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GOVERNMENT OF INDIA  
DEPARTMENT OF ATOMIC ENERGY  
CRISIS MANAGEMENT GROUP



**GUIDELINES FOR PUBLIC OFFICIALS  
TO HANDLE CASES OF REPORTED OR SUSPECTED  
PRESENCE OF RADIOACTIVE MATERIAL IN THE  
PUBLIC DOMAIN**

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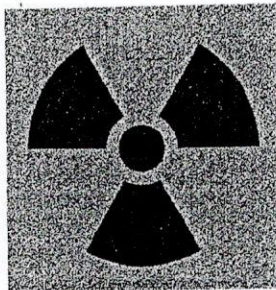
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RADIOACTIVE MATERIAL IN  
PUBLIC DOMAIN

1. INTRODUCTION

Radioactive materials (Radio Isotopes) are used in the country for a variety of applications in the fields of agriculture, medical diagnosis and therapy, non-destructive testing in industry, and various research applications including uses at Department of Atomic Energy (DAE) facilities. Handling of radioactive materials in the country and its movement in public domain are carried out in a safe and controlled manner adhering to provisions in the Atomic Energy Act (1962) and the rules framed therein. Requirement of radioactive materials for the above mentioned applications are mainly supplied by the Board of Radiation and Isotope Technology (BRIT), Mumbai, a constituent unit of DAE, and any shortfall in meeting the requirement is met through imports. These materials are transported by road / rail / air / sea to and from users across the country. In addition to movement of Radio Isotopes as mentioned above, there are other nuclear materials, such as nuclear reactor fuel, transported occasionally by road / rail between different units of DAE, for which dedicated approved documents (SOPs) are available.

Any consignment having radioactive material should mandatorily exhibit an internationally accepted symbol for radioactivity as shown below:



Every consignment of radioactive material during transport will be carrying a TRansport EMergency Card (TREM Card) which enlists the primary steps to be taken in case of an emergency during transport. [A typical TREM Card is given as Annexure A for reference].

With the increase in use of radioactive materials for its industrial, medical and research applications, cases of unauthorized or mis-declared consignments or consignments entering through unapproved route or inadvertent actions due to ignorance have started showing instances of radioactive material landing up in public domain without regulatory control. Department of Atomic Energy (DAE) and Ministry of Home Affairs (MHA) are the identified nodal ministries for taking actions in case of any radiation

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incident / emergency in public domain. While, DAE is designated as nodal ministry for providing technical advice and support for handling radiological incident / emergency in public domain; local police/security agencies, SDRF, NDRF etc. are identified as the First Responders for handling such scenarios. Hence, a need is felt to widely disseminate the guidelines for handling situations arising out of such presence of radioactive materials in the public domain to the public officials concerned. ***This document is intended to convey Guidelines to officials in the civil administration, such as the District Collector or District Magistrate, Police officials, officers in charge of the airports / seaports / railways, Public health care providers / Officials at primary health care centers, Border Crossing Posts, Heads of the non-DAE facilities etc. under whose jurisdictions radioactive materials are being handled or suspected to be present in the public domain.***

## 2. SCENARIOS ENVISAGED

Following are some typical scenarios wherein unauthorized / undesirable presence of radioactivity could be expected / suspected in public domain:

- 2.1 An accident during the transport of radioactive material.
- 2.2 A fire incident involving radioactive material in storage / transport.
- 2.3 Unclaimed / damaged radioactive consignments at air ports / sea ports / railway / roadway / warehouses.
- 2.4 Theft / loss of radioactive material from an authorized premise like hospital, industrial radiography facility, work site, temporary storage etc.
- 2.5 Presence of a container having 'Radiation Symbol', abandoned in a public area such as a scrap-yard or garbage dump.
- 2.6 Suspected smuggling / transporting of contraband items in sealed containers displaying radiation symbol.
- 2.7 Reported unauthorized possession / sale / auction / recycling of radioactive material / radioactively contaminated material.
- 2.8 Detection and recovery of suspected radioactive material by police.
- 2.9 Reported or suspected placing / presence of radioactive material with malicious intent in public areas or public utilities, etc.
- 2.10 Any incident with malicious intent including threats during transport of radioactive material.
- 2.11 Reports of suspected radiation induced injuries or symptoms of radiation exposure to individuals.
- 2.12 Any other event posing radiation hazard to member(s) of the public.

3. GUIDELINES FOR ACTIONS

The general course of action would be similar, by and large, for all such scenarios. The public officials concerned, such as the District Magistrate or equivalent / Superintendent of Police or equivalent (Jurisdictional Police) / Officer-in-Charge of the facility such as airport or seaport, hospital, etc. [the Responsible Officer (RO)] should:

- 3.1 Call local police and Fire Service, the first responders.
- 3.2 Inform / send message about the incident to the DAE Emergency Control Room (DAE-ECR) at Mumbai [contact details given in Annexure B].
- 3.3 Rescue injured personnel, if any, and cordon off the affected site to establish access control.
- 3.4 Provide medical assistance to the injured / suspected victims (as per need, technical advice to the concerned District / Health officials on the treatment of persons having radiation injury will be extended by DAE's medical expert team).
- 3.5 Carryout further actions described in the TREM Card (Transport Emergency Card), in case of an emergency arising out of an accident during transportation of radioactive material.
- 3.6 Arrange for security of the affected / suspected radioactive material.
- 3.7 Handle any law and order situation / contingency that may arise at the affected site.
- 3.8 Arrange to provide local assistance that may be required by the DAE's expert team to carry out their assessments / evaluation at the site.
- 3.9 Carryout further actions under the technical advice from DAE's experts.
- 3.10 Obtain Technical inputs from DAE experts prior to media briefing / issue of press release.

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Annexure A

Contents of a Typical TREM Card

TREMCARD

Cargo	Radioactive material
Nature of Hazard	Radioactive material, Potential external and internal exposure
Protective device to be carried in the vehicle	One set each, for the driver and his assistant, of protective clothing (boots, gloves, overalls, caps) Six number of big polythene bags for collecting contaminated material
Emergency action	<ol style="list-style-type: none"> <li>1 Inspect the package visually. If it is intact, ensure onward journey in the same or another vehicle.</li> <li>2 in case of fire, fight from a distance</li> <li>3 If the package appears to be damaged, cordon a distance of 3 m around the package</li> <li>4 Obtain the names and addresses of persons who might have been exposed to radiation and convey the particulars to the Head, RSD, AERB and to the Head, RP&amp;AD BARC</li> </ol>
First aid	Thoroughly wash the affected skin with plenty of water.
Contact telephone numbers for advice and assistance	<p>a) Contact the consignor at the address given on the package</p> <p>b) Emergency Control Room, Crisis Management Group DAE, Mumbai-400 001</p> <p>TF 022-2202 3978          Telefax- 022-22021714          Fax-022-22830441          Mobile- +919969201364          Email- <a href="mailto:daecrm@dae.gov.in">daecrm@dae.gov.in</a></p> <p><b>Alternate CMG - DAE          Emergency Control          Room (ECR)</b> located at          Anushakti Nagar (VSB)</p> <p>022-2599 1070          Telefax - 022-25515283*          Fax 022-25991080/022-25993080          Mobile- +919969201365          Email- <a href="mailto:vsbecr@npcil.co.in">vsbecr@npcil.co.in</a></p>

Annexure B

Contact Details of Department of Atomic Energy - Emergency Control Rooms  
(DAE-ECR) at Mumbai

DAE Emergency Control Room			
	Phone	Fax	E- mail
Anushakti Bhavan, C.S.M Marg, Mumbai PIN 400001 (24X7 operational)	022-22023978 022-22021714 09969201364	022-22830441	daeecr@dae.gov.in
Alternate DAE Emergency Control Room			
VS Bhavan Anushakti Nagar, Mumbai PIN 400094 (24X7 operational)	022-25991070 022-25991071 09969201365	022-2599 1080 022-2559 3080 022-2551 5283	vsbecr@npcil.co.in