



Radiation Protection Authority of Zimbabwe

"...Protecting people and the environment against radiation effects..."

RADIATION SAFETY TRAINING CALENDAR FOR THE YEAR 2022

Subject to Covid-19 Guidelines in the case of face-to-face programs!

TRAINING PROGRAM	TARGET GROUP OR PARTICIPANTS	DATES AND VENUE
RADIATION SAFETY OFFICER'S TRAINING PROGRAMS		
Basic Radiation Safety Training Course for Radiation Safety Officers (RSO Training)	<ul style="list-style-type: none"> • Radiation Safety Officers (Mandatory) • Operators and workers within facilities with radiation devices • Safety and Health Practitioners 	29 March – 1 April 2022 Mutare
Advance Radiation Safety Training for Radiation Safety Officers <i>Session 1 of 3</i>	<ul style="list-style-type: none"> • Radiation Safety Officers • Accredited Service Providers • Key safety and health practitioners within organizations and service providers 	20-22 April 2022 Kwekwe
Advanced Radiation Safety Training for Radiation Safety Officers <i>Session 2 of 3</i>	<ul style="list-style-type: none"> • Radiation Safety Officers • Accredited Service Providers • Key safety and health practitioners within organizations and service providers 	July 2022 Bulawayo/Hwange
Basic Radiation Safety Training for Radiation Safety Officers (RSO): <i>Refresher Course</i>	<ul style="list-style-type: none"> • Radiation Safety Officers • Key safety and health practitioners within organizations 	August 2022 Kariba
Basic Radiation Safety Training Course for Radiation Safety Officers (RSO Training)	<ul style="list-style-type: none"> • Radiation Safety Officers (Mandatory) • Operators and workers within facilities with radiation devices • Safety and Health Practitioners 	October 2022 Gweru
Advanced Radiation Safety Training for Radiation Safety Officers	<ul style="list-style-type: none"> • Radiation Safety Officers • Accredited Service Providers • Key safety and health practitioners within 	October 2022 Harare & Virtual

<i>Session 3 of 3</i>	organizations and service providers	
PERSONAL AND WORKPLACE MONITORING (DOSIMETRY)		
Training Course on Personal and workplace Monitoring (Dosimetry)	<ul style="list-style-type: none"> • Radiation Safety Officers (Mandatory) • Operators and workers within facilities with radiation devices 	4-5 April 2022 Harare
Training Course on Personal and workplace Monitoring (Dosimetry)	<ul style="list-style-type: none"> • Radiation Safety Officers • Operators and workers within facilities with radiation devices 	October 2022 Gweru
NATURALLY OCCURRING RADIOACTIVE MATERIALS (NORM) SAFETY OFFICERS		
Training Course on Naturally Occurring Radioactive Materials (NORM) Management for NORM Safety Officers	<ul style="list-style-type: none"> • NORM Safety Officers • SHEQ Practitioners 	May 2022 Kwekwe
ACCREDITED SERVICE PROVIDERS		
Radiation Protection Training for Accredited Service Providers	<ul style="list-style-type: none"> • Instrument and Maintenance Technicians • Engineers Biomedical Engineers • Equipment Technicians 	August 2022 Harare and Virtual
RADIOLOGICAL ENVIRONMENTAL IMPACT ASSESSMENTS (REIA)		
Training Workshop on Radiological Environmental Impact Assessments (REIA)	<ul style="list-style-type: none"> • Environmental Impact Assessment (EIA) Consultants and Environmental Practitioners • Government Agencies and Departments 	3 February 2022 Virtual
MANAGEMENT OF RADIOACTIVITY IN WATER		
Training Workshop on the Management of Radioactivity in Waste-Water Treatment and Water Purification	<ul style="list-style-type: none"> • Urban Council • Rural District Councils • Government Agencies and Departments 	April 2022 Northern Region
National Seminar on the Management of Radioactivity in Water Quality	<ul style="list-style-type: none"> • Manufactures • Government Agencies and Departments • WASH Practitioners • Personnel responsible for Water Quality Monitoring 	September 2022 Harare
Radiation Safety Conference	<ul style="list-style-type: none"> • Licensees, Stakeholders, Exhibitors, and Technical Support Organizations 	November 2022

The Authority also offers facility-based awareness training, safety talks, tailor-made RSO and NORM Safety Officers training and other services such as leak tests and workplace monitoring.

Booking: To book this training workshop, or for more information, contact us on;

Head Office

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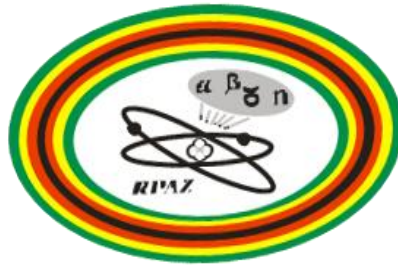


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Reference Materials.

- Radiation Protection Act [Chapter 15:15]
 - Radiation Protection (Naturally Occurring Radioactive Materials) NORM Regulations, 2013 (Statutory Instrument 99 of 2013).
 - Radiation Protection (Safety and Security of Radiation Sources) Regulations, 2011 (Statutory Instrument 62 of 2011).
 - Radiation Protection (Medical Practices) Regulations, 2014 (Statutory Instrument 91 of 2014).
 - IAEA Technical Report Series
 - International Commission on Radiological Protection (ICRP) reports 60, 65, 68, 72 and 77
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RADIATION SAFETY TRAINING PROGRAMS

Subject to Covid-19 Guidelines and Requirements in the case of face-to-face training

The Radiation Protection Authority (RPAZ) offers basic and specialized training courses and workshops on a wide range of radiation safety subjects suitable for different categories or practices using radiation. RPAZ ensures that these programs address the relevant regulatory provisions and expectations to assist licence holders comply with regulatory requirements

As we celebrate over a decade in the regulation of ionising radiation, we strive to develop a more effective approach to training in radiation safety as well as compliance promotion activities.

Training Programs

- Basic Radiation Safety Training Course for Radiation Safety Officers (RSO Training)
- Advance Radiation Safety Training for Radiation Safety Officers
- Training Course on Personal and workplace Monitoring (Dosimetry)
- Training Course on Naturally Occurring Radioactive Materials (NORM) Management for NORM Safety Officers
- Radiation Protection Training for Accredited Service Providers
- Training Workshop on Radiological Environmental Impact Assessments (REIA)
- Training Workshop on the Management of Radioactivity in Waste-Water Treatment and Water Purification
- Specialised and facility-based radiation safety training

"...Celebrating a Decade of Radiation Safety and Security..."



CERTIFIED RADIATION SAFETY OFFICERS (RSO) TRAINING ON BASIC RADIATION SAFETY

The course capacitates radiation safety officers with a responsibility of managing radiation safety and security at facilities that possess and use radiation sources/devices. This is in compliance with Statutory Instrument 62 of 2011 and the Radiation Protection Act [Chapter 15:15] that require facilities to appoint a radiation safety officer (RSO) and ensure the RSO is adequately trained on basic radiation safety.

A Radiation Safety Officer (RSO) means a person technically competent in radiation protection and safety for a given type of practice designated by a registrant or licensee to oversee the application of provisions and requirements of the Act and regulations. To be a certified RSO, participants must complete a 4-day training program and pass final exam. This allows them to be competent to undertake RSO responsibilities as outlined in Section 16 of the Act and be knowledgeable on regulatory requirements and radiation safety matters, and also be able to develop and implement a quality radiation protection program specific to their type of practice.

Training Course Details

Target Audience	Radiation Safety Officers (RSOs) <i>(Regulatory Requirement)</i> Other professionals with a responsibility for radiation safety and security for Diagnostic Radiology, Radiotherapy and Nuclear Medicine, Industrial Nuclear Gauging, Industrial X-Ray Generators (Quality control and Security) practices.	
Workshop Content	Review of Radiation Fundamentals	Radiation quantities and Measurements
	Applications of Radiation & Principles of Radiation Protection	Biological effects of Ionising Radiation
	Responsibility of the RSO	Notification and Authorisation Requirements
	Inspection and Enforcement	Operational Protection against Radiation
	Transport of Radioactive Materials	Management of Radioactive Waste
	Security of Radioactive Sources	Nuclear and Radiological Emergencies
	Individual and Workplace Monitoring	Radiation Protection Programs
	Group Discussions Practical Session on Inspection of Sources	Evaluation

"...Celebrating a Decade of Radiation Safety and Security..."





Certified Advanced Radiation Safety Training for Radiation Safety Officer's

The objective of this course is to provide hands-on experience in the use of a formalized framework through which continuous radiation protection program improvement can become institutionalized. This ensures industry has specific persons who can carry out internal inspection, workplace monitoring and management of radiation devices in line with the Radiation Protection (Safety and Security of Radiation Sources Regulations, 2011 (Statutory Instrument 62 of 2011) and Section 16 of the Radiation Protection Act [Chapter 15:15]

An Advanced Radiation Safety Officer is an individual who through appropriate training and experience is authorized to undertake internal inspection of radiation sources and to supervise such use by others. Certification is obtained by completing three training sessions with modules highlighted below and passing all the modules and session exams.

Requirements	Industrial Nuclear Gauging, Industrial X-Ray Generators (Quality control and Security) Persons previously trained on Basic Radiation Safety for Radiation Safety Officers Operators and workers within facilities with radiation devices who have the competency to receive the training
Content: Session 1 (3 Days)	Authorisation and Inspection Requirements and Responsibility of the RSO
	Radiation Protection Program Development and Implementation
	Radiation Instruments and Measurements
	Personal Monitoring and Workplace Monitoring
	Practical: Inspection/Audit of Nuclear Gauging and Industrial X-Ray Devices (Safety and Security)
	Inspection/Audit Report and Evaluation
Content: Session 2 (3 Days)	Radioactive Waste Management (Requirements, Management, and Inspection)
	Emergency Preparedness and Response
	Public Exposure Control
	Practical: Radioactive waste management and EPR drill and Evaluation
Content: Session 3 (1 day)	Transport Safety
	Development of an internal training program
	Feedback Recommendations
	Certificate Presentation



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TRAINING COURSE ON PERSONAL AND WORKPLACE MONITORING (DOSIMETRY TRAINING)

Course Description:

A comprehensive training course on personal and workplace monitoring, focusing on requirements procedures for use of badges, dose limits and the applications the Harshaw TLD and the Landauer OSL Reader systems. The responsibility of the RSO for personal and workplace monitoring shall be emphasised. Participants will gain understanding of the fundamental principles of Radiation Measurement and Occupational Radiation Protection requirements. Participants will also learn how to promote effective personal monitoring in their workplaces.

Target Audience:

Occupationally Exposed Workers (e. g Radiographers, X-ray Operators, Engineers), Radiation Safety Officers, Health Administrators, SHEQ officers and all other users of radiation technologies.

Course Content	
Individual Monitoring and Worker Protection	<ul style="list-style-type: none"> • Introduction & Objectives of Individual Monitoring • International Standards/Standard Requirements • Regulatory requirements for Occupational Radiation Protection. • Exposure Situations and Locum Workers • Reference Levels and Overexposure • National Dose Registry and Record Keeping
Thermoluminescence Systems	<ul style="list-style-type: none"> • Basics of Thermoluminescence • Dosimeter Configurations and Applications
Optically Stimulated Luminescence Systems	<ul style="list-style-type: none"> • Basics of Optically Stimulated Luminescence. • Dosimeter Configurations and Applications • Calibration facilities and QA procedures
Workplace Monitoring	<ul style="list-style-type: none"> • Proper use and care, interpretation of results • Non/late dosimeter submission • Workplace Monitoring Instruments • Q&A, Practical Exercises



BASIC RADIATION SAFETY TRAINING FOR NATURALLY OCCURRING RADIOACTIVE MATERIALS (NORM) SAFETY OFFICERS

The training course is designed to capacitate nominated NORM Safety Officers on the management of a NORM Radiation Protection Programmes in line with the requirements of Statutory Instrument 99 of 2013. Section 15 of the Radiation Protection Act [Chapter 15:15] require facilities to appoint a radiation safety officer, further it is a requirement that appointed person undergo a Basic Radiation Safety Training to aid in the discharge of their functions.

Subject to Covid-19 Guidelines.

Workshop Details	
Target Audience	<ul style="list-style-type: none"> NORM Safety Officers (<i>Regulatory Requirement, Compulsory</i>) SHE(Q) Practitioners & Operators in NORM Industries
Beneficiary of the training workshop	<ul style="list-style-type: none"> Industries with NORM, Facilities under NORM Monitoring and Licensing Mining and Mineral Processing, Water and Wastewater Treatment, Brickmaking and quarrying as classified under SI 1 of 2021.
Workshop Content	<ul style="list-style-type: none"> Basis of radioactivity and the associated health hazards, NORM Inventories, residue and wastes, exposure rates National Policy and Strategies, Legislation, Regulations and Requirements, regulatory guidance Regulatory Criteria, Exemption, Annual Monitoring and Licensing NORM Characterization in Industrial and Mining Operations (appropriate sampling and monitoring & analytical methodologies, QA & QC) Case Studies; NORM Industries and NORM Facilities Development of a Monitoring Plan and NORM Management Program Residue and Waste Management (life cycle management; cost assessment; management options for residues/wastes) Selection of management options, transportation requirements Decommissioning and Remediation of Contaminated Sites

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**NATIONAL SEMINAR ON MANAGEMENT OF RADIOACTIVITY IN WATER:
RADIOLOGICAL WATER QUALITY MONITORING REQUIREMENTS**

The purpose of the seminar is to unpack and create awareness on the requirements for radiological water quality in line with World Health Organisation (WHO) guidelines on radiological water quality. National requirements have aligned to this guideline through Statutory 99 of 2013 (Radiation Protection (NORM) Regulations) and Statutory Instrument 1 of 2021 that require the sector to assess radioactivity in water within their processes and put in place protective actions where necessary to protect workers and the public.

Seminar Details	
Outcome	National Framework and Action Plan on Radiological Water Quality
Target Audience	Local Authorities, operators of waste-water and water supply, associations responsible for local authorities, water purification facilities and government departments and agencies, WASH Sector, manufacturing industry, bulk water suppliers
Workshop Content	Radioactivity in Water and the Associated Health Hazards
	International Safety Standards (Management of Radioactivity in Drinking Water)
	National Requirements for Management of Radioactivity in Water
	Assessment, analysis and monitoring of radioactivity in water
	Water Quality Monitoring: Cost Effective Radioactivity Monitoring Program
	Remediation

The program is in line with the World Health Organisation (WHO) guidelines on Management of Radioactivity in Water, particular chapter on Radiological Water Quality.





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TRAINING COURSE ON MANAGEMENT OF RADIOACTIVITY IN WASTE-WATER TREATMENT AND WATER PURIFICATION

The training course is a requirement for operators of waste-water and water purification facilities, it seeks to develop competence of these facilities to manage radioactivity in water. This is in line with Statutory 99 of 2013 (Radiation Protection (NORM) Regulations) and Statutory Instrument 1 of 2021 that require these facilities to assess radioactivity within their processes and put in place protective actions where necessary.

Training Details	
Target Audience	<ul style="list-style-type: none"> Local Authorities, waste-water and water treatment facilities Water purification and bottling facilities Laboratories with a Responsibility for Water Quality, WASH Sector
Workshop Content	Basics of Radiation
	Principles of Radiation Protection
	Radioactivity in Water and the Associated Health Hazards
	International Safety Standards for Management of Radioactivity in Water
	National Requirements for Management of Radioactivity in Water; SI 99 of 2013 and SI 01 of 2021
	Measurement Techniques for Radioactivity in Water
	Site Assessments and sampling
	Sample Analysis Methods and Interpretation of Results
	Development of a Monitoring Programme
Remediation and Management of Situations where Activity Concentrations Exceed Standards	

The program is in line with the WHO guideline on Management of Radioactivity in Water, particular chapter on Radiological Water Quality.

The Authority also offers facility-based awareness training, safety talks, tailor-made RSO and NORM Safety Officers training.

Other services offered include, dosimetry service, gamma and alpha spectrometry, workplace monitoring/assessments, radiological environmental impact assessments, leak testing and consultancy on request.

Booking:

To book anyone of these training programs, or for more information, contact us on;

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