

اوتوريتي كبغسائ كسلامتن كصيحتن دان عالم سكيتر

Safety, Health and Environment National Authority

GUIDELINES ON MANAGEMENT OF DISUSED CONTROLLED APPARATUS

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1. INTRODUCTION

Radiation Protection Act, Chapter 228 (the Act) controls and regulates the import, export, manufacture, sale, disposal, transport, storage, possession, and use of radioactive materials and controlled apparatus within Brunei Darussalam. The Safety, Health and Environment National Authority (SHENA) is an Authority responsible for administering and enforcing this legislation.

Any persons who conduct radiation activity involving controlled apparatus, per Section 7 under the Act, must be licensed with the Authority. The licensee must comply with every condition of the issued licence.

2. PURPOSE

This document serves as an additional guideline for Radiation Licensees or Radiation Protection Officers (**RPO**) to use to safely and efficiently manage their controlled apparatus. It provides methods for managing controlled apparatus if the licensee no longer intends to use them in the practices they were authorised for.

This is also to further supplement disposal requirements under Section 7(4) of the Act and Part 11: Disposal Plan of the Guideline on Radiation Protection Programme (**RPP**) Requirements (Rev.1) as published on the SHENA official website.

3. SCOPE

This guideline applies to all licensee or RPOs who possess or have under their control the controlled apparatus and intend to dispose of it due to the lack of intention to operate it further.

This document serves as a guideline for all other instances involving controlled apparatus, ensuring greater compliance with regulatory requirements as per the Act.

4. **DEFINITIONS**

The following terms used in this guideline are defined as follows:

i. Controlled Apparatus:

- (a) an apparatus that produces ionising radiation when energised or that would, if assembled or repaired, be capable of producing ionising radiation when energised;
- (b) an apparatus that produces ionising radiation because it contains radioactive material;
- (c) an apparatus prescribed by regulations made under this Act that produces harmful non-ionising radiation when energised.
- ii. <u>Disused Controlled Apparatus</u>: Controlled apparatus that are no longer used and are not intended to be used again in the practices for which they were authorised for.

5. METHODS TO MANAGE DISUSED CONTROLLED APPARATUS

In reference to the Radiation Technical Note (RTN) on Notification on Management of Disused Radioactive Material and Controlled Apparatus (Ref. No.: 2020/RTN/05), licensees who possess or control any controlled apparatus are required to submit their management plan for disused controlled apparatus to SHENA.

The following methods described are options recommended for the management of disused controlled apparatus:

5.1 Reuse by transfer of ownership

Another user can reuse the controlled apparatus by transferring it to another licensee (a local user or local supplier). Licensee/RPO possessing the controlled apparatus must notify SHENA of their intent to transfer via email at radapplication@shena.gov.bn. Both transferring and receiving companies must submit a Radiation Licence Application Form along with an updated Radiation Protection Programme (RPP) to amend their licenses to reflect the removal and addition of the apparatus, respectively.

The application form can be downloaded from SHENA's official website. Completed applications will be processed in accordance with SHENA's standard operating procedures (see Appendix A).

Both transferring and receiving companies must satisfy the following conditions:

- Possess a valid radiation licence issued by SHENA;
- ii. If the receiving company is a user, type of licensed activities must include the use and possession of controlled apparatus;
- iii. If the receiving company is a supplier, the type of licensed activities must include sell and possession of controlled apparatus; and
- iv. Ensure the controlled apparatus model is within licence.

5.2 Dismantling of Controlled Apparatus

Licensees may dispose of controlled apparatus by dismantling it, which requires making it inoperable. This includes the removal and dismantling the x-ray tube contained inside the controlled apparatus. Before proceeding with the dismantling activity, licensees must obtain a suitable radiation licence from SHENA for disposal activities.

Approval from SHENA is required prior to dismantling the controlled apparatus. To request approval, submit a Controlled Apparatus Disposal Application Form via email at radenforcement@shena.gov.bn.

Applicant must ensure that the following requirements are met at the time of application:

- i. The application form submitted is specifically for the disposal of controlled apparatus in Brunei Darussalam.
- ii. The application must be submitted along with all supporting documents as listed in the application form.

The application form can be obtained from SHENA's official website. Completed applications will be processed in accordance with SHENA's standard operating procedures (see Appendix B).

When dismantling a controlled apparatus, the licensee must ensure that it is rendered inoperable and cannot be reassembled in a way that would allow someone with expert knowledge and specialised components to restore its function.

Examples of dismantling of controlled apparatus that could be done are as follows:

- For an x-ray apparatus: eliminate the vacuum inside the x-ray tube by puncturing the glass tube located within the x-ray head. Also, sever the electric cables and any vital components in the x-ray generator.
- ii. For controlled apparatus containing radioactive material: the radioactive material must be removed before starting the dismantling activity. Should this method be chosen, it must be conducted by individuals with the necessary expertise, knowledge, equipment, and skills. Note: The radioactive material must be returned to the manufacturer.

Once a controlled apparatus is dismantled and rendered inoperable, or if the radioactive material is removed, it no longer meets the definition of a controlled apparatus and is therefore no longer subject to regulatory control. Individual dismantled parts are not considered controlled apparatus.

Hazardous materials, such as beryllium and mercury, must also be taken into account. The licensee is responsible for identifying the presence of these materials in the apparatus and ensuring that proper disposal procedures are followed. Dismantled materials, such as wires and heavy metals, should be either recycled or disposed of appropriately in accordance with applicable regulations and guidelines from relevant authorities.

The licensee must ensure adequate safety and security measures during the dismantling and disposal activities.

5.3 Export or Return to Supplier/Manufacturer Abroad

Disused controlled apparatus can be exported abroad either to the original supplier or manufacturer, or to other authorised companies.

Before acquiring controlled apparatus, it is recommended that local users or supplier companies establish a return agreement with the original supplier or manufacturer at the time of purchase. This agreement will ensure the return once the apparatus is no longer is use.

If no such agreement exists for controlled apparatus, local users or local supplier companies should find a supplier or manufacturer authorised to manage the controlled apparatus. They should then establish an agreement for the acceptance of the apparatus once it becomes disused.

Authorisation from SHENA is required for exporting controlled apparatus out of Brunei Darussalam. This is done by submitting the Radiation Import/Export Authorisation Form to SHENA via email at radapplication@shena.gov.bn, along with the necessary supporting documents. Once approved, SHENA will email the authorisation form back to the licensee, who must then submit the approved form through the Brunei Darussalam National Single Window (BDNSW) for permit endorsement.

The authorisation form can be downloaded from SHENA's official website. Completed applications will be processed in accordance with SHENA's standard operating procedures (see Appendix C).

To export controlled apparatus, the company must meet the following conditions:

- i. Hold a valid radiation licence issued by SHENA;
- ii. Ensure that the licensed activities include the import/export of controlled apparatus; and
- iii. Verify that the controlled apparatus model is covered by the licence.

6. EFFECTIVE DATE

These guidelines take effect immediately upon publication date on the SHENA website at www.shena.gov.bn. For any further questions regarding this guideline, the Radiation Licensees, Radiation Protection Officers, and new applicants can contact the Authority at:

Safety Health and Environment National Authority (SHENA)

Level 6, Knowledge Hub Building, Simpang 32-37, Kg Anggerek Desa, Bandar Seri Begawan BB3713 Brunei Darussalam

Operating hours : Mon – Fri 8:00am – 11:30am; 2:00pm – 4:00pm

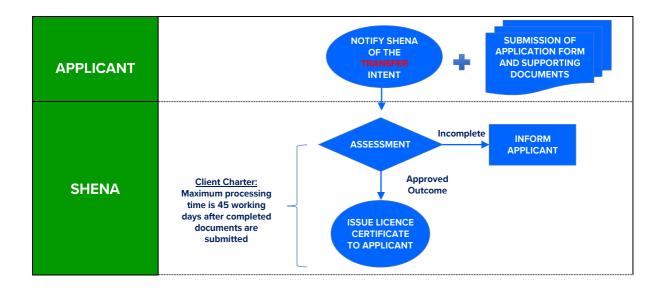
Office telephone no. : +673 238 2000 / +673 237 2200 Email address : radapplication@shena.gov.bn

7. REFERENCES

- i. Radiation Protection Act, Chapter 228 (RPA, 228).
- ii. SHENA Guidelines on Radiation Protection Programme (RPP) Requirements (Rev. 1).
- iii. 2020/RTN/05 Notification on Management of Disused Radioactive Material and Controlled Apparatus.
- iv. IAEA Guidance on the Management of Disused Radioactive Sources, 2018 (IAEA/CODEOC/MGT-DRS/2018).
- v. Panduan Tatacara Pengurusan Pemilikan Radas Penyinaran Yang Terdapat Dalam Pemilikan Pemegang Lesen 2020 (LEM/TEK/78).
- vi. Regulatory Guide Disposal of Sources (ARPANSA-GDE-1733).

APPENDIX A

PROCESS FLOW ON APPLICATION OF TRANSFER OF OWNERSHIP FOR REUSE

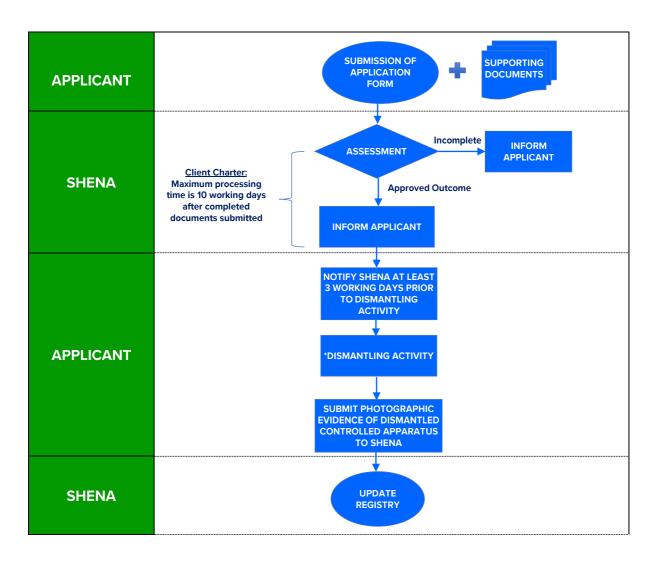


Notes:

- i. Both the transferring and receiving companies must submit their applications simultaneously or within the processing time after the initial submission.
- ii. If the receiving company is not an existing licensee, further assessment may be required. The maximum processing time for new licence application is 90 working days.

APPENDIX B

PROCESS FLOW OF CONTROLLED APPARATUS DISPOSAL APPLICATION



Note:

*SHENA reserves the right to conduct on-site verification inspection to ensure that the dismantling activity is undertaken in accordance with the approved methods.

APPENDIX C

PROCESS FLOW OF EXPORT OR RETURN TO SUPPLIER/MANUFACTURER ABROAD

