

	INTERNAL PROCEDURE	
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**NNRA REQUIREMENTS FOR AUTHORIZATION OF
INDUSTRIAL RADIOGRAPHY PRACTICE**

Effective Date: January, 2006	Ref. No.:	Identification code:
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NNRA REQUIREMENTS FOR INDUSTRIAL RADIOGRAPHY PRACTICE

a) Administrative Requirements

- i. Completion and submission of the attached Authorization Application Form. The Form and the Guide for filling the Form could also be downloaded from the NNRA website at www.nnra.gov.ng.
- ii. Provision of a certified copies of Memorandum and Article of Association, Certificate of Incorporation from CAC and Particulars of your First Directors (Form C02 & C05)
- iii. Certificate of Registration of DPR for 2011
- iv. Payment of applicable authorization fees in accordance with Section 47 (1c) of Nuclear Safety and Radiation Protection Act 19 of 1995 and Federal Government approval of 2012:

Industrial Radiography

(a) Radioactive Source Based

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| a. | Registration of Premises (1 to 5 nos. radioactive sources) | ₦1,500,000 per site p.a. |
| b. | Registration of Premises (6 to 10 nos. radioactive sources) | ₦2,500,000 per site p.a. |
| c. | Registration of Premises (Above 10 nos. radioactive sources) | ₦5,000,000 per site p.a. |
| d. | Licence to Use (1 to 5 nos. radioactive sources) | ₦1,500,000 p.a. |
| e. | Licence to Use (6 to 10 nos. radioactive sources) | ₦2,500,000 p.a. |
| f. | Licence to Use (Above 10 nos. radioactive sources) | ₦5,000,000 p.a. |
| g. | License to Import (for not more than 200 Ci) | ₦2,500,000 each |
| h. | License to Import any additional 100 Ci after the 200 Ci | ₦500,000 |
| i. | Licence for Transfer of sources (transferor and transferee) | ₦5,000,000 per Transaction |

(b) X-ray Based

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| a. | Registration of Premises | ₦1,500,000 per site p.a. |
| b. | Licence to Use | ₦1,500,000 p.a. |
| c. | License to Import Industrial x-ray machine | ₦1,000,000 per Machine |
| d. | Licence for Transfer of sources (transferor and transferee) | ₦2,000,000 per Transaction. |
- v. Enlisting the services of an NNRA accredited Radiation Safety Adviser (RSA) to assist you in attaining the requirements
 - vi. Contractual agreement with the NNRA accredited Dosimetry Service Provider for personnel monitoring
 - vii. Designation of an officer who shall develop skills in basic radiation safety and understand the regulatory requirements for practices involving radioactive materials and ionizing radiation

b) Personnel/Training

- i. Evidence of having staff that are trained in radiation protection in the handling of radioactive sources by an NNRA accredited RSA
- ii. Evidence of designation of a Radiation Safety officer (RSO) RSO indicating his job description and authority to stop unsafe practice.
- iii. Copies of CVs, academic and professional qualifications of staff and letters of their appointments.

c) Equipment

- i. Maintenance and repair programme
- ii. Instruments test and calibration certificates.
- iii. Details of overall safety systems including design features, Defense in depth and prevention of unauthorized access to equipment when activated

d) Storage Facility

- i. Evidence of having storage facility and submission of detailed diagram of the layout of the storage facility and security arrangement at the storage site
- ii. Shielding assessment of the facility and demarcation of the control and supervised areas.

e) Transportation

- i. Procedures for transportation of radioactive sources locally and role of the driver as well as the certification of the driver with respect to radiation protection.
- ii. Transportation and Security arrangement for source movement from the port to base (source pit)
- iii. Letter from Police Anti-Bomb Squad to escort the sources consignment from port to base

- iv. Dedicating a vehicle for the transportation of radioactive sources. This vehicle shall meet the following minimum requirements:
 - a. Provisions shall be made to secure packages or over packs so that their positions within the vehicle remain fixed during transportation
 - b. Vehicle must be equipped with an enclosure which, during conditions of transport, prevents the access of unauthorized persons to the interior of the enclosure
 - c. Radiation levels shall not exceed 2mSv/hr at any point on, and 0.1mSv/hr at 1m from the surface of the containers
 - d. For further details, please refer to the Nigerian Transportation of Radioactive Sources Regulations, 2006

f) Radiation Protection Programme

- i. Adequate programs for radiation protection, safety and security in the handling and transportation of radioactive sources
- ii. Emergency contact numbers and that of NNRA contact numbers should be included in your emergency programme
- iii. Description of policies for assigning monitoring badges to workers, review of individual doses including reference levels and actions to be taken when values are exceeded
- v. Area Classification, Workplace and Personnel Monitoring Policies and Programs including procedures and reference levels.
- vi. Establishment of local rules in written form which should describe how the use of sealed sources will be carried out in compliance with the requirements of Nuclear Safety and Radiation Protection Act and other extant Regulations during Site and Installation Radiography. The rules should include the following:
 - a. a description of controlled and supervised areas around fixed facilities;
 - b. designation of controlled and supervised areas during radiography works, including procedures for setting up barriers and erecting warning signs;
 - c. control of access to designated areas;
 - d. operating instructions for the radiographic equipment and safety systems;
 - e. requirements for individual and area monitoring;
 - f. name of the Radiation Safety Officer;
 - g. transportation and storage of radioactive sources;
 - h. co-operation with clients and other employees during radiography works;
 - i. emergency plans for dealing with foreseeable emergencies.
 - j. policy on female worker

NOTE: Upon receipt of completed Application For Authorization Form, applicable fees and documents reflecting the requirements listed above, a date shall be fixed for inspection of the applicant. Necessary authorizations shall be issued upon a satisfactory report of the inspection exercise.