

# Hazardous Materials Transport Regulations (Synthetic)

## Section 1: General Provisions

### 1.1 Scope

These regulations apply to the transport of hazardous materials (HazMat) by road and rail.

### 1.2 Classification

Materials are classified into 9 classes.

- \* **Class 1:** Explosives
- \* **Class 7:** Radioactive Materials

## Section 2: Specific Requirements for Class 7 (Radioactive)

### 2.1 Ambient Conditions

- \* **Temperature:** For Type B(U) packages, the ambient temperature during transport must not exceed 38°C (100°F) unless the package allows for higher temperatures as specified in its Certificate of Compliance.
- \* **Pressure:** The containment system must retain integrity under a reduction of ambient pressure to 60 kPa (0.60 bar).

### 2.2 Separation Distances

Packages must be separated from occupied areas by at least:

- \* 2 meters for Transport Index (TI) < 1.0
- \* 4 meters for TI ≥ 1.0 and < 5.0

### 2.3 Contamination Limits

Non-fixed contamination on the external surfaces of any package shall not exceed:

- \* 4 Bq/cm<sup>2</sup> for beta and gamma emitters and low toxicity alpha emitters.

- \* 0.4 Bq/cm<sup>2</sup> for all other alpha emitters.

## **Section 3: Emergency Response**

### **3.1 Leaking Packages**

If a package is found to be leaking:

1. Isolate the area for at least 50 meters in all directions.
2. Notify the Radiation Safety Officer (RSO) immediately.
3. Do not touch the package without protective gear.

### **3.2 Fire**

In case of fire involving Class 7 materials:

- \* Use water spray to keep packages cool.
- \* Do not move damaged packages until assessed by an expert.