



Using worst case scenarios
Case Study 2



Background information

- Chemical plant
- 50 tonnes of chlorine
 - 2 tanks x 15 tonnes
 - 1 production line containing ~20 tonnes
- 2 km from the border



Questions

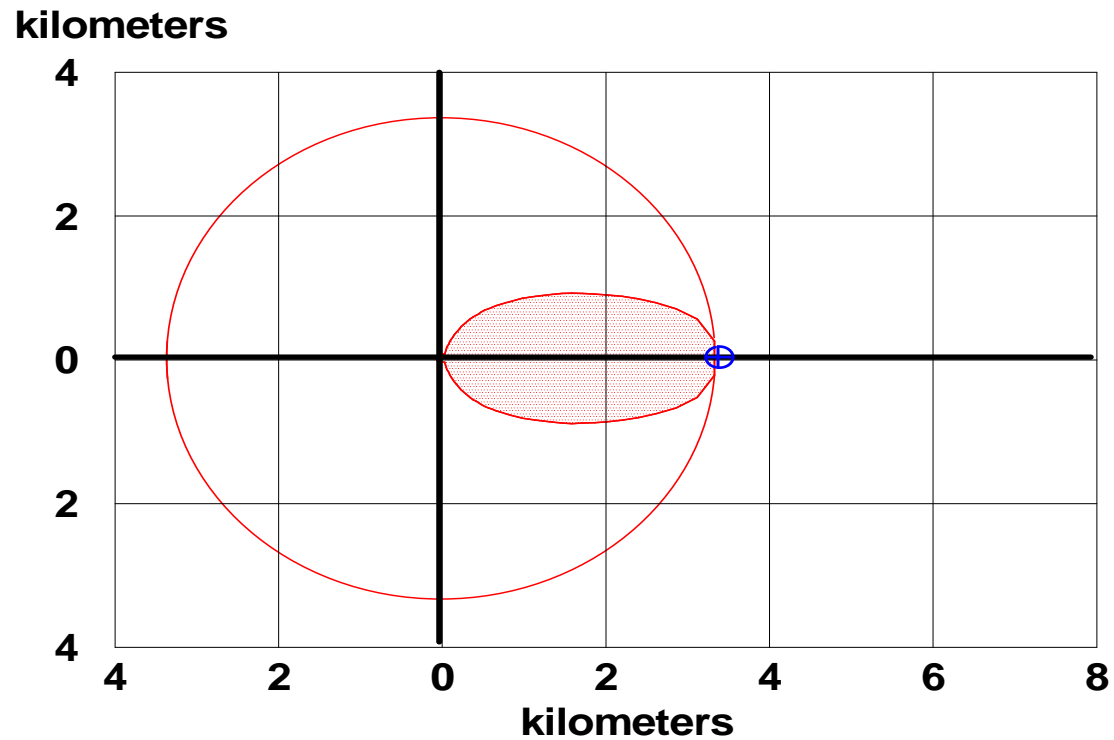
- What do you consider worst case scenario
 - (low probability-high consequences outcomes with the maximum negative consequences)
- What is the quantity of the chemical involved
- Do you consider it definitely incapable of transboundary accident



Modeling results

- Standard distances table ~ 1200 m
- RMP*Comp – over 5 km
- ALOHA – 3,3 km

ALOHA modelling



-  ≥ 50 ppm
-  Confidence Lines



Developing worst case scenario

- Select a scenario
 - release of the largest amount in a single largest vessel – 20 tonnes of chlorine
 - Consider short release (10 ~ 15 mins)
- Determine the distance to the endpoint
 - Using standard distances table
 - Using modelling software
 - Aloha
 - RMP Comp
- Determine transboundary potential
 - 2 km from the border
 - Consequences across the border cannot be excluded

The establishment is a hazardous activity