Addendum to Core Model for Regulatory Oversight of Transport of Radioactive Material

Transport Safety Unit
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RAM is used in my country. What should my Country do?

• Ideally your Country should adopt as its own legislation the parts of the International recommendations that are applicable to the situation in your Country.

• The core basic legislation should be the transposition of the Basic Safety Standards for Radiation Protection.

• And then, for the transport of Ram, adopt/adapt/transpose into national legislation, the recommendations of the “UN-Orange Book” for Class 7 (Radioactive material)
RAM is used in my country. What should my Country do?

• If your government estimates that the situation in your country requires it, it can adopt legislation going further than the UN orange book and requires additional measures for reasons other than safety (for example security or for special environment protection).

• Bear in mind that the International Agreements derived from UN Orange Book (such as ADR, RID, TI from ICAO, IMDG from IMO) are facilitation agreements for international trade, any additional measures (specially if they are not necessary) are putting more cost and burden on international trade and also in your country.
A. RAM is used in my Country
   • What does CA need to know and do?
     1. BSS \( \Rightarrow \) licence/Authorisation for practices
     2. Holders \( \Rightarrow \) A1
     3. Carriers \( \Rightarrow \) A2

B. RAM is transported
   • What does CA need to know and do?
     1. Imports / exports / transit requirements \( \Rightarrow \) B1
     2. Shipments approval \( \Rightarrow \) B2
     3. Packages approval \( \Rightarrow \) B3

C. Ensure all aspects are covered.
   • Compliance regime
     1. CAs, Holders, carriers, manufacture, maintenance
     2. Shipments, packages suitability, vehicles
     3. Emergency
A. If fruit and vegetable are traded in the country only, there are only minimum requirements (if any).

B. But as soon as the country is exporting to another country it needs to take into account the requirements of the other country to avoid for example the spread of agricultural pests and diseases.

C. Then it would be simpler for the country to apply the same rules internally as externally.

D. The same argument apply for international trade in RAM, but in addition RAM is a dangerous substance if not handled properly, so there is a need to take care of the safety inside the country and then it is simpler to apply the same rules as international ones.
A. RAM is Used in My Country

Why do I need to do anything?

- RAM is a “Dangerous Good”
- (class 7 of UN classification; Other DGs petrol, chemical,..)
- If it is not handled properly there are health implications for members of public, transporter, handlers.
- There are International Regulations for use, transport of DG and in our case RAM
- As member of IAEA you have obligations to handle RAM properly

What do I need to do first as Competent Authority

- Be aware of the situation in your country
- Start to put in place measurers to control the situation
- Start to train staff involved in Regulatory Authority/TSO
- Start to put in place a Regulatory Framework
- Implement measures to handle RAM safely.
A. RAM is used in my Country

What do I need to do as Competent Authority

Basic Safety Standards requires CA to give licence or authorisation (L/A) for some practices involving RAM.

→

If required, provide licences, authorisations for
1. Holders of RAM
2. Importers/ exporters/ transit operations
3. Carriers.

What do I need to know as Competent Authority

• Know the situation in your country: users, locations, inventory, carriers.

• Action by CA:
  1. (Para b) of core model
  2. Provide form for licence or authorisation
A. RAM is used in my Country (L/A)

L/A for holders of RAM
Point A1

What L/A are needed?
1. L/A for HASS?
2. L/A for other RAM?

CA need to Issue list of
who needs a L/A
(see Point A1)

L/A for carriers
Point A2

Is transport an activity
requiring licence or
authorisation in my
country?

What does CA need to
know? (see Point A2)
A1 Licence/Authorisation for holders of RAM

No Licence/Authorisation required

But useful to know inventory, location, (Para CM-b)

Licence/Authorisation required

CA needs Information on

1. Sources (types, Nb, etc)
2. Do they have a radiation protection programme
3. Do they have/ maintain trained personnel
4. Do they have a management Plan
CA actions:

A. Provide list of who needs a L/A
B. Provide forms for
   1. Life cycle management of sources.
   2. Licence/ authorisation
C. Verify:
   1. Adequacy of life cycle provisions (code of conduct?)
   2. Radiation protection programme (Para CM-?)
   3. Training of operator (Para CM-g2)
   4. Management Plan
D. Issue licence
A2 Licence/Authorisation for Carriers of RAM

No Licence/Authorisation required

But useful to who they are (location, Para CM-b)

CA will need to include them in their inspection programme to check:
1. Do they have a radiation protection programme?
2. Do they have/ maintain trained personnel?
3. Certificates for drivers?

Licence/Authorisation required

CA needs Information on

1. What material do they usually transport (types, Nb, etc)
2. Do they have a radiation protection programme
3. Do they have/ maintain trained personnel
4. Certificates for drivers
B: RAM is Transported in my country

- What are the requirements to import/exports/transit for RAM in my country? \(\Rightarrow\) B1

- Shipment approval \(\Rightarrow\) B2

- Package approval \(\Rightarrow\) B3
What do I need to do as Competent Authority

Import Export Transit
What do I need to do prior to shipment, during and after?:
Provide clear requirements (template for I/O/T requirements; ParaCM-c1))
1. What shipments do I need to be aware? (Para CM-c2)
2. What shipment do I need to authorise? (Para CM-c2)
3. What info do I need?

What do I need to know as Competent Authority

• Information on Import export transit shipments
• Consignor/ consignee/ carriers
• Route (entry, route, final destination)
• Validity of certificate for packages

⇒ Para CM-c1, c2, c3, d1
What do I need to do as Competent Authority

Import Export Transit (Cont’d)

What inspection do I need to perform prior, during, after?

Actions by CA:

➡️ Para CM-c4
B2: Shipments

- Only certain shipments need approval by CA
  (para CM-d2)
- For the others CA need to adopt an inspection regime
  (when, frequency, how)
- Inspection guidance

B3: Packages

- Only certain packages need approval by CA
  (para CM-d2)
- For the others CA need to adopt an inspection regime
  (when, frequency, how)
- Inspection guidance
B2: Approval of shipments

What do I need to do as Competent Authority

What shipments need approval by CA?

⇒ Para CM-d2

What do I need to know as Competent Authority

SSR-6 paras 825-831 and other quoted paragraphs

1. Type of material,
2. Package certificate,
3. Routes
4. Etc..
What do I need to do as Competent Authority

What packages need approval by CA?

→ para CM-d1, d2

What do I need to know as Competent Authority

- Manufacture qualification
- Assessment by CA of PDSR
- Is CA qualified to verify PDSR?
- Who can help with verification of PDSR?
- Guidance on PDSR
I want to ensure all aspects of Transport of RAM are in place:

1. Implement a management plan (CA duties) ➔ C1

2. Implement a compliance regime
   1. Consignors/ consignees/ carriers ➔ C2
   2. Manufacturers/ Maintenance companies ➔ C3
   3. Adequacy of shipments/ packages/ vehicles ➔ C4

3. Emergency situations ➔ C5
What do I need to do as Competent Authority:

Develop Management Plan ➔ item 12 in “compliance assurance circle” of CM

What do I need to know as Competent Authority:

TS-G1.5 : “Audit and management system”
What do I need to do as Competent Authority

Consignees/holders

Provide licence/authorisation if required by the legislation in my country.

Actions by CA:
Provide form for licence/authorisation

What do I need to know as Competent Authority

No licence required:
But useful to know inventory, etc (Para CM-c1)

Licence required:
Info on

1. Licence registration (nb,..)?
2. Radiation protection programme
3. Management programme
4. Training of personnel
C2: Carriers

What do I need to do as Competent Authority

Carriers

Provide licence/authorisation if required by the legislation in my country.
(Not required by international legislation but is it required in my country?)

Actions by CA:
Provide form

What do I need to know as Competent Authority

- No licence. But useful to know inventory, etc (Para c1)

- Licence required: Info on
  1. Registration/licence:
  2. Are driver trained?
  3. Radiation protection programme

- Do I accept foreign licence/authorisation for transport?

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What do I need to know as Competent Authority

Who are the Manufacturers/Maintenance Companies?

Package not requiring CA approval ➔

Compliance assurance circle: items 2, 3, 4, 12

Package requiring CA approval ➔

Compliance assurance circle: items 1, 2, 3, 4

What do I need to do as Competent Authority

Self approval by industry:
1. Is company recognised as suitable?
2. Plan an inspection regime.

CA approval:
1. Is company recognised as suitable?
2. Is staff by CA properly qualified?
3. Follow PDSR
4. Plan an inspection regime
1: Shipment:
   1. Is authorisation available if required

2: Package: Is package suitable?
   1. UN number (see schedules), TI
   2. Certificates validity
   3. Labelling

3: Vehicle Conformity with DG requirements
   1. Placarding
   2. Packing (ICAO, IMO)
What do I need to do as Competent Authority

Documentation on Packages
(See Para CM-d2)

Not requiring CA approval

Requiring CA approval

Evidence of conformity

What do I need to know as Competent Authority

- Perform inspection on manufacturers, maintenance companies (Inspection activities)
- Check certificate conformity
- Check maintenance certificate
C4: adequacy of shipment-package-vehicle

What do I need to do as Competent Authority

Conformity of packages and transport
Check conformity of package
Monitor radiation-transport index (para CM-e1)
Contamination (para e2)
Labelling, placarding (para f)

What do I need to know as Competent Authority

(Para CM-e1, e2, f)
What do I need to do as Competent Authority

In case of accident emergency

Government action:
establish, with other entities, government procedures:
see para h

Verify consignor and carrier accident action plan (para i)

What do I need to know as Competent Authority
The compliance assurance circle – TS-G-1.5

1. Design assessment
2. Witnessing of testing
3. Witnessing of manufacture
4. Examination of maintenance and servicing
5. Monitoring and inspection of operations
6. Enforcement actions and investigation of incidents
7. Emergency planning and exercises
8. Regulatory review and maintenance of effective legal framework
9. Issuing of approvals
10. Training and distribution of information
11. Interdepartmental liaison / cooperation
12. Audits of management systems

Competent Authority compliance assurance programme