

RPE training EPR

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Training developed for the Radiation Protection Expert (RPE) for Emergency Preparedness and Response

- **Introduction**
- **Course topics**
- **Course characteristics**
- **Evaluation**

Companies in the Petten dunes

(> 1.500 employees)



NRG



RPE

- EU Bss → role in EPR
- Art. 82, 2 (k) “preparedness and response in emergency exposure situations”
- Dutch decree: competences
- “.... In case of non compliance, incidents and other unexpected events relating to radiation protection the RPE can initiate to control the situation and to solve the problem and measures to prevent recurrence.”
- NRG: 24/7 emergency on call service

Main course objectives

- **Know the system of EPR on a national, local and institute level**
- **Perform the role of the RPE in the EPR-team**
- **Communicate with the competent authorities by means of an adequate situation report**



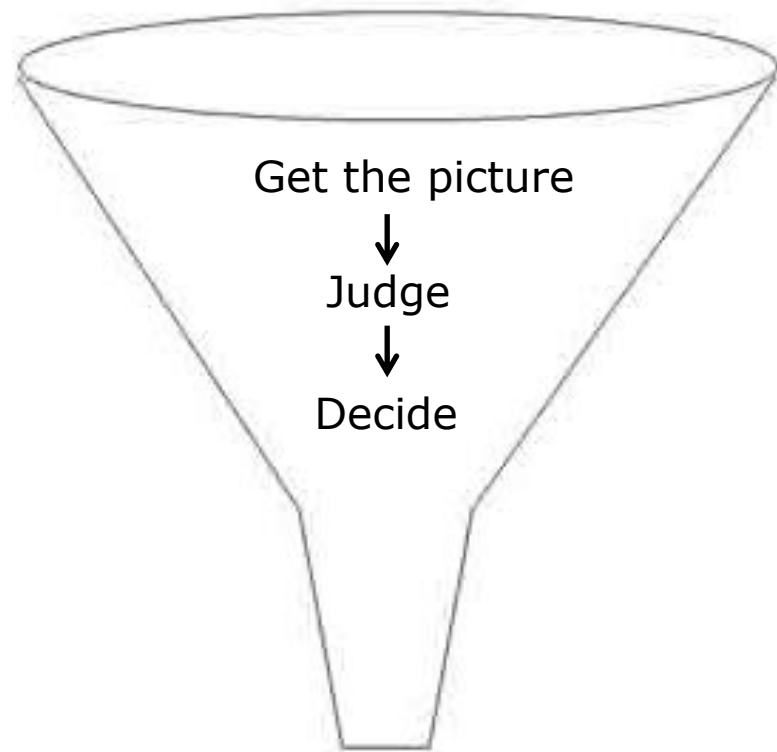
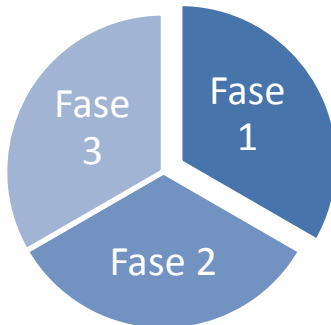
Course topics

- **National Emergency Response Plan**
- **Roles and responsibilities – NRG / Local / National**
- **Methodology – crises management**
- **Plume calculations - WinREM**
- **Situation Report - SitRap**
- **Operational Limits and Conditions / INES**
- **Plant knowledge**
 - theoretical: SR
 - practical: ‘guided tour’



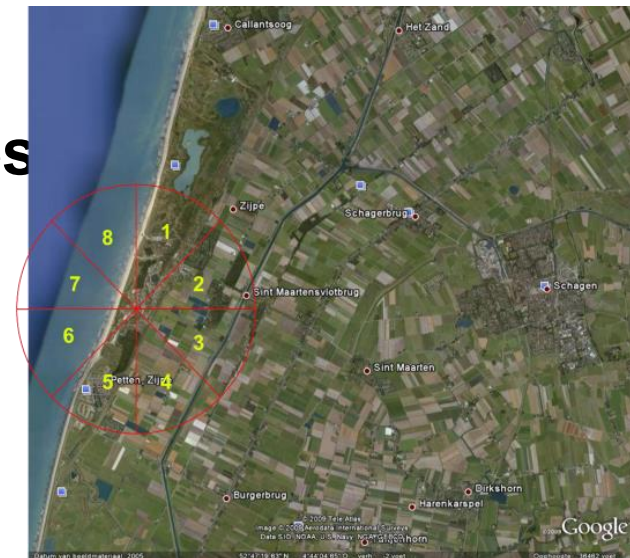
Crisis management

- Meeting cycle – phase 2



Situation Report - SitRap

- **Plant status**
 - Emergency standby
 - Plant emergency
 - Site emergency
 - Off-site emergency
- **Scenario prediction (pre emission) – 18**
 - Source term
 - Weather conditions
- **Proposed intervention measures**
- **Actual data (post emission)**



Standard scenarios

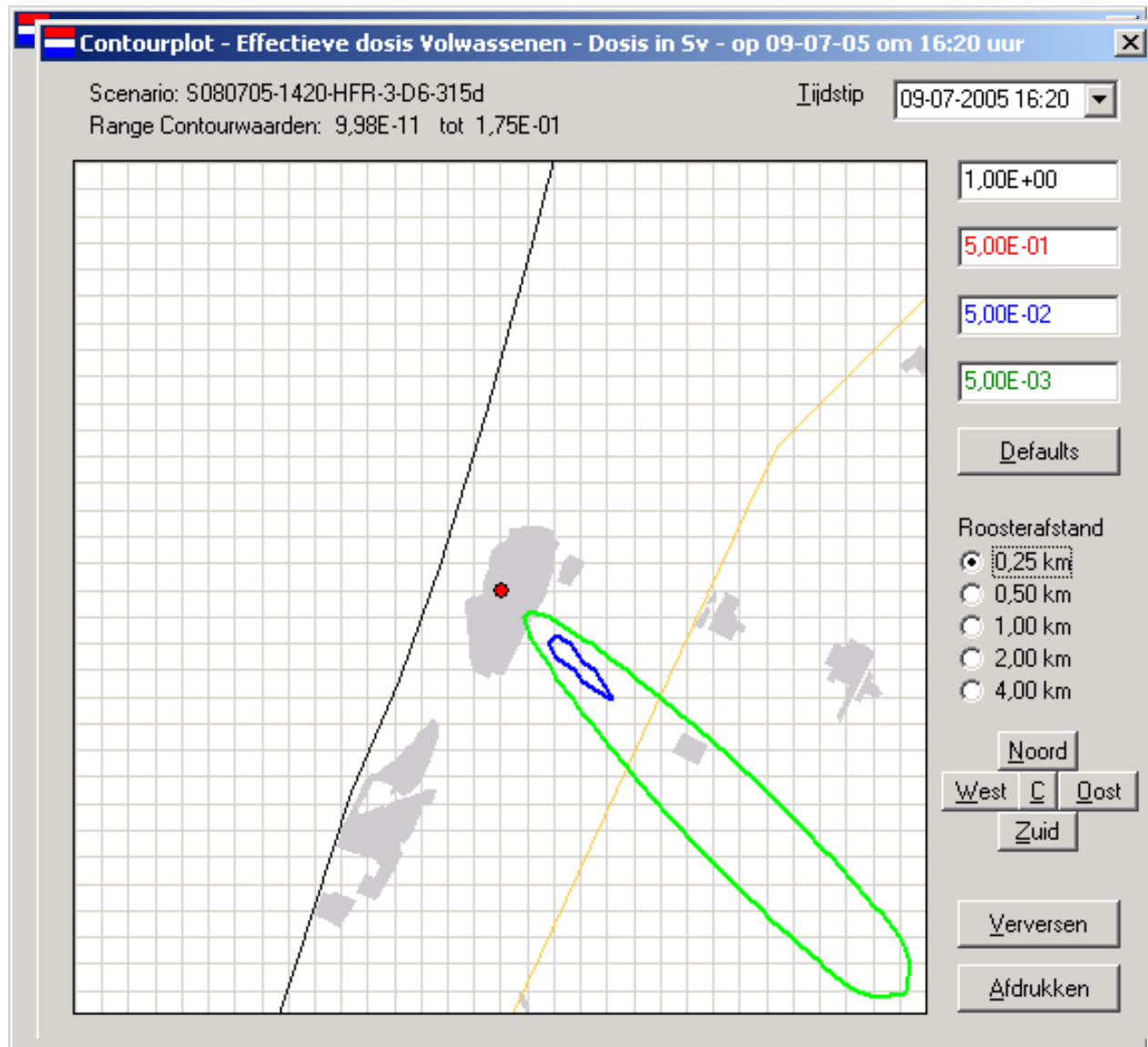
Tabel F.2 Adviesmaatregelen bij geschatte dosis weertype D5

Bronterm maatscenario	Maximale afstand tot grens van het gebied waarbinnen maatregelen worden toegepast ^{b)} of maximale dosis	Ongevalsklasse
DWT-1	Geén maatregelen, 0,03 mSv; besmet gebied tot 150 m	Plant Emergency
DWT-2	Geén directe maatregelen, besmet gebied tot 3 km	Site Emergency
HCL_RL-1	Geén directe maatregelen, graasverbod tot 2,1 km	Site Emergency
HCL_RL-2	Directe maatregelen tot 0,5 km (5 mSv Effectief)	Off-site Emergency
HCL_RL-3	Directe maatregelen tot 1,5 km (5 mSv Effectief)	Off-site Emergency
HCL_RL-4	Directe maatregelen tot 16 km (5 mSv Effectief)	Off-site Emergency
HFR-1	Geén maatregelen, 0,002 mSv; geen besmetting	Plant Emergency
HFR-2	Directe maatregelen tot 1,5 km (50 mSv Schildklier)	Off-site Emergency
HFR-3	Directe maatregelen tot 3,4 km (50 mSv Schildklier)	Off-site Emergency
HFR-4	Directe maatregelen tot 4,8 km (50 mSv Schildklier)	Off-site Emergency
LFR-1	Geén directe maatregelen, graasverbod tot 8 km	Site Emergency
LFR-2	Directe maatregelen tot 3,4 km (5 mSv Effectief)	Off-site Emergency
HCL-MPF-1	Geén directe maatregelen, graasverbod tot 9 km	Site Emergency
HCL_MPF-2	Directe maatregelen tot 0,2 km (5 mSv Effectief)	Off-site Emergency
HCL_MPF-3	Directe maatregelen tot 3,0 km (50 mSv Schildklier)	Off-site Emergency
HCL_MPF-4	Directe maatregelen tot 19 km (5 mSv Effectief)	Off-site Emergency
WSF-1	Directe maatregelen tot 0,3 km (5 mSv Effectief)	Off-site Emergency
WSF-2	Directe maatregelen tot 0,6 km (5 mSv Effectief)	Off-site Emergency

WinREM

Contour plot

- large scale
- smaller scale



Course characteristics

- **Contact hours: 24 h**
- **Self study: 6+ h**
- **Installation knowledge / tour: 6x 1 – 2 hours**
- **Course material: Hand outs and available reports and literature (EPR-manual, standaard scenarios, INES manual, WinREM manual)**
- **5 participants**



Evaluation

- **Positive:**
 - The knowledge gained gives more confidence
 - Role in emergency response team can be performed better now
- **To be improved:**
 - Need for follow up and 'practical' experience
 - Besides drills dedicated RPE refresher training needed





***Thank you
for your
attention!***