015), approved the safety guide on Recognition of Service Providers. This guide is approved for the purposes of providing practical guidance with respect to the Ionising Radiation Protection Act, No. 16 of 2005.

Dr. Esther Munalula Nkandu

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CHAIRPERSON

Radiation Protection Authority Board

Mr. Boster Dearson Siwila

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EXECUTIVE DIRECTOR

Radiation Protection Authority

FOREWORD

Over the last 50 years, the use of Ionising Radiation in Zambia has significantly increased.
Institutions using Ionising Radiation include those in Health, Manufacturing, Mining, Agriculture, Research and Training sectors.

As activities of Ionising Radiation increase in Zambia, many service providers dealing with radioactive sources/devices will be involved and therefore there recognition will be required by the RPA.

In 2005, the Zambian Government enacted the Ionising Radiation Protection Act to provide for the protection of the public, workers and the environment from the harmful effects arising from the use of devices or materials that produce ionising radiation. The Ionising Radiation Protection Act allowed for the establishment of the Radiation Protection Authority to spearhead the implementation of provisions of the Act. To fully implement the Act the Zambian Government has priotised strengthening national regulatory capacity.
Strengthening national regulatory capacity includes among other equally important elements, the development and implementation of Safety Guides for Practices using ionizing radiation.

RPA developed this guide on recognition of service providers to better the performance of its functions while ensuring coordination of activities in order to formulate a cost effective regulatory programme, which will achieve safety goals in a manner compatible with national resources and needs. This guide gives the general and specific requirements for persons and companies seeking to provide services in Radiation Protection.

It is my sincere hope that this guide will be a good basis for attaining sustainable radiation protection of the public, workers and the environment and compliance by Licensees with the provisions of the Law.

Hon Dr. Joseph Kasonde, MP

MINISTER OF HEALTH

LIST OF ACRONMYS

RPAB Radiation Protection Authority Board

RPA Radiation Protection Authority

PACRA Patents and Companies Registration Agency

EPR Emergency Preparedness and Response

PPE Personal Protective Equipment

EIZ Engineering Institute of Zambia

IAEA International Atomic Energy Agency

TABLE OF CONTENT

1.0 INTRODUCTION

1.1 General

This safety guide is on the recognition of radiation protection service providers by RPA. The service providers require recognition by RPA so that the services are standardised and regulated in order to ensure protection of the members of the public, workers and the environment from harmful effects of ionising radiation.

1.2 Objective

The objective of this guide is to enable RPA to recognise service providers who meet National and International safety standards in their service delivery.

1.3 Technical and Consultancy Services

RPA classifies the services into Technical Services and Consultancy Services.

1.3.1 Technical services

These are services which involve the peaceful application of nuclear science and technology and may include the following:

1.3.1.1 monitoring of personnel dosimetry;

1.3.1.2 calibration;

1.3.1.3 installation, repair, and servicing of radiation devices;

1.3.1.4 manufacturing and supply of radiation sources; and

1.3.1.5 decommissioning.

1.3.2 Consultancy Services

This is where experts in the radiation protection field provide specialist expert service to organizations/ individuals who are involved in the peaceful

application of nuclear science and technology. These may include the following:

1.3.2.1 Training

1.3.2.2 Radiation Protection Services

1.3.2.3 Provision of management services

2.0 REQUIREMENTS FOR RECOGNITION OF TECHNICAL SERVICE PROVIDERS

The following shall be the minimum requirements of an organization/individual requiring recognition as Technical Service Provider by RPA:

2.1 General requirements

2.1.2 Registration with the Patents and Companies Registration Agency (PACRA);

2.1.3 Profile giving details of the activities and experience including CVs and radiation protection experience of the technical personnel working in such organizations;

2.1.4 Provision of relevant copies of certificates in radiation protection related field;

2.1.5 Adequate laboratory space where applicable;

2.1.6 Availability of Emergency Preparedness and Response (EPR) plans; and

2.1.7 Must have adequate Personal Protective Equipment (PPE).

2.2 Personnel Dosimetry services

2.2.1 The dosimetry laboratory should be accredited to a Secondary Standard Dosimetry Laboratory (SSDL). Operators should be qualified users of the dosimetry equipment

2.3 Calibration services

2.3.1 Availability of standard calibration equipment;

2.3.2 Qualified scientists/engineers to undertake calibration; and

2.3.3 Traceability of the calibration equipment.

2.4 Installation, repair and service of a radiation device

2.4.1 Qualified personnel to undertake the services

2.4.2 Recognition by professional bodies e.g. Engineering Institute of Zambia (EIZ).

2.5 Manufacturing and Supply of radiation sources

2.5.1 Registration with national and/or international tender boards

2.5.2 Compliance with IAEA packaging and transport regulations.

2.5.3 Availability of contractual agreements that sources would be returned to the manufacturer after its useful life.

2.5.4 Knowledge and evidence of instruction to clients about the maintenance and services of the equipment.

2.6 Decommissioning

2.6.1 Ability to decommission Radiation emitting devices and sources as prescribed by the RPA.

3.0 REQUIREMENTS FOR RECOGNITION OF CONSULTANCY SERVICE PROVIDERS

The following shall be the minimum requirements of organizations requiring recognition as consultants in the Radiation Protection Field:

3.1 Radiation Protection Consultancy

3.1.1 CVs and radiation protection experience of the technical personnel working in the organization;

3.1.2 Relevant copies of certificates in radiation protection related field;

3.1.3 Full details of the scope of the activities they wish to undertake;

3.1.4 Calibrated equipment that complies with national and international standards with copies of calibration reports/certificates; and

3.1.5 Provision of a radiation protection monitoring plan.

3.2 Training Services

3.2.1 Training curriculum;

3.2.2 Mode of training e.g. theoretical, practical, part-time, full-time, correspondence, on-line;

3.2.3 The training schedule (including the length of the training) and lesson plans (including details of learning and modules);

3.2.4 Availability of training materials and resources;

3.2.5 Academic qualifications and years of experience of the trainers in the field of Radiation Protection; and

3.2.6 The means and criteria of assessment of the participants' competence.

DEFINITIONS

Activities: includes the production, use, import and export of radiation sources for industrial, research and medical purposes; the transport of radioactive material; the decommissioning of facilities; radioactive waste management activities such as the discharge of effluents; and some aspects of the remediation of sites affected by residues from past activities. **Calibration:** A measurement of, or adjustment to, an instrument, component or system to ensure that its accuracy or response is acceptable.

Commissioning: the process by which an equipment or facility is completed and is tested to verify if it functions according to the design objectives or specifications.

Competence: the ability of an individual to do a job properly. It is a set of defined behaviours that provide a structured guide enabling the identification, evaluation and development of the behaviours in the individual employees.

Consultant: An individual who, by virtue of certification by appropriate boards or societies, professional licenses or academic qualifications and experience, is duly recognized as having expertise in a relevant field of specialization, e.g. medical physics, radiation protection, occupational health, fire safety, quality management or any relevant engineering or safety specialty.

Decommissioning: The process of removal or excluding a radioactive source or device from regulatory control.

Facilities: nuclear facilities; irradiation installations; some mining and raw material processing facilities such as uranium mines; radioactive waste management facilities; and any other places where radioactive material is produced, processed, used, handled, stored or disposed of — or where radiation generators are installed — on such a scale that consideration of protection and safety is required.

Practice: any human activity that introduces additional sources of exposure or additional exposure pathways, or modifies the network of exposure pathways from existing sources, so as to increase the exposure or the likelihood of exposure of people or the number of people exposed.

Recognition: The process by which a service provider is given formal acknowledgement of being a provider of a service relating to radiation protection by the RPA.

Service Providers: Any individual or persons or company that is providing an intangible commodity to the Licensee or holder of the ionising radiation licence.

ANNEX: CHECKLIST

RECOGNITION OF SERVICE PROVIDERS CHECKLIST

A. Technical Services

General requirements

☐PACRA registration

☐Company profile and staff profile

☐Any certificate in Radiation Protection

☐Laboratory space (where applicable)

☐EPR plan

☐Personal Protective equipment

(I) Personal Dosimetry Services

☐Dosimetry laboratory in place and accredited to SSDL

☐Qualified operators of the dosimetry equipment

(II) Calibration Services

☐ Standardisation calibration equipment in place

☐ Qualified staff to undertake calibration

☐ Traceability of calibration equipment

(III) Installation repair and service of radiation source

☐ Qualified staff to install, repair and service radiation source available

☐ Staff recognised by professional body

(IV) Manufacturing and supplying of radiation sources

☐ Registered with national / international tender board

☐ Compliance with IAEA package and transport regulations

☐ Contractual agreement regarding sources after its used life

☐ Equipment maintenance and service information to the client

(V) Decommissioning

☐ Availability of RPA decommissioning presumption

B. CONSULTANCY SERVICE PROVIDERS

(I) Radiation Protection Consultancy

- ☐ Qualified technical Staff
- ☐ In any radiation protection related field
- ☐ Scope of work
- ☐ Relevant equipment
- ☐ Availability of radiation monitoring plan

(II) Training services

- ☐ Training syllabus available
- ☐ Mode of training: theory / Practical / Part time /full time / correspondence
- ☐ Training schedule: Length, Lesson plans, modules
- ☐ Training materials and resources available
- ☐ Qualified trainers
- ☐ Criteria or assessing participants' competency