

RAM/CPR Radioactive Material Common Practices for Responders

STEP 1: IDENTIFY

If the only information you have is a RADIOACTIVE placard or label (see placard identification on back side) on the vehicle or package, continue using this guide or use NAERG Guide 163. If you have a four-digit UN number or product name, use the appropriate guide in the NAERG.

STEP 2: ISOLATE AND DENY ENTRY

- Isolate the scene by establishing an access control line 80 - 160 feet around the incident; only authorized emergency personnel are allowed inside this control zone.
- If there are victims who are able to walk or are uninjured, establish a holding area at the edge of the control zone and keep these people in one location.
- Treatment of any injuries should not be delayed because of concerns over radiation.

STEP 3: MAKE NOTIFICATIONS

- Make all required or necessary notifications of local emergency response agencies.
- Contact CO Department of Public Health & Environment at 1-877-518-5608.**
- If this is a military shipment contact the DOD at 800-851-8061.

STEP 4: PERFORM RESCUE

- Rescue entry should only be performed by Operations Trained responders who are equipped with proper PPE and/or follow local policies and procedures.
- If there is only minor damage to the vehicle and the victims do not require forcible extrication, **DO NOT WAIT TO RESCUE.** Rescue personnel must wear any available protective clothing - long-sleeved shirts, raincoats, respirators, gloves, etc. Immediately after exiting the rescue area this clothing should be removed and held in a location away from people.
- Rescue and first aid take priority over radiation concerns.**

STEP 5: OTHER EMERGENCY CONDITIONS

- FIRE**
 - Move containers from fire area if you can do so without risk.
 - Do not move damaged containers or packages.
 - SMALL FIRES:** Use dry chemical, CO₂, water spray, or regular foam
 - LARGE FIRES:** Use water fog/spray & dike to contain run-off.

IMPORTANT: Uranium Hexafluoride (UF₆) reacts violently with water - see NAERG Guide 166 or seek qualified assistance.

EVACUATION

- LARGE SPILL:** Consider evacuating downwind for at least 330 feet (100 meters)
- FIRE:** If large quantity in major fire consider evacuation in all directions of at least 1000 feet (300 meters.)

FIRST AID

- Medical considerations take priority over radiological concerns
- Treat injuries, but cleanse area around nose, mouth and injection sites.
- Use standard universal precautions for responders.

SPILLS OR LEAKS

- Do not touch damaged or leaking containers
- Cover liquid spills with sand, dry earth or other dry absorbent materials.
- Cover dry spills with tarp, plastic, or other cover to prevent dispersion by wind.



Colorado Department of Public Health and Environment

TIME - DISTANCE - SHIELDING

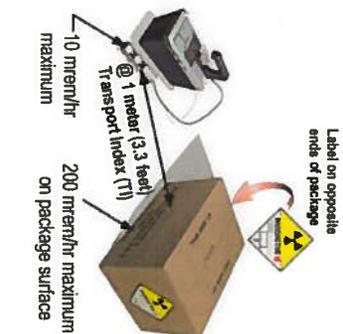
- Keep exposures to materials to the shortest time possible by staying outside the exclusion zone and planning all activities that require entry into the contamination zone - rotate personnel to keep individual exposures to a minimum.
- Keep as far away as practical from the source at all times; isolate contaminated materials and keep them in a secure area
- Use available shielding - vehicles, buildings, walls, etc; keep as much material between you and the source as possible

METERING

Agencies equipped with metering equipment should be well trained on the use and technique for metering. It is vital that you know the limitations of your meter. Some meters may not function properly in extremely high level radiation environments and may give false readings. The charts below show the maximum radiation levels for shipping packages based on the label or placard. Be prepared to report meter readings in units/time (mrem/hr) to the CPHE.

LABELS

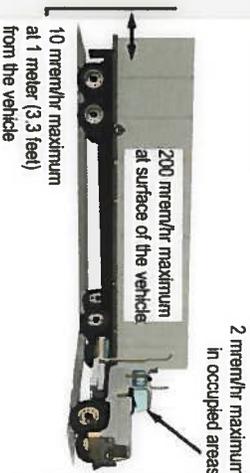
The labels to the right are designated White One and Yellow Two. These are non-lethal quantities of radioactive material. If you have monitoring equipment the maximum allowable levels are shown in the illustration. If your readings exceed these, you should assume the package may be damaged- report this information to the CPHE. Responders should never open a package to check for damage - wait for trained personnel.



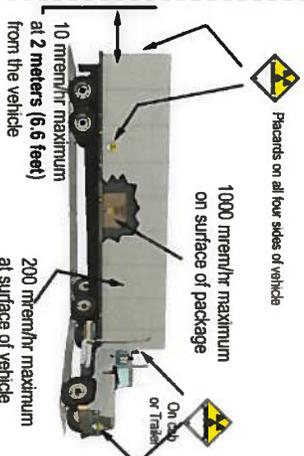
PLACARDS

Placards indicate the vehicle is carrying at least one package labeled Yellow III. See label information above.

If you have monitoring equipment the maximum allowable levels are shown in the illustrations. If your readings exceed these, you should assume the package may be broken - report this information to the CPHE.



NOTE: Some packages shipped as "exclusive use" may normally have surface readings as high as 1,000 mrem/hr at the surface of the undamaged package.



Highway Route Controlled Quantity

This placard has a 1" wide black square around it which indicates this vehicle is carrying a "Highway Route Controlled Quantity".

These are high level quantities and should be approached with caution

SECONDARY HAZARDS

Some radiological materials have hazardous properties other than being radioactive. These may include oxidizer, corrosive, toxic, or shipped in a gaseous state.

Don't forget look for other hazardous materials and scene hazards.

