



Authority for Nuclear Safety and  
Radiation Protection

## Safety and Security: An equal world apart?

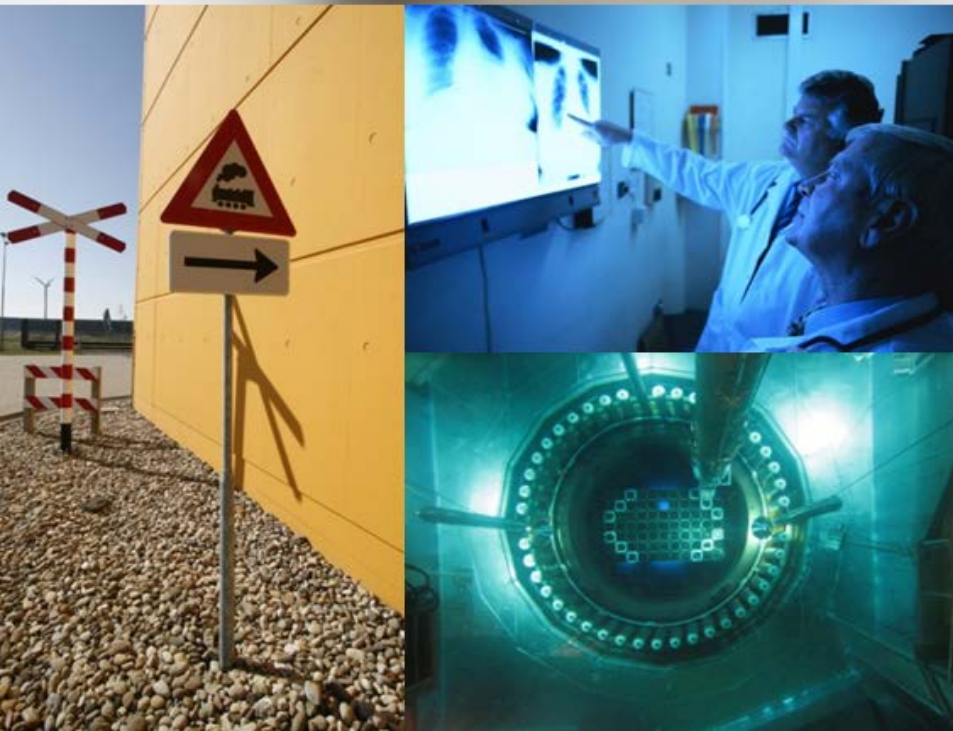
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## Central theme presentation

- What is the role/responsibilities of the **operator** during a safety incident?
- What is the role/responsibilities of the **regulator** during a safety incident?



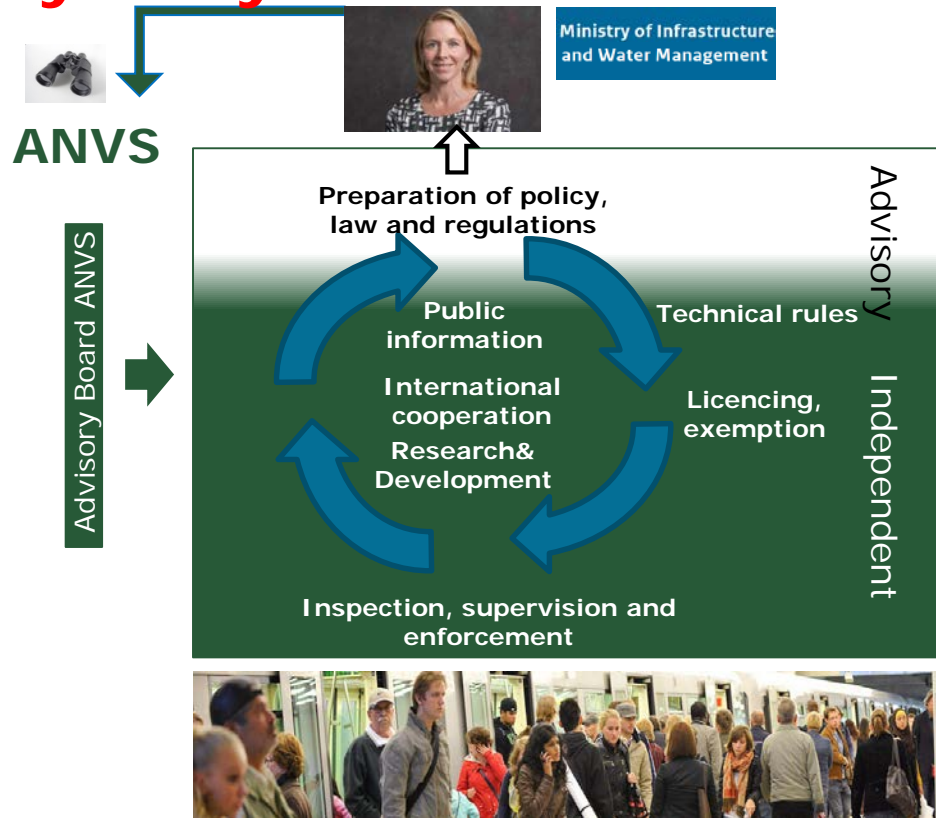
## Outline presentation

- What is the ANVS, the nuclear regulator in the Netherlands?
- Nuclear sector in the Netherlands
- Approach in the Netherlands
- Difference in development Safety – Security
- Policy framework in the Netherlands
- Responsibilities Operator – Regulator
- Position of safety during a security incident vv
- Points of attention



# Regulatory body ANVS

- Nuclear safety
- Radiation protection (public & environment)
- Emergency preparedness and response
- Transport
- Security
- Safeguards
- Spent fuel, radioactive waste and decommissioning
- Financial warranty decommissioning





## ANVS's powers

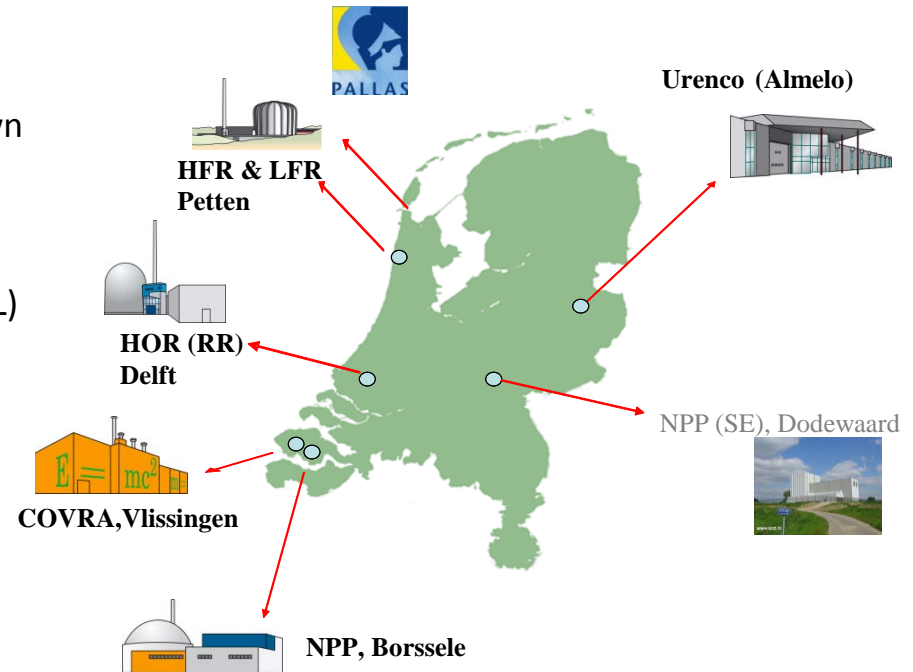
- Preparation policy, legislation and regulations
- Issues licences, exemptions, etc.
- Inspection, supervision and enforcement
- Information
- International cooperation
- Research
- Knowledge support for other national bodies
  
- ANVS is a part of the Ministry of Infrastructure and Water Management, but it exercises its powers independently.
- Safety: 50, Security: 7, Radiation Protection: 40, Management: 5, Support: 25.





# Intro: Nuclear Installations in the Netherlands

- NPP Borssele (2 loop PWR, 510 MW<sub>e</sub>)
- NPP Dodewaard shutdown (BWR, safe enclosure)
- Research Reactor HFR Petten (50 MW<sub>th</sub>)
- Research Reactor LFR Petten (30 kW<sub>th</sub>), shutdown
- University Reactor HOR Delft (3 MW<sub>th</sub>)
- Ultra Centrifuge Enrichment Plant URENCO (UNL)
- Interim Waste Storage Facility (COVRA)
- PALLAS Research Reactor (in development)





## Approach in the Netherlands

- High level requirements in legislation combined with (standard) licenses based on IAEA-requirements.
- Security approach is goal orientated/performance based.
- Flexibility and continuous improvement.
- Close cooperation/dialogue Government-Industry (e.g. CEO-, PSM-meetings) on policy matters/issues, with respect for everyone's responsibility.
- Joint safety and security exercises (Alert 2016, Christophorus 2017)



## Difference in development Safety - Security

- 1) History and various development (long time) processes safety – security.
- 2) Organizational differences in company.
- 3) Probabilistic – deterministic approach.
- 4) Police vs. civil response.





## Policy framework in the Netherlands

- Licensee must comply with both safety and security legislation.
- Safety and security laws and regulations are equivalent.
- In case of conflicting interests, the licensee must make a choice:
  - prioritize the safety measures and compensate with security measures
  - or
  - prioritize the security measures and compensate with safety measures.
- Licensee must motivate the decision towards the nuclear regulator.
- The regulator will test the licensee's decision against the law and regulations.



## Responsibilities operator

- licensee is inalienable and has overall responsibility for the design, content and implementation of safety and security measures on site.
- Licensee is responsible for the proper functioning and adequate connection of the internal and external (safety and security) measures (e.g. perform an annual effectiveness test).
- Licensee must perform a safety-security exercise or audit each year.
- Licensee must demonstrate on the basis of the statutory regulations that the interests of safety and security within the organization are well secured.
- In case of organizational changes, licensee must demonstrate that the safety and security interests are fully retained.



## Responsibilities regulator

- Regulator checks whether the safety and security measures of the licensee comply with national laws and regulations.
- Regulator is responsible for adequate communication and information provision towards the general public as well as the Minister of Infrastructure and Water Management.
- Regulator considers itself as "system responsible". The regulator promotes the adequate deployment of all private and public stakeholders in the nuclear domain, including the availability of sufficient resources.
- The regulator must promote circumstances in such a way that the public and private stakeholders can reduce the safety and security risks as much as possible.



## Position of security during a safety incident

In the Netherlands in case of a **safety incident**:

- Central leadership is and will remain with the safety response partners.
- Safety partners must make sure that no security aspects (e.g. insider) are involved. Otherwise, the incident will be treated as a security incident.
- Security response partners, including the security unit of the ANVS, has a **supportive** and **advisory** role during a safety incident.
- **Left of Bang vs Right of Bang**: change of responsibilities among stakeholders in crisis structure.



## Position of safety during a security incident

In the Netherlands in case of a **security incident**:

- Central leadership is and will remain with the security response partners (e.g. public prosecutor/mayor/head of police).
- Security unit of the ANVS has a **supportive** and **advisory** role within the framework of the security actions.
- Safety response partners are responsible for radiation-reducing measures within the framework of the security-response actions.
- Special Forces teams are familiar with the lay-out of nuclear facilities and train regularly in and near the facility.
- Special Forces teams are trained how to act in case of a CBRN threat.



# Responsibilities in case of a safety incident

## Position operator:

- Informing the local authorities and the regulator at once (e.g. fire brigade, police, other environmental and response services).
- Checking whether security aspects are involved, in cooperation with police services
- Activating the emergency plan immediately

## Position police services:

- To investigate whether the incident is security-related (forensics)
- Sealing off the routes/roads area to/from safe area – incident area

## Position regulator and other response services:

- Checking whether the operator follows the correct procedure
- Checking emission levels
- Advising local and national authorities about possible follow-up actions
- Informing international authorities



## Points of attention

- Safety and security are equally important.
- The security and safety interests must be properly secured within the organization, e.g. responsibilities at management level.
- In case of security incidents:
  - security partners have the initiative.
  - safety partners are following and supporting.
- In case of safety incidents:
  - safety partners have the initiative.
  - security partners are following and supporting.
- Last but not least: Joint interdisciplinary exercises are essential!



- Thank you for your attention!

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