**NNRA REQUIREMENTS FOR MARINE TRANSPORTATION /HANDLING OF RADIOACTIVE MATERIALS**

**1. Facility**

* Provide detailed information of the location of facility for which authorization is needed.
* Layout plan or sketch of the Barge indicating the area where radioactive materials will be place.
* Describe overall safety system.

**2. Equipment**

* Monitoring instrument (survey meter)

**3. Radiation Protection Programme**

Development of the working document which include the following;

1. Introduction of the company (company profile)
2. Safety Policy statement
3. Mission
4. Objectives
5. Scope
6. Description of barges with dimensions
7. Barge Specifications
8. Management responsibility
9. Organizational Structure
10. Radiation Protection Principle
11. Radiation Dose Limits
12. Controlled and Supervised Area
13. Health Surveillance program
14. Emergency Procedure and Preparedness
15. Personnel monitoring program
16. Workplace monitoring program
17. Quality Assurance program
18. Local Rules and supervision
19. Training of Personnel
20. System of records
21. Responsibilities of Radiation Safety Officer (RSO)
22. Responsibilities of radiation workers
23. Responsibilities of Radiation Safety Adviser (RSA)

**4. Other Requirements**

1. Dosimetry Service Provider (contractual agreement/allocation of TLD badges for personnel)
2. RSO Training certificates
3. CVs/Credentials of radiation workers
4. Radiation safety Adviser (RSA)(Service agreement per annum)
5. Medical retainership
6. Personnel fitness certificate
7. Training plan for 2022

**COST ANAYLYSIS**

1. NNRA authorization fees

* Accreditation Certificate N2.5m p.a
* Registration of Barges N1m per Barge/Boat p.a

1. Monitoring instrument (Survey meter) N700k-900k
2. Development of Radiation Protection Program N1.5m
3. Dosimetry Service Provider (contractual agreement/Allocation of TLD badges to radiation workers) N150k

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