

Converting OST PAR Cards Into Event Categorization and Classification

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Bechtel Nevada

Strengthening national security through engineering and operational excellence

OST PAR Cards

- Purpose
 - The PAR card set and matrix assist the IC to make initial determinations regarding the condition and state of cargo
 - Provide protective action recommendations for state, local, tribal authorities

OST PAR Cards

- Alpha, Bravo, Charlie, Delta, Echo
 - Indicates type of hazardous material shipment
- I, II, III
 - Indicates quantity of hazardous material
- Yellow/Red
 - Indicates severity of event

OST PAR Cards

Not to Scale



YELLOW

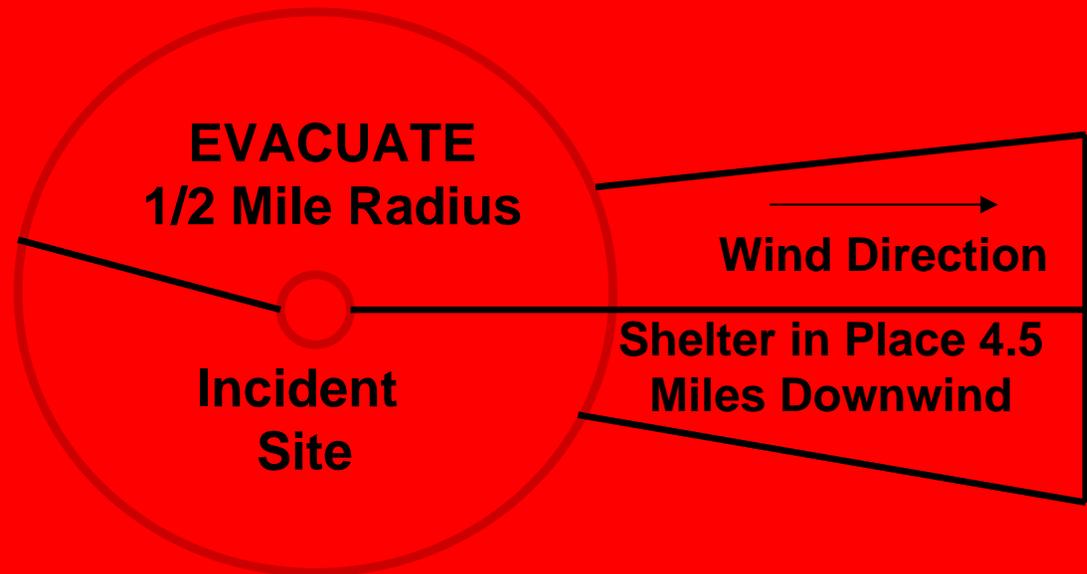
1. The United States Department of Energy recommends that state and local agencies **SHELTER IN PLACE** the public and nonessential emergency response personnel within 1/2 mile (800 meters) of the event scene based on a potential radioactive material release hazard.
2. For those sheltered in place, instruct personnel to close all windows, cover openings, and shut off heating and air conditioning or other ventilation systems that bring in air from outside. Stay inside, away from windows, and in basement or ground floor rooms if possible. Individuals should shelter in vehicles if other alternatives are not available.
3. Airborne particulate contamination and explosion are the primary hazard. Appropriate Protective actions should be taken by the personnel responsible for initiating or Conducting shelter-in-place/evacuation notifications to the public.
4. Restrict access to and movement in the sheltering zone as much as possible to avoid resuspending radioactive contamination that has settled on the ground. Essential movement in the area should be at slow speeds if possible.

OST PAR Cards

RED

1. The United States Department of **SHELTER IN PLACE** the public within 1/2 mile (800 meters) of the degree arc extending about **4.5 miles** downwind of a radioactive material release hazard.
2. For those sheltered in place, individuals should shut off heating and air conditioning from outside. Stay inside, away from windows, doors, and ventilation openings if possible. Individuals should shelter in place for the duration of the release.
3. Airborne particulate contamination. Protective actions should be taken to minimize exposure. Conducting shelter-in-place/evacuation.
4. Restrict access to and movement in the area to prevent resuspending radioactive contamination. Movement in the area should be restricted.

Not to Scale



**EVACUATE WITHIN A HALF-MILE RADIUS
ALSO, SHELTER IN PLACE IN A 60-DEGREE ARC EXTENDING FOUR
AND A HALF MILES DOWNWIND**

NTS Use of OST PAR Cards

- Assumptions:
 - Shipment involves material covered under current EPHA
 - SST/SGT is considered a “facility” with a facility boundary distance of 100-200 m
 - Method exists to quickly compare event location to nearest site boundary (e.g., map)

NTS Use of OST PAR Cards

- Precautions:
 - If barriers appear intact PAR card may not be issued – however, requirement for classification of operational emergency is based on POTENTIAL or ACTUAL release
 - Initial assessment by OST is available within 1 hour and may be altered as circumstances change
 - Information must be provided to local officials immediately following the occurrence of an accident and as soon as practical when involved in a hostile environment
 - Inaccuracies associated with method used to classify event (e.g., human calibrations)

NTS Use of OST PAR Cards

- OST PAR Card resources:
 - Convoy Commander
 - Transportation and Emergency Control Center
 - Emergency Operations Center
 - Consequence Assessment
 - Shipping/Trip Manifest

NTS Use of OST PAR Cards

- Take distance associated with PAR card and apply to basic definitions of Alert, SAE, GE
- Use worst case PAR card (e.g., red) if unsure of severity

NTS Use of OST PAR Cards

- Alpha/Bravo PAR Cards - no classifiable emergency
 - Alpha = Empty SST/SGT and/or escort vehicle(s) contain munitions
 - Bravo = Cargo contains HE without significant hazardous or radiological materials
- Charlie/Delta/Echo PAR Cards - classifiable emergency
 - Charlie I, II, III = Cargo consists of Weapons
 - Delta I, II, III = Cargo consists of non-weapon SNM
 - Echo I, II, III = Cargo contains tritium

NTS Use of OST PAR Cards

- 1-mile grid map of NTS with alpha/numeric, lat/long grid system
- PAR Card distance rings on transparency

Questions?



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