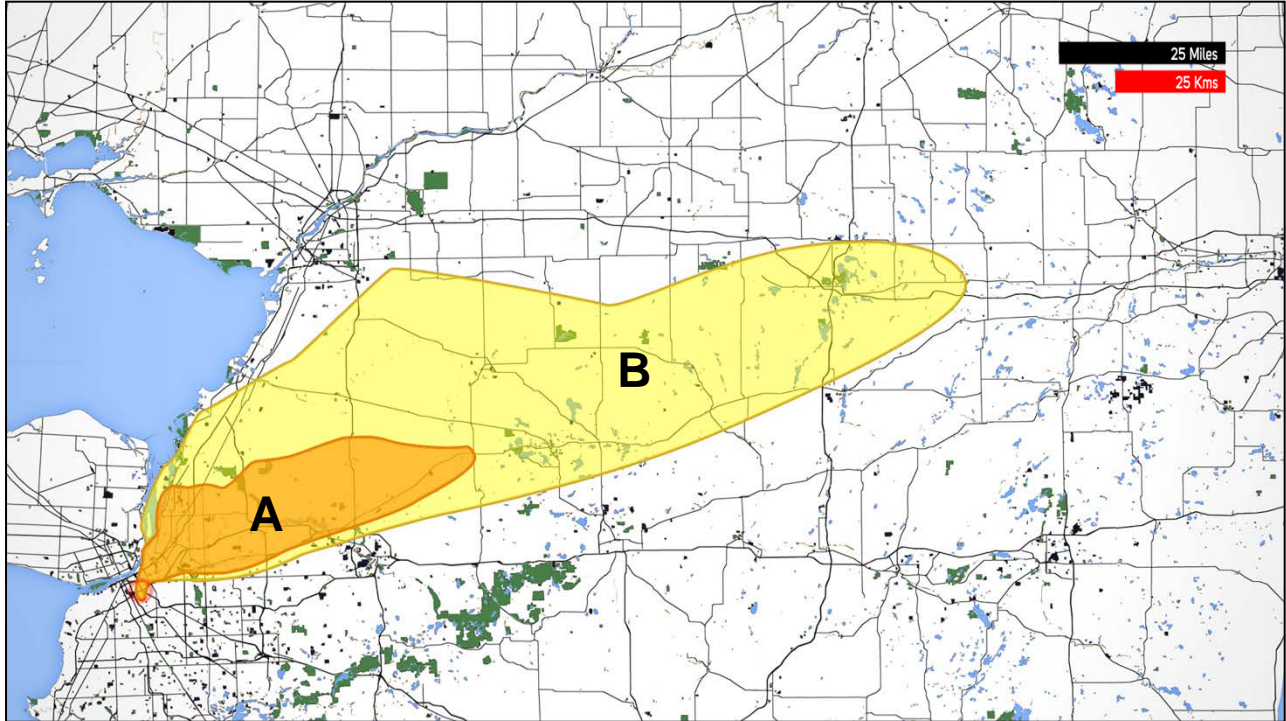


Predicted Evacuation and Sheltering Areas Based on EPA/DHS Guides (Presented in 6 time steps)



A **EVACUATION**
 Evacuation of entire population warranted, unless additional hazardous circumstances exist.
 Projected dose: >5 rem.
 Total Population: 984,000
 Area: 1,225 km² Extent: 78.6 km

B **SHELTERING OR EVACUATION**
 Sheltering or evacuation normally initiated.
 Projected dose: 1 to 5 rem.
 Total Population: 2,743,000
 Area: 6,634 km² Extent: 194 km

3 hours
 after detonation

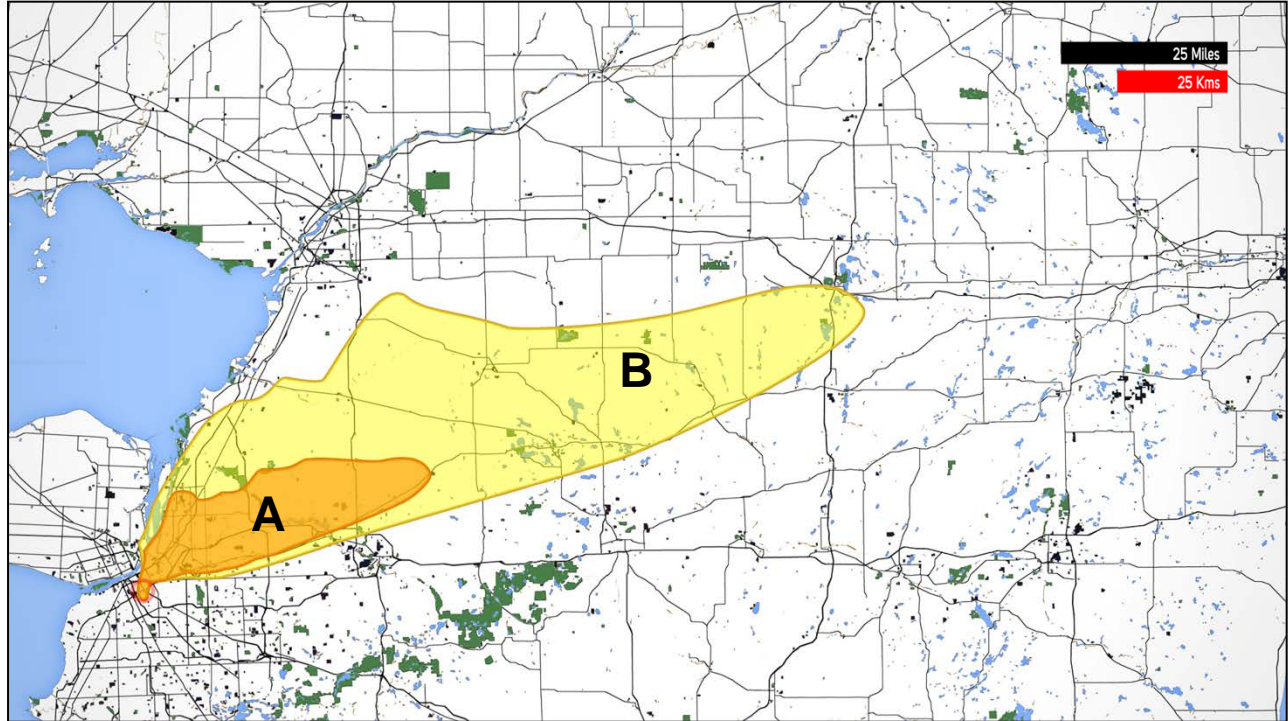
Assumptions:

- Assumes 10 kt detonation at 0 ft elevation.
- Areas shown are model predictions based on an estimated source term; confirm with measurements.
- Model assumes that no shelter or other protective actions have been taken to decrease exposure.

Notes:

- Best initial action is to seek adequate shelter.
- Sheltering followed by delayed evacuation is preferred unless evacuation can be completed before arrival of fallout.
- Relates only to long term risk of cancer. Not relevant to near-term injuries or fatalities due to fallout, which are of immediate concern (see Predicted Potential Fallout Casualties product).
- These protective actions are based only on dose that can be avoided. Predicted dose is calculated for that which is accumulated over the next four days following detonation. This is the dose that can be avoided by protective action completed by this time.
- Consequences of dose received earlier are not avoidable.

Predicted Evacuation and Sheltering Areas Based on EPA/DHS Guides (Presented in 6 time steps)



- A** **EVACUATION**
 Evacuation of entire population warranted, unless additional hazardous circumstances exist.
 Projected dose: >5 rem.
 Total Population: 924,000
 Area: 945 km² Extent: 68.3 km
- B** **SHELTERING OR EVACUATION**
 Sheltering or evacuation normally initiated.
 Projected dose: 1 to 5 rem.
 Total Population: 2,224,000
 Area: 4,925km² Extent: 171 km

6 hours
 after detonation

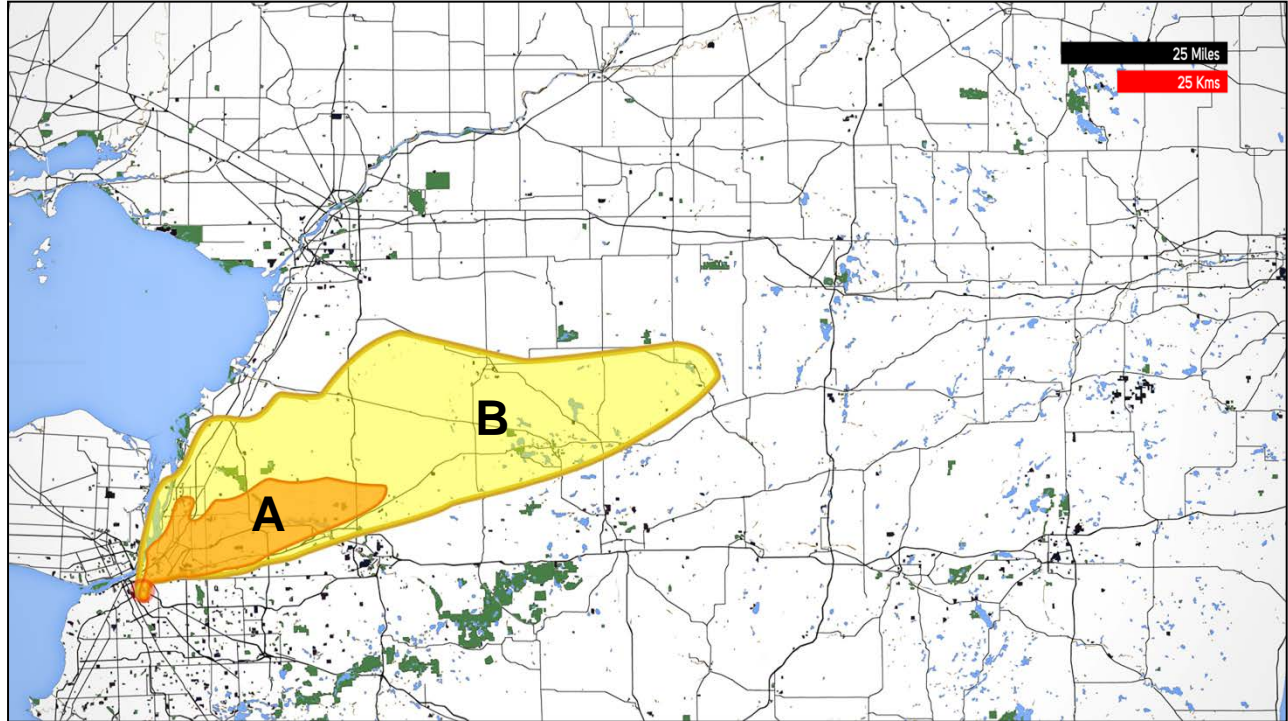
Assumptions:

- Assumes 10 kt detonation at 0 ft elevation.
- Areas shown are model predictions based on an estimated source term; confirm with measurements.
- Model assumes that no shelter or other protective actions have been taken to decrease exposure.

Notes:

- Best initial action is to seek adequate shelter.
- Sheltering followed by delayed evacuation is preferred unless evacuation can be completed before arrival of fallout.
- Relates only to long term risk of cancer. Not relevant to near-term injuries or fatalities due to fallout, which are of immediate concern (see Predicted Potential Fallout Casualties product).
- These protective actions are based only on dose that can be avoided. Predicted dose is calculated for that which is accumulated over the next four days following detonation. This is the dose that can be avoided by protective action completed by this time.
- Consequences of dose received earlier are not avoidable.

Predicted Evacuation and Sheltering Areas Based on EPA/DHS Guides (Presented in 6 time steps)



- A** **EVACUATION**
 Evacuation of entire population warranted, unless additional hazardous circumstances exist.
 Projected dose: >5 rem.
 Total Population: 721,000
 Area: 659 km² Extent: 57.7 km
- B** **SHELTERING OR EVACUATION**
 Sheltering or evacuation normally initiated.
 Projected dose: 1 to 5 rem.
 Total Population: 1,711,000
 Area: 3,553 km² Extent: 135 km

12 hours
 after detonation

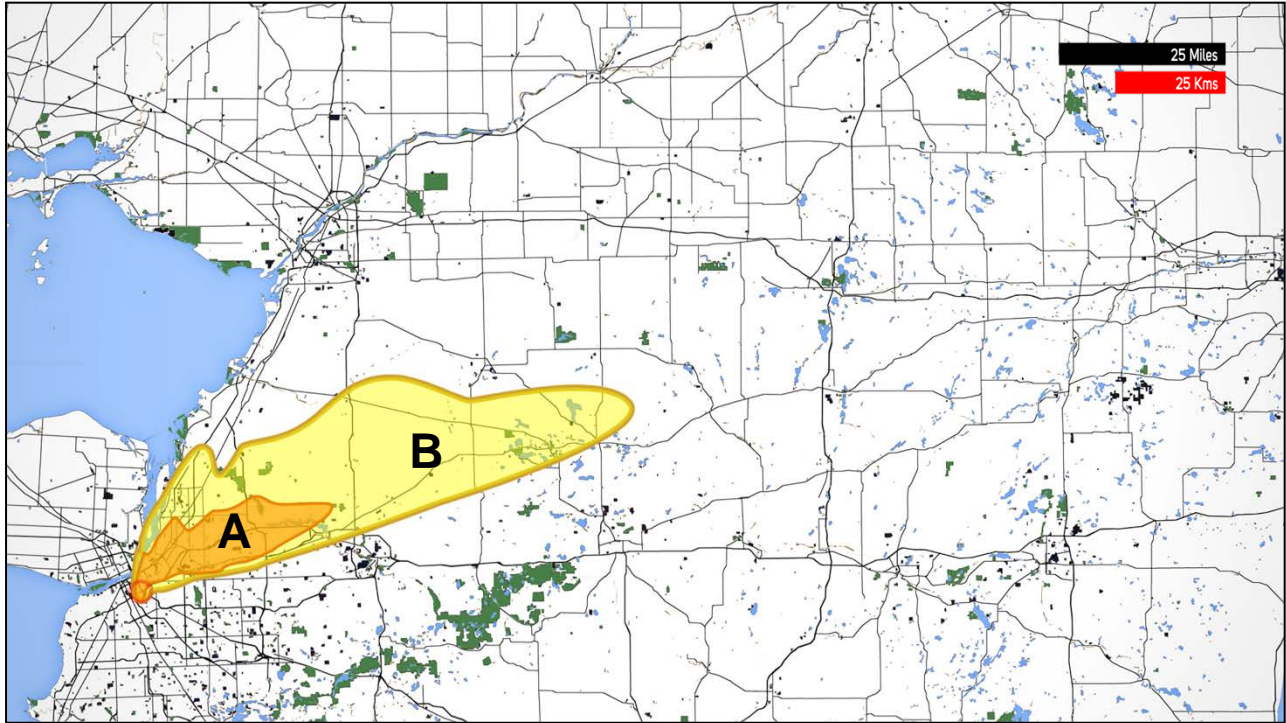
Assumptions:

- Assumes 10 kt detonation at 0 ft elevation.
- Areas shown are model predictions based on an estimated source term; confirm with measurements.
- Model assumes that no shelter or other protective actions have been taken to decrease exposure.

Notes:

- Best initial action is to seek adequate shelter.
- Sheltering followed by delayed evacuation is preferred unless evacuation can be completed before arrival of fallout.
- Relates only to long term risk of cancer. Not relevant to near-term injuries or fatalities due to fallout, which are of immediate concern (see Predicted Potential Fallout Casualties product).
- These protective actions are based only on dose that can be avoided. Predicted dose is calculated for that which is accumulated over the next four days following detonation. This is the dose that can be avoided by protective action completed by this time.
- Consequences of dose received earlier are not avoidable.

Predicted Evacuation and Sheltering Areas Based on EPA/DHS Guides (Presented in 6 time steps)



A **EVACUATION**
 Evacuation of entire population warranted, unless additional hazardous circumstances exist.
 Projected dose: >5 rem.
 Total Population: 532,000
 Area: 391 km² Extent: 46.5 km

B **SHELTERING OR EVACUATION**
 Sheltering or evacuation normally initiated.
 Projected dose: 1 to 5 rem.
 Total Population: 1,259,000
 Area: 2,315 km² Extent: 115 km

24 hours
 after detonation

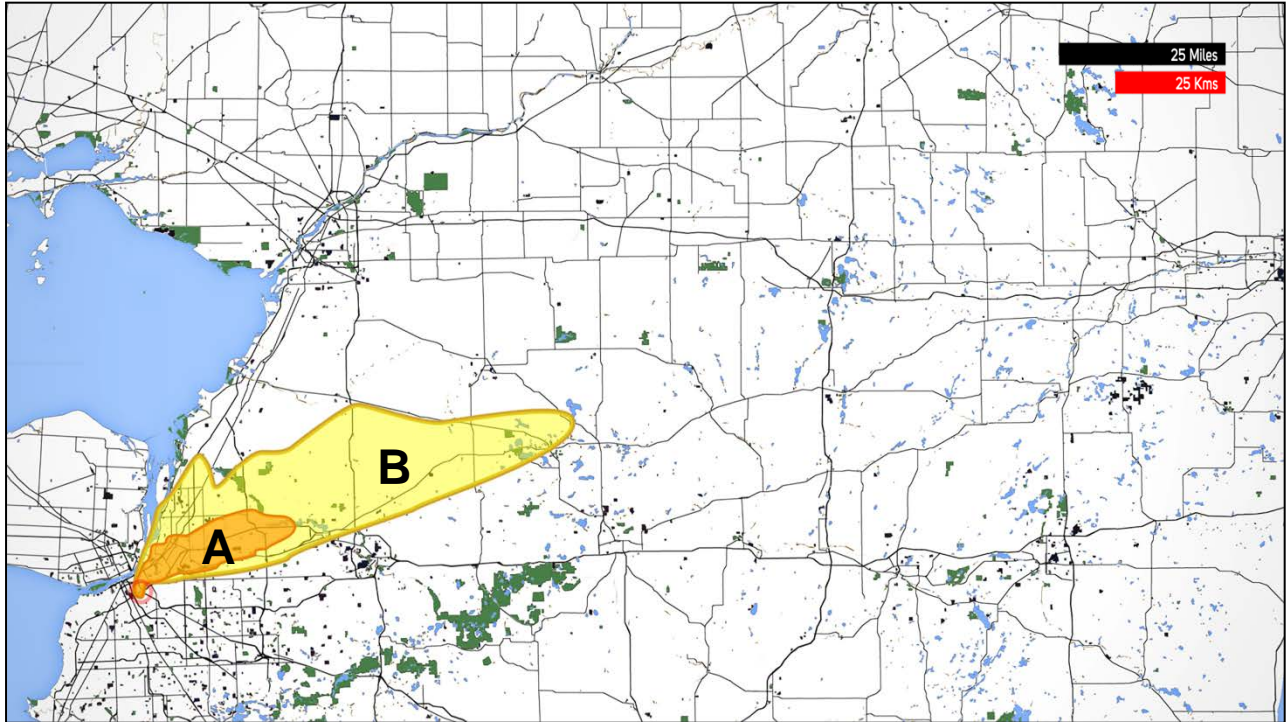
Assumptions:

- Assumes 10 kt detonation at 0 ft elevation.
- Areas shown are model predictions based on an estimated source term; confirm with measurements.
- Model assumes that no shelter or other protective actions have been taken to decrease exposure.

Notes:

- Best initial action is to seek adequate shelter.
- Sheltering followed by delayed evacuation is preferred unless evacuation can be completed before arrival of fallout.
- Relates only to long term risk of cancer. Not relevant to near-term injuries or fatalities due to fallout, which are of immediate concern (see Predicted Potential Fallout Casualties product).
- These protective actions are based only on dose that can be avoided. Predicted dose is calculated for that which is accumulated over the next four days following detonation. This is the dose that can be avoided by protective action completed by this time.
- Consequences of dose received earlier are not avoidable.

Predicted Evacuation and Sheltering Areas Based on EPA/DHS Guides (Presented in 6 time steps)



A **EVACUATION**
 Evacuation of entire population warranted, unless additional hazardous circumstances exist.
 Projected dose: >5 rem.
 Total Population: 456,000
 Area: 275 km² Extent: 36.8 km

B **SHELTERING OR EVACUATION**
 Sheltering or evacuation normally initiated.
 Projected dose: 1 to 5 rem.
 Total Population: 1,131,000
 Area: 1,756 km² Extent: 102 km

36 hours
 after detonation

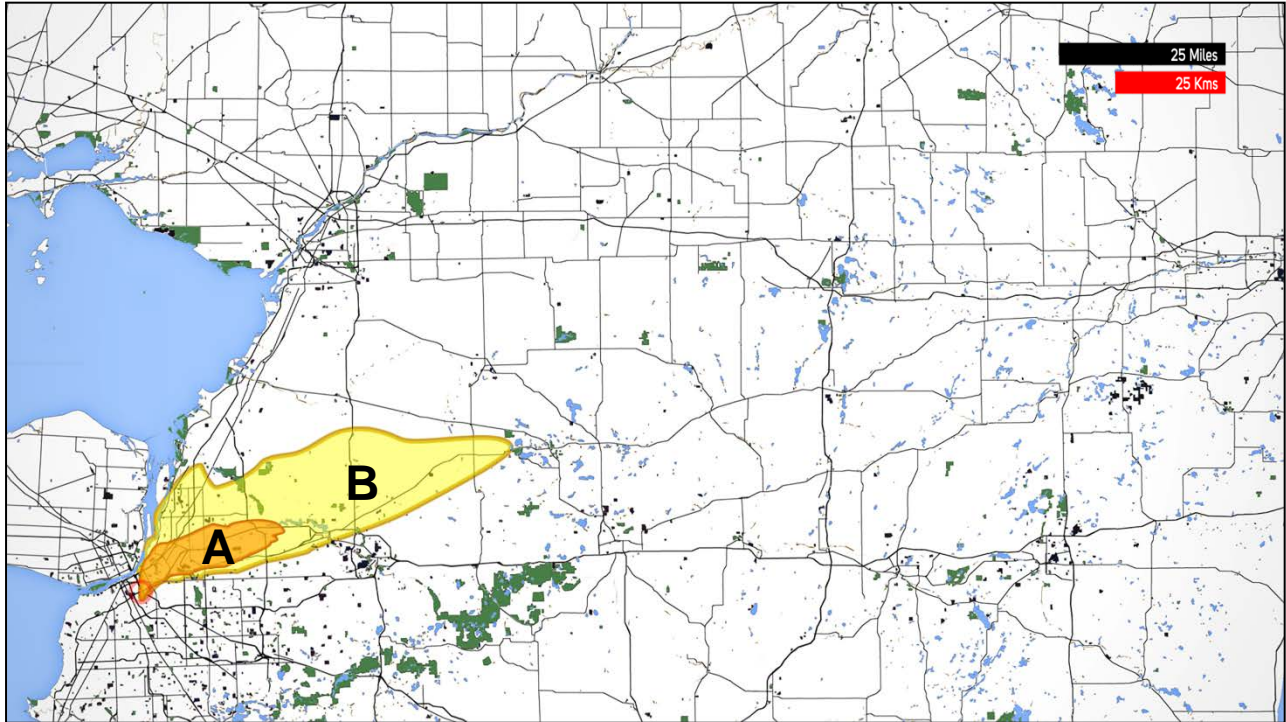
Assumptions:

- Assumes 10 kt detonation at 0 ft elevation.
- Areas shown are model predictions based on an estimated source term; confirm with measurements.
- Model assumes that no shelter or other protective actions have been taken to decrease exposure.

Notes:

- Best initial action is to seek adequate shelter.
- Sheltering followed by delayed evacuation is preferred unless evacuation can be completed before arrival of fallout.
- Relates only to long term risk of cancer. Not relevant to near-term injuries or fatalities due to fallout, which are of immediate concern (see Predicted Potential Fallout Casualties product).
- These protective actions are based only on dose that can be avoided. Predicted dose is calculated for that which is accumulated over the next four days following detonation. This is the dose that can be avoided by protective action completed by this time.
- Consequences of dose received earlier are not avoidable.

Predicted Evacuation and Sheltering Areas Based on EPA/DHS Guides (Presented in 6 time steps)



A **EVACUATION**
 Evacuation of entire population warranted, unless additional hazardous circumstances exist.
 Projected dose: >5 rem.
 Total Population: 414,000
 Area: 223 km² Extent: 34.2 km

B **SHELTERING OR EVACUATION**
 Sheltering or evacuation normally initiated.
 Projected dose: 1 to 5 rem.
 Total Population: 1,011,000
 Area: 1,349 km² Extent: 86.7 km

48 hours
 after detonation

Assumptions:

- Assumes 10 kt detonation at 0 ft elevation.
- Areas shown are model predictions based on an estimated source term; confirm with measurements.
- Model assumes that no shelter or other protective actions have been taken to decrease exposure.

Notes:

- Best initial action is to seek adequate shelter.
- Sheltering followed by delayed evacuation is preferred unless evacuation can be completed before arrival of fallout.
- Relates only to long term risk of cancer. Not relevant to near-term injuries or fatalities due to fallout, which are of immediate concern (see Predicted Potential Fallout Casualties product).
- These protective actions are based only on dose that can be avoided. Predicted dose is calculated for that which is accumulated over the next four days following detonation. This is the dose that can be avoided by protective action completed by this time.
- Consequences of dose received earlier are not avoidable.

Text Description for Images

Predicted Evacuation and Sheltering Areas Based on EPA/DHS Guides (Presented in 6 time steps)

Six maps showing Predicted Evacuation and Sheltering Areas Based on EPA/DHS Guides 3 hours, 6 hours, 12 hours, 24 hours, 36 hours, and 48 hours after detonation.

The maps are applicable to both IND and RDD incidents, and is based on the assumed magnitude of the explosion and radioactive source term and the predicted or observed meteorological conditions. It delineates areas in which doses to members of the public due to radioactive materials exceed EPA/DHS recommendations for local and state officials for evacuation (1-5 rem (10-50 mSv)) or sheltering. In general, evacuation should be the preferred protective measure unless local conditions make evacuation unsafe.