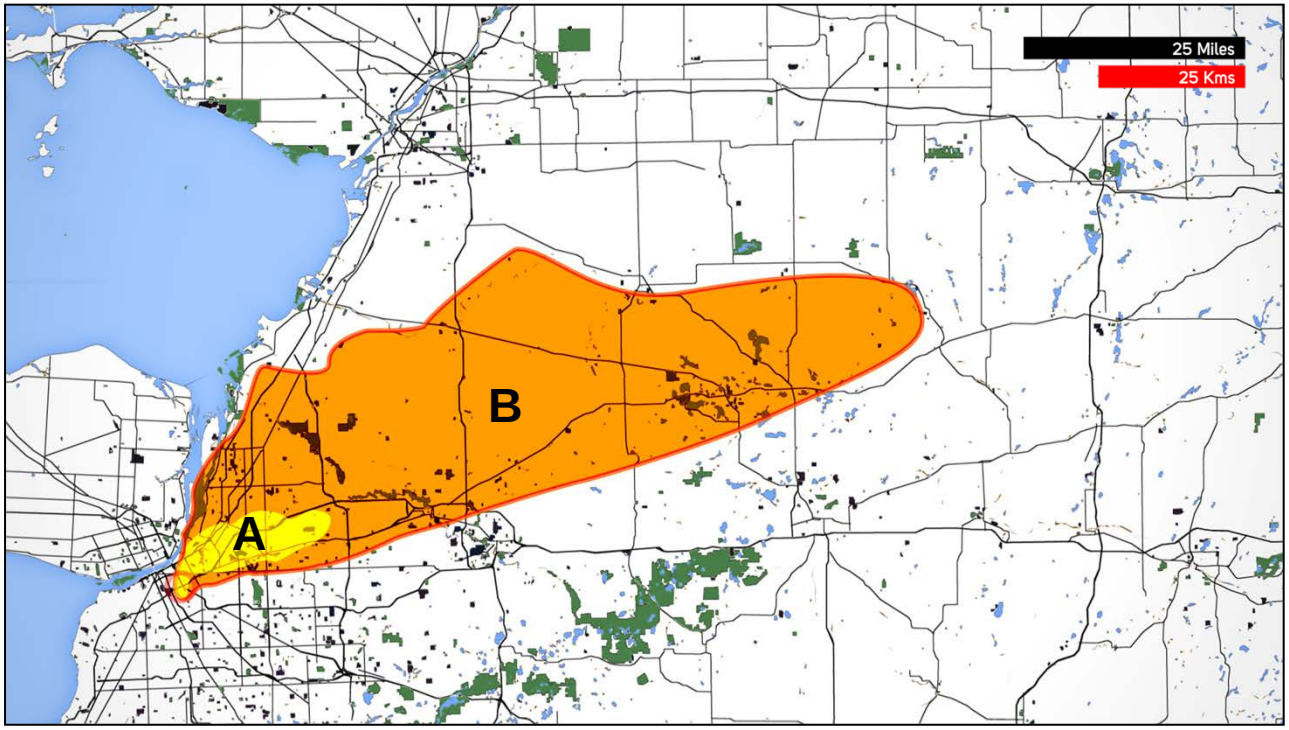
IND Detonation

Predicted Relocation Areas Based on EPA/DHS Guides



A

RELOCATION (for at least 2 years)

Relocation warranted due to dose expected to be received during the 1st year (exceeds 0.5 rem).

Projected dose: >0.5 rem (5 mSv)

Total population: 142,000

Area: 42.0 km^2 Extent: 17.1 km

B

RELOCATION (for at least 1 year)

Relocation warranted due to dose expected to be received during the 1st year after detonation (exceeds 2 rem).

Projected dose: >2 rem (20 mSv).

Total population: 1,696,000

Area: 3,369 km^2 Extent: 133 km

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:

- **Relocation addresses only increased cancer risk due to long term exposures.**
- **Predicted dose assumes unsheltered individual with no protective actions or mitigation.**
- **First-Year zone decreases in size with time, because dose received in the past and before the relocation is not included. Protective actions are based only on dose that can be avoided.**
- **Individuals may have received a much higher total dose if present since detonation time.**

Text Description for Image

Predicted Relocation Areas Based on EPA/DHS Guides

This map is applicable to both IND and RDD incidents. Initially, it will be based on the assumed magnitude of the explosion and radioactive source term and the predicted or observed meteorological conditions. It delineates areas where radiation doses to members of the public continuously occupying these areas would exceed EPA/DHS recommendations to local and state officials for relocation (2 rem (20 mSv) in the first year, 0.5 rem (5 mSv) during any year after the first year). Decision-makers will use this map days to weeks into the response to determine areas where members of the public should be relocated or where remedial actions should be undertaken. This map may also be used to determine areas where it is safe for people who evacuated during the early stages of the incident to return to their homes and businesses.