

## DEPARTMENT OF SCIENCE AND TECHNOLOGY PHILIPPINE NUCLEAR RESEARCH INSTITUTE

## COURSE INFORMATION BULLETIN

PNRI/NTC Form 20 Rev. 1/ 01 June 2022

Course Title	Radiation Safety Course - Industrial Radiography (RSC-IR)
Duration	Ten days (80 hours); 8:00 – 5:00 pm
Target Participant	For individuals involved or will be involved in the use of gamma radiography on- site and in shielded enclosures.
Pre-requisite	A bachelor's degree in physical sciences or equivalent courses. Successful completion of the Non-Destructive Testing Course on Radiographic Testing (RT) Level 2 or equivalent.
Goal	To enable participants to acquire a sufficient level of understanding/skills in the following areas (1) basic radiation and radioactivity concepts; (2) fundamentals of radiation safety and security; (3) regulatory requirements; and (4) development and implementation of a radiation safety program applicable to their practice.
Objectives	<ol> <li>Participants should be able to:         <ol> <li>Identify the nature and severity of ionizing radiation hazards.</li> <li>Describe the nature and properties of gamma radiation and its associated hazards.</li> <li>Acquire a sufficient understanding of the applicable parts of CPR and apply them in industrial radiography activities.</li> <li>Explain and apply the principles of radiation protection.</li> <li>Apply basic concepts of radiation control practices and be able to perform calculations with these factors.</li> <li>Apply practical methods for reducing doses.</li> <li>Demonstrate acceptable work practices,</li> <li>Demonstrate ability to perform radiation surveys and correct operation of equipment</li> <li>Recognize an unusual situation and take the appropriate immediate actions to control doses.</li> <li>Develop a radiation safety program appropriate for their practice.</li> </ol> </li> </ol>
Nature and Scope	<ul> <li>This course consists of lectures, exercises, a workshop, and examinations. The participant's understanding of the subject matter presented is assessed through the following: <ol> <li>Pre and post-test given before and after the course (post-test of 55%)</li> <li>Development and group presentation of a Radiation Protection and Safety Program (30%)</li> <li>Practical exercises (10%)</li> <li>Attendance (5%)</li> </ol> </li> <li>A certificate of completion will be issued to each participant with an overall grade of at least 75%.</li> </ul>

Commonwealth Avenue, Diliman, Quezon City PO Box 213 UP Quezon City | PO Box932 Manila | PO Box1314 Central, Quezon City Telephone (632) 8929-60-10 to 19 Fax (632) 8920-16-46

## CONTACT US

(f) /PNRIDOST

Ntc@pnri.dost.gov.ph

PNRI.DOST.GOV.PH

#### TO APPLY FOR A COURSE, VISIT:

https://services.pnri.dost.gov.ph/portal



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COURSE INFORMATION BULLETIN

PNRI/NTC Form 20 Rev. 1/ 01 June 2022

Requirements	(1) NTC Online Application; (2) Recommendation Letter to attend the course from Supervisor; (3) Medical Certificate; (4)1x1 ID picture; (5) Training Fee of Php 10,000.00
Course Content	Overview of Radiation Sources Used in Industrial Radiography Review of Fundamentals Interaction of Radiation with Matter Biological Effects of Ionizing Radiation External Dose Radiation Shielding Dose and Shielding Calculations Basic Principles of Radiation Protection Radiation Detection and Measurement Radiation Detection and Measurement Radiation Monitoring Exercise on Radiation Monitoring Instruments Radiation Control Practices Leak Testing Exercise on Leak Testing Radiographic Exposure Devices Repair and Maintenance of Radiographic Equipment Applicable Parts of the Code of PNRI Regulations Licensing Requirements and Procedures/ Duties and Responsibilities of RSO Security of Radiation Sources Safe and Secure Transport of Radioactive Materials Applicable Radioactive Waste Management Practices Case Histories in Industrial Radiography Emergency Planning and Preparedness Emergency Drill Development of a Safety Culture Development of a Radiation Safety Program Presentation of Radiation Safety Program

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