



International Workshop on Sustainable Management of Disused SRS, Lisbon, Portugal, Oct 11-15, 2010

Pakistan National Strategy in Managing DSRS

Pakistan Nuclear Regulatory Authority

www.pnra.org



Layout

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- Import Policy
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- Management of Sources at the End of Lifecycle
- Recycling/Reuse of Radioactive Material
- National strategies for gaining or regaining control over orphan sources,



Mission of PNRA

- To ensure safe operation of nuclear facilities and to protect radiation workers, general public and the environment from the harmful effects of radiation by formulating and implementing effective regulations and building a relationship of trust with the licensees and maintain transparency in its actions and decisions



Import Policy for DSRS(1)

Import policies for SRS as per regulations 915 (Annexure-III):

- A. *“SRS containing long lived radionuclides (half-life >1 year with initial activity of 100 GBq or more) shall not be purchased without the undertaking from the manufacturer/supplier to accept the return of the source(s) when:*
- a) no longer useful for the intended purpose (i.e. spent sources) or*
 - b) not useful for another purpose or*
 - c) not useful to another user in the country for another purpose.*



Import Policy for DSRS(2)

B. Management of spent sealed sources

Spent sealed sources, maintained in the inventory of the users for disposal and those not covered under 'A' above, shall be transported within Pakistan only under prior intimation to the Authority. The responsibility for the sources will remain that of the user/licensee until such time as the source(s) passes into the custody of waste storage facility designated by the Authority.



Implementing the import and export provisions of the Code of Conduct

- **No Objection Certificate (NOC)** is the basic requirement for Import as well as Export. Import/Export NOCs are only issued to the licensed user/importer.
- Following are the steps to get the authorization from the regulatory authority
 - **Consent/Permit:** Provision of “Permit” from the authority before placing Order.
 - Consent to exporting and/or from importing State in case of high activity sources.
 - **NOC:** Relevant documents are reviewed at PNRA, if the required criteria is fulfilled, the NOC is issued thereafter. 6



Management of Sources at the End of Lifecycle

- Regulations PAK/908, PAK/904, PAK/916, and PAK/915 address the complete life cycle of SRS i.e. from authorization to safe disposal respectively.
- No nuclear/radioactive waste/material permanent disposal facility;
 - However, the interim storage of the sources is common in practice.
- Two licensed interim storage facilities
 - PINSTECH for capital territory and northern part of the country
 - KANUPP for southern part of the country.
- Discussion on nuclear waste repository is in progress



Recycling/Reuse of Radioactive Material

- Reuse/recycle policy of the radioactive material as per PAK 915 (13):
 - *Reuse and recycling of materials shall be applied to the extent possible to keep the generation of radioactive waste to the minimum practicable.*
 - *The licensee using radioactive material shall not:*
 - *(a) dismantle any sealed source without prior approval of the Authority;*
 - *(b) transfer the material without confirmation that the organization to which it is to be transferred has the necessary authorization to hold/use/recycle that material.*



National Strategy for Gaining or Regaining Control over Orphan Sources

The strategy includes:

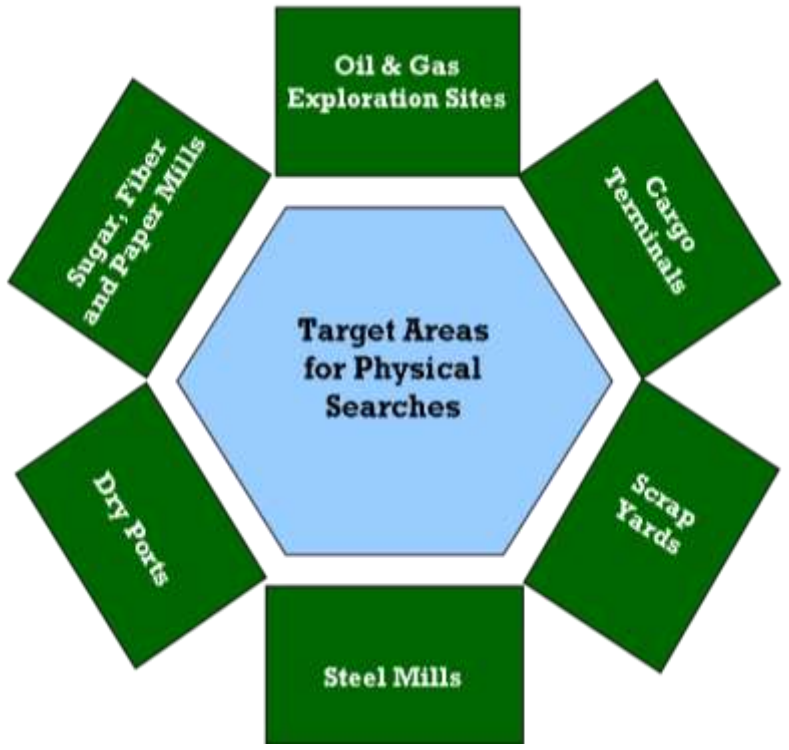
- Launching a public campaign through electronic and print media seeking information on orphan radioactive materials/sources.
- Locating such sources through non-physical and physical searches
- Securing and recovering the sources; and
- Disposal of the sources at the disposal facilities.



Public Awareness

Search Campaigns

Advertisements in News National Papers



Page-1 of Brochure on "Reducing Risk of Radioactivity in the Scrap Metal Industry"

Brochures



Thank You