

**INTERNATIONAL STAFF  
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**МЕЖДУНАРОДНЫЙ ЦЕНТР  
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**ADVANCED TRAINING PROGRAM**  
Basics of radiation safety at an enterprise

Duration: 40 h

Form: off-the-job

№	Topics
1	<b>Organization of state regulation in the field of atomic energy use.</b>
1.1	Introduction
1.2	Legislative framework for ensuring radiation safety
1.3	State regulatory authorities. Federal authorities for supervision of radiation safety.
1.4	Purpose and functions of the Federal Service for Environmental, Technological and Nuclear Supervision
1.5	Licensing of activities related to sources of ionizing radiation.
2	<b>Fundamentals of Radiation Safety</b>
2.1	Characteristics of the types of ionizing radiation hazards
2.2	The nature and consequences of the effects of ionizing radiation on the human body
2.3	Standardization of ionizing radiation.
2.4	Basic provisions of НРБ-99/2009 and ОСПОРБ-99/2010. Radiation safety requirements when working with sources of ionizing radiation.
2.5	A set of measures to ensure radiation safety. Organizational and technical requirements for ensuring the safety of radiation sources.
2.6	System of state accounting and control of radioactive substances and radioactive waste. Requirements for ensuring physical protection of radiation sources, storage facilities for radioactive substances and radioactive waste.
3	<b>Organization of industrial radiation monitoring and assessment of working conditions.</b>
3.1	Organization of radiation survey of territories and premises.
3.2	Radiation safety service, organization and structure. Estimation of the scope of work and staffing for its execution.
3.3	Organization of individual and operational radiation monitoring. Principles of drawing up and maintaining operational and guidance material.
3.4	Methods for monitoring radioactive contamination. Sampling, transportation and storage of samples.
3.5	Rights and obligations of persons responsible for organizing and ensuring radiation safety and conducting industrial radiation monitoring.
3.6	Assessment of workplaces. Providing benefits and compensation for work in the field of nuclear energy use.
3.7	Rights and benefits of persons working with sources of ionizing radiation
4	<b>Monitoring of ionizing radiation and protection against it.</b>
4.1	Basic properties of ionizing radiation. Nuclear reactions. X-ray radiation.
4.2	Methods for recording ionizing radiation. Basic dosimetric quantities and their measurement units.
4.3	Dosimetric and radiometric measurements
4.4	Methods of individual radiation monitoring.
4.5	Protection against ionizing radiation. Methods for calculating radiation protection.
4.6	Personal and collective protective equipment.
5	<b>Radiation incidents and accidents, decontamination and removal of radioactive</b>

	<b>contamination.</b>
5.1	Radiation incidents. Procedure for information, investigation and elimination of consequences.
5.2	Organization of work to eliminate radiation accidents and search for sources of ionizing radiation.
5.3	Basic principles of decontamination. Organization, means, methods.
5.4	Collection and disposal of radioactive waste. Requirements of the CIIPO-2002 rules.
5.5	Criminal liability for illegal actions with radioactive substances.
Final certification	