

TRAINEE INDUSTRIAL RADIOGRAPHER PRACTICAL AND OJT TRAINING LOGBOOK

NAME: <i>(Print full name)</i>	ID:
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AUTHORITY HOLDER PROVIDING TRAINING:	SPBNDT AFFILIATE NO.:
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1. The trainee must provide documentation of successful completion of on-the-job training (OJT) with a minimum of 480 hours under the supervision of an approved and authorized industrial radiographer. *(Code of Practice Gamma and X-ray section 2.4)*. The training plan below should to be completed and signed off by the Trainee, Trainer, RPO and Authority Holder.

2. The following reference documents are required to facilitate this training:
 - Document No: SPBNDT/IRPAP/001/17, available on SPBNDT website www.professional-body-ndt.org.za)
 - Regulations relating to Group IV Hazardous Substances No. R. 247, 26 Feb 1993. Section 5);
 - Code of Practice for Industrial Radiography (Gamma and X-ray);
 - IAEA Specific Safety Guide No. SSG-11, 2011.
 - Authority Holder’s organization local rules.

3. All Trainers should complete the table below:

Name and Surname	SPBNDT IR No	Specimen Signature

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Activity	# Hours	Date completed	Trainer Signature
1. Induction			
Company induction.			
Introduction to the senior manager designated as having overall responsibility for overseeing radiation safety and verifying that industrial radiography be carried out in accordance with regulatory requirements. <i>(Regulations relating to Group IV Hazardous Substances No. R. 247, 26 Feb 1993. Section 5)</i>			
Introduction to the company RPO/ARPO's.			
2. Company Radiation Protection Programme.			
Explain the Management structure and policies. <i>(Company Quality Management System)</i>			
Explain the assignment of individual responsibilities for radiation safety. <i>(While the primary responsibility for radiation safety lies with the operating organization, radiographers (including trainees and assistants) have a responsibility to work safely and to take all reasonable actions to restrict their own exposure and those of other workers and members of the public)</i>			
Explain the education and training programme including overview of the SPBNDD Radiation safety Programme. <i>(Document No: SPBNDD/IRRPP/002/17, available on SPBNDD website www.professional-body-ndt.org.za)</i>			
Explain the local rules and supervision. <i>(Specific to Authority Holders organisation)</i>			
Introduction to designated controlled or supervised areas. <i>(Specific to Authority Holders organisation)</i>			
Explain the Monitoring of workers and the workplace, including the acquisition and maintenance for radiation protection purposes. <i>(Code of practice, Gamma section 9, X-ray section 7))</i>			
Explain Health surveillance programme. <i>(Code of practice, Gamma section 2, X-ray section 2 and local rules)</i>			
Explain the System for recording and reporting all relevant information relating to the control of exposures, decisions regarding measures for occupational radiation protection and safety, monitoring of individuals. <i>(Local rules)</i>			
Explain and demonstrate the Emergency preparedness plans. <i>(Specific to Authority Holders organisation)</i>			
Explain the Mechanism for the review and updating of the arrangements. <i>(Specific to Authority Holders organisation)</i>			
Explain the Regulatory compliance inspection and enforcement. <i>(Code of Practices)</i>			
Explain the Human factors and practical applications pertaining to the work environment including the impact of substance abuse, fatigue and stress. <i>(Specific to Authority Holders organisation)</i>			
3. Facilities and Resources. (Gamma)			
Demonstrate the Company facilities.			
Demonstrate the Company resources.			

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Explain Radioactive source control.			
Demonstrate Marking and labelling of sources.			
Demonstrate the use of Collimators.			
Demonstrate the use of Ancillary equipment.			
Explain and demonstrate Storage of radioactive sources. <i>(Code of practice, Gamma section 5 and local rules)</i>			
Explain leak tests and whom should do these tests.			
4. Inspection and maintenance (Gamma)			
Explain General good practice. <i>(Local rules)</i>			
Explain and demonstrate Routine Inspection. <i>(Local rules)</i>			
Explain and demonstrate the Maintenance programme. <i>(Code of practice, Gamma section 5 and local rules).</i>			
5. Facilities and Resources (X-ray)			
Demonstrate Company facilities.			
Demonstrate Company resources.			
Explain and demonstrate Electrical safety.			
Demonstrate the use of Lead caps. <i>(Code of practice, X-ray section 3.2).</i>			
Demonstrate the use of Diaphragms. <i>(Code of practice, X-ray section 3.4). Not required for X-ray crawlers.</i>			
Explain and demonstrate Cable length. <i>(Code of practice, X-ray section 3.6).</i>			
Explain and demonstrate the use of Collimators and beam filters.			
Explain the features and demonstrate the use of Control panel. <i>(Code of practice, X-ray section 3.7).</i>			
Demonstrate supporting the X-ray tube head and measurement of leakage radiation. <i>(Code of practice, X-ray section 3.11 & 12).</i>			
Explain the additional precautions required for use of Flash x-ray units. <i>(The majority of dose rate meters are unsuitable for measurement of dose rates near flash units, owing to the extremely short pulse time of the units and the relatively slow response time of the meters. Instead, suitable integrating dosimeters should be used)</i>			
Explain the additional precautions required for use of Accelerators. <i>(More comprehensive control measures need to be taken to restrict the exposure to radiation of radiographers due to the high energy x-rays produced. In addition, appropriate portable survey meters should be used that respond accurately to the pulsed nature of the radiation field. Survey meters used for conventional gamma and x-ray radiography should be confirmed to be suitable prior to use with accelerators)</i>			

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6. Inspection and Maintenance (X-ray)			
Explain General good practice. <i>(SSG-11 section 9.47)</i>			
Explain and demonstrate Routine Inspection. <i>(Operating manual and/or SSG-11 section 9.49)</i>			
Explain and demonstrate the Maintenance programme <i>(Local rules)</i>			
7. Radiography in Shielded Enclosure			
Explain and demonstrate the Sources or radiation generator that may be used and the specific work to be carried out.			
Explain and demonstrate the check for Air scattering of radiation (or 'sky shine') and scattering from objects outside enclosures without shielded roof.			
8. Safety Systems and Warning Systems for Gamma Radiography			
Explain and demonstrate Door interlocks.			
Explain and demonstrate Warning signals and notices.			
Explain and demonstrate Emergency stop buttons or pull-cords.			
9. Safety Systems and Warning Systems for X-ray Generators			
Explain and demonstrate Door interlocks.			
Explain and demonstrate Warning signals and notices.			
Explain and demonstrate Emergency stop buttons or pull-cords.			
10. Procedures for Radiography in Shielded Enclosure			
Explain the Level of competence required for radiographers			
Demonstrate the availability of written operating procedures and emergency procedures.			
Demonstrate the Use of radiation survey meter during entry to shielded enclosure.			
Explain and demonstrate Dose rates outside the shielded enclosure including reference levels.			
Explain and demonstrate the check for Functionality of the survey meter at the beginning of each shift.			
Explain and demonstrate the Use of collimators and additional shielding.			
Explain Verification that no one is inside before exposure.			
Explain Procedures for radiographing unusually long items that do not fit behind closed doors. <i>(Use site radiography procedure)</i>			
11. Procedures for Site Radiography			
Explain the need for work permit procedures and demonstrate completion of documentation. <i>(Own Organisation and Client)</i>			
Explain and demonstrate Preparation for site radiography.			

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Explain Cooperation with the client.			
Explain and demonstrate Demarcating the boundary of the controlled area.			
Demonstrate Warning signals.			
Demonstrate Notices.			
Explain and demonstrate Patrolling and monitoring the boundary.			
Explain and demonstrate Monitoring with portable survey meters and Personal dosimeters and alarm monitors.			
Explain Selection of lowest activity source consistent with obtaining the desired radiograph.			
Explain Benefits of using lower activity sources.			
Explain Good working order of equipment.			
Explain Transient dose rates. <i>(Dose rates outside the boundary when the source is in its collimator during wind-out and wind in operations for radiography source will be much higher than the dose rates during actual exposure. Additional care should be taken during these operations, especially to confirm that there are no persons standing at the boundary of the controlled area, and wind-out and wind-in operations should be conducted quickly).</i>			
Explain Storage of sources at remote locations.			
Explain Completion of work and removal of source from site.			
Explain Additional precautions for site X-ray radiography including the use of accelerators.			
12. Transport of Radioactive Sources			
Explain and demonstrate Movement within the worksite.			
Explain and demonstrate Transport to another site.			
13. Emergency			
Explain Emergency plans.			
Explain Types of emergency as identified and included in organisations assessment reports.			
Explain and demonstrate Emergency equipment.			
Explain Regular audits to check availability and functions correctly.			
Explain and conduct Training exercises.			
	Actual Hours		
	Required Hours	16	
Remarks:			

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	14. Practical Work (Under direct supervision) Briefly describe the work and location.			

