



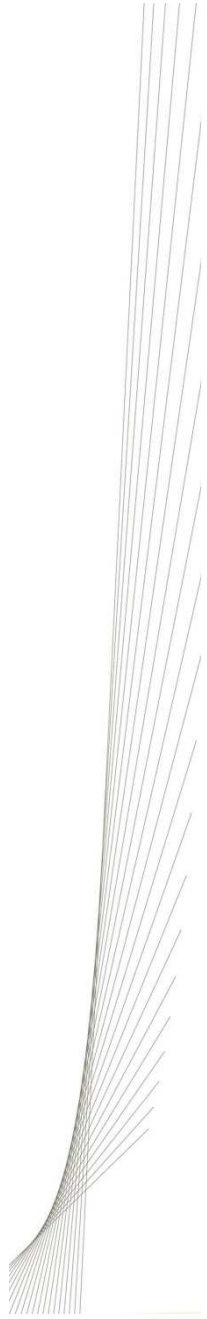
# Security of Nuclear facilities in Belgium in a period of increased threat

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# Content of this presentation

- Evolution of securing nuclear installations, materials and transport
- Insider Threat at NPPs
  - Ways to analyse the Insider Threat
  - Potential Measures
  - Major Concern
- Recent security measures in response to the increased terrorist threat after the terrorist attacks in Paris and Brussels



# What is not the goal of this presentation?

- We do not analyse the incident in Doel 4.
- Due to the confidentiality of the investigation by the Federal Public Prosecutor's Office, not all information may be available to everyone.
- We will not discuss all the additional recent measures that have been taken (confidentiality)
- Open for bilateral meetings



## Insider Threat

Sometimes the greatest threat to our organization may be someone you are working with.

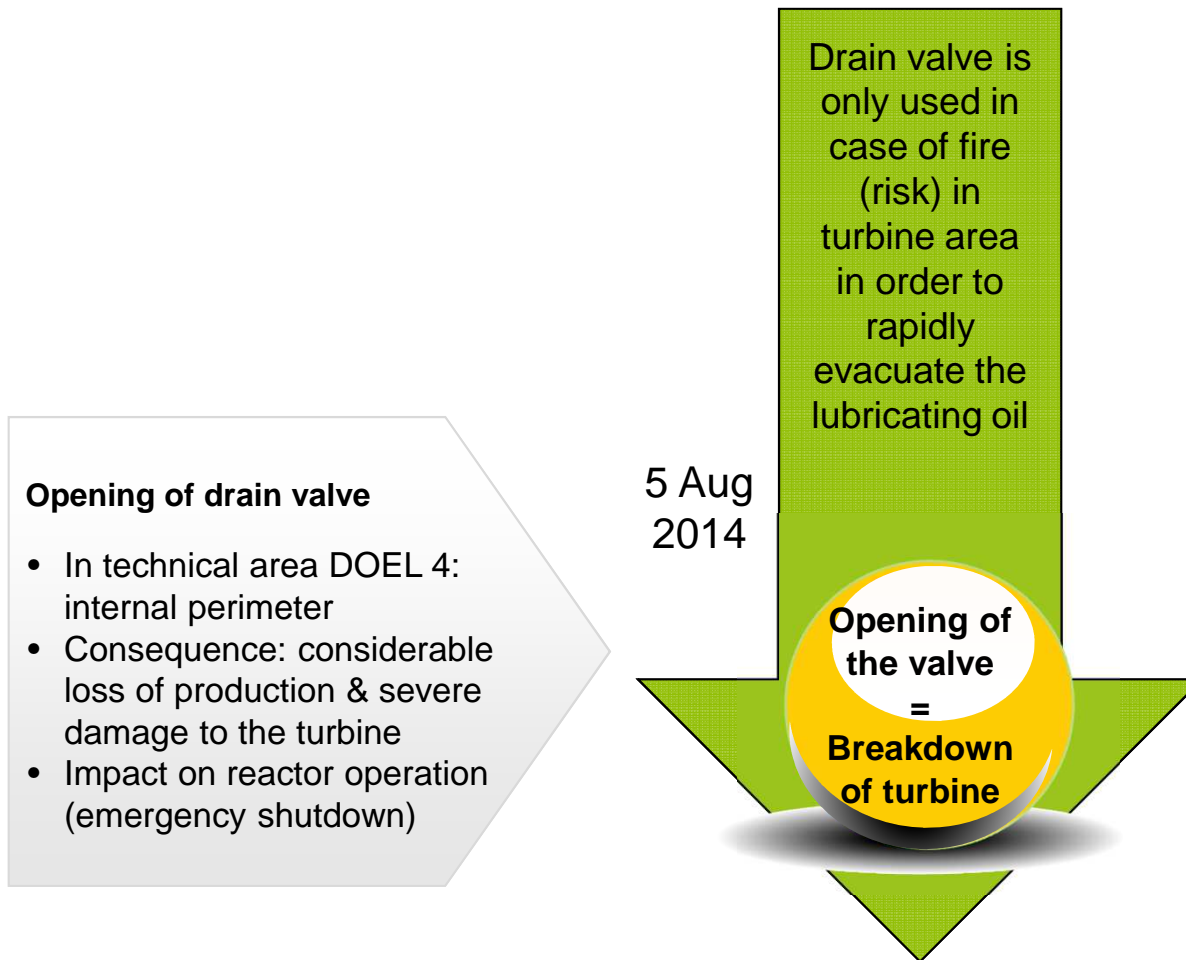


# INSIDER THREAT

# Insider threat

## Incidents DOEL 4

### Timeline: August 2014 in turbine area



# Insider Threat

- This means that the act was most likely committed by a person with legitimate access, who knowingly acts or tries to act, with the intention to harm.

=> Insider threat



# Insider threat

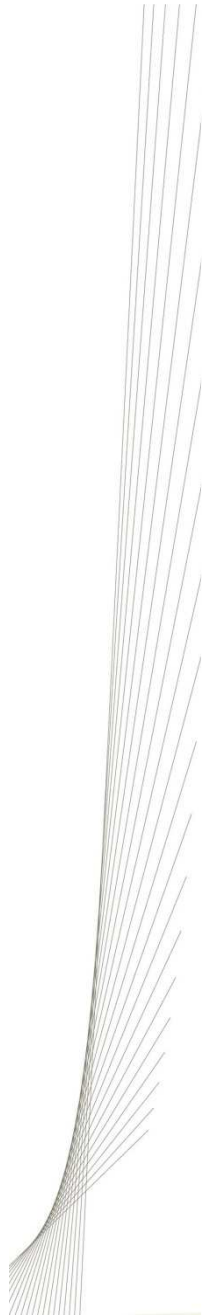
## Incident Doel 4. Actions undertaken by the FANC related to nuclear security

- Doel : A number of security measures have been imposed (inhibiting effect for insiders)
- Tihange : A number of security measures have been imposed
- Other nuclear installations : Increased (internal) vigilance – Threat Level 2 (CUTA)
- Specific workshop with all nuclear operators on Insider Threat

# Insider threat

## Incident Doel 4. Actions undertaken by the FANC related to nuclear safety

- Request for verification of operability of safety-related equipment on the Doel & Tihange sites.

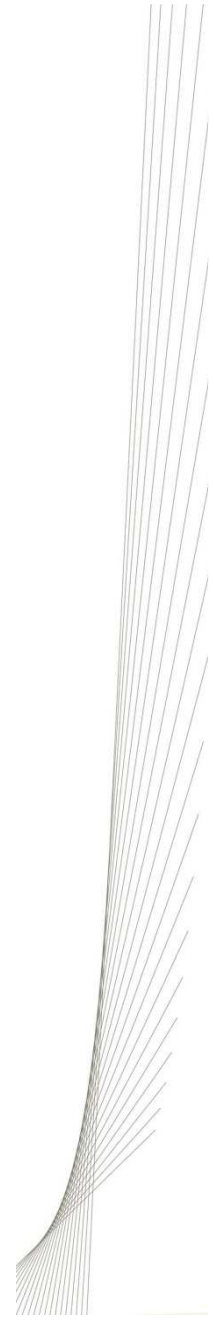




# Insider threat

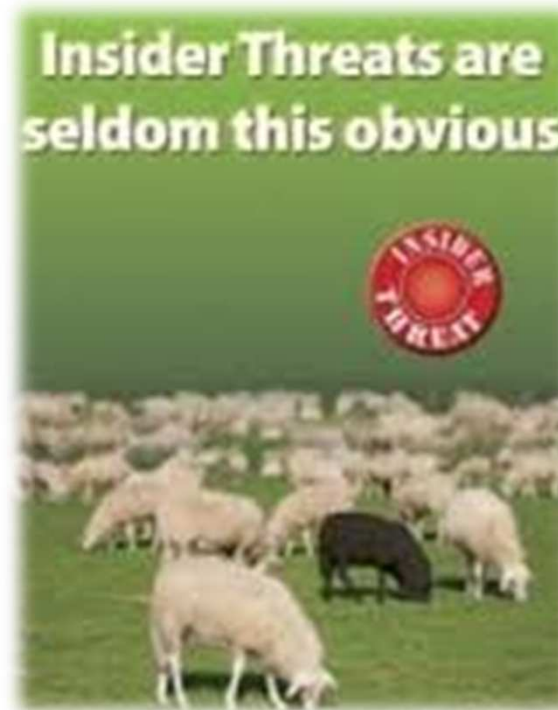
## Incident Doel 4. Other actions undertaken by the FANC

- The investigation by the Federal Public Prosecutor's Office was started up
- Action plan for possible start-up
  - Insider Threat Program
  - Applicable to both NPPs
  - Based on NSS 8
  - Include all possible scenario's



# Insider threat

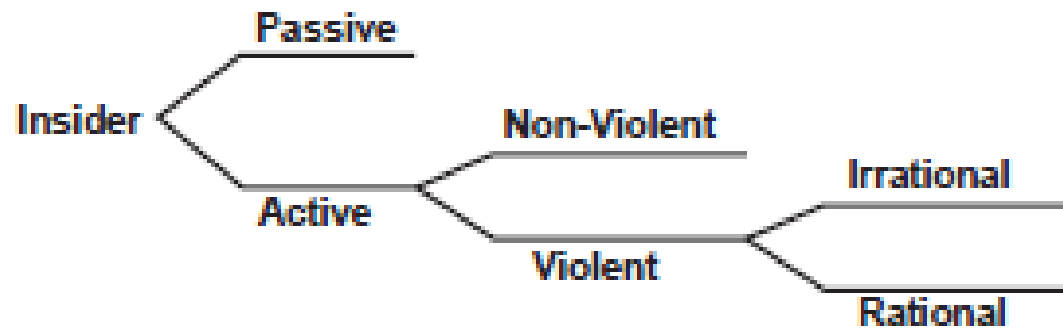
- Analyse
- Identify
- Target Identification



# Insider threat

## Analysis of the threat : Possible profiles

- Active insider: someone who acts
- Passive insider: someone who provides information to a third party and thereby helps the action



# What are the components of the threat?

Analysis of the threat :

## THREAT

=

Intent

x

Capability

(Desire + Expectation)

(Knowledge + Resources)



# Insider threat

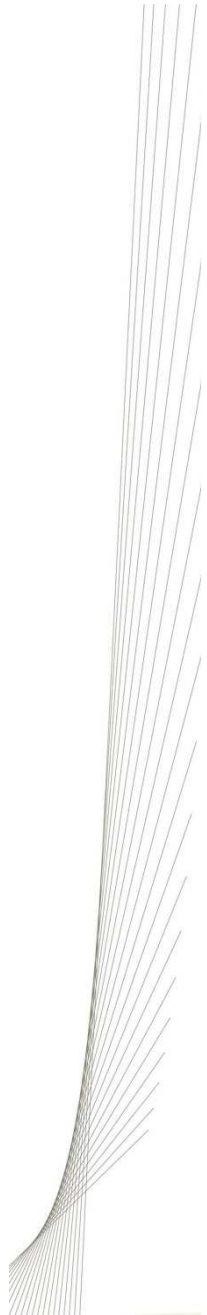
## Identify the threat :

- Person:
  - Own staff and contractors need to be analysed
    - Who has which knowledge?
    - Who has access, authority (knowledge) ?
  - Conform to 1998 Security Clearance Act or Royal Decree 17 October 2011: Security Clearance, Security Certificate, Access Permit
    - = first threshold.
      - NSA, FANC, OCAD, Intelligence services, Police
  - Follow-up and aftercare in the first line = crucial!
    - Operator: Hierarchy, colleagues, HR, Security Officer, Delegate for Physical Protection, ...
    - Discussions between operators and contractors
  - Communication and feedback between authorities and operators

# Insider threat

## Target identification

- Targets:
  - The specific parts, equipment, information... that must be protected need to be analysed



# Insider threat



## POTENTIAL MEASURES

# Insider threat

## Potential measures

- Potential security measures against an insider threat are situated on three axes:

1. Security Culture
2. Physical Protection
3. Trustworthiness





# Insider threat

## 1. Security Culture

- Security culture, also for externals
  - Security awareness, training, ...
  - NSS No. 7
- Strange/suspicious actions need to be reported internally and followed up



# Insider threat

## 2. Physical protection

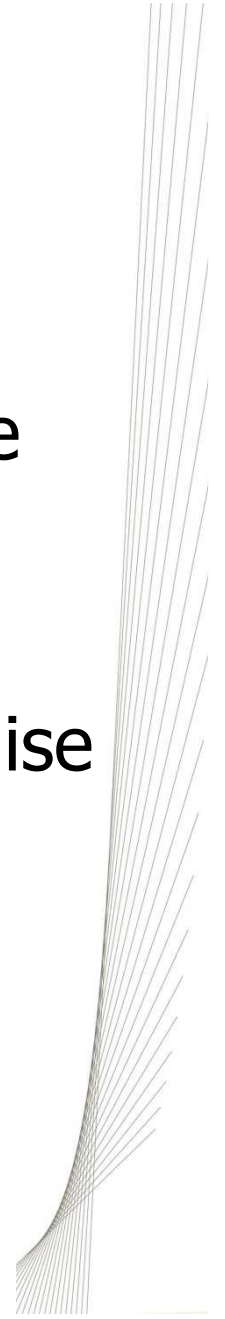
- Limited access ( examples of measures basis NSS8)
  - Access control and identification/verification
  - Accompaniment for unauthorised persons (2 man rule)
  - “Need to go”- principle
  - Closing “gaps”



# Insider threat

## 2. Physical protection

- Information security: “Need-to-know”-principle
- Watch over vital processes, equipment...
- Evaluate and test systems regularly and optimise them:
  - vulnerability analysis
- Adequate response



# Insider threat

## 3. Trustworthiness

- HR recruitment process complete (first step)
- Implementation of the 1998 Security Clearance Act or the Royal Decree Trustworthiness
  - Security Clearance required at company level
  - Through observation, changes in behaviour can be detected earlier
  - Reporting of changes (moves, marriage,... ) to the competent authorities (NSA)



# Insider threat

## Major Concerns

- Is this approach sufficient ?
- Fast changing society
- Not technical matter
- Lessons learned from previous incidents (confidentiality)



# Recent security measures in response to the increased terrorist threat



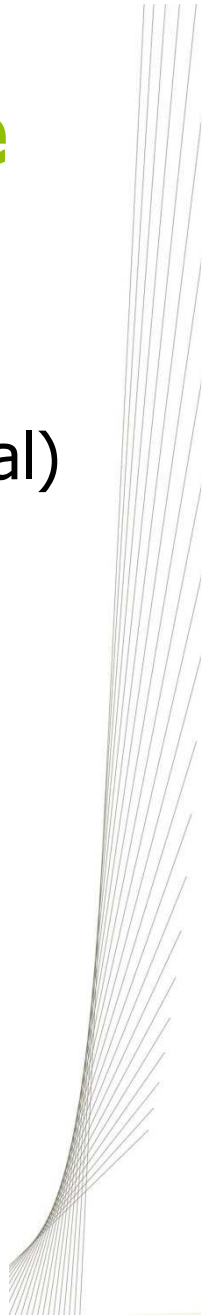
# Recent measures in response to the increased terrorist threat

- Increased terrorist threat
  - Jewish museum in Brussels, Charlie Hebdo attack, Verviers, Tunisia, Lyon, Paris
  - Evaluation with Belgian Coordination Unit for Threat Assessment (CUTA)
  - Level 2
  - No direct threat to the nuclear industry
  - FANC decides to take additional security measures as part of increased vigilance



# Recent measures in response to the increased terrorist threat

- Further events late 2015
  - Event in a hospital (not involving radioactive material)
  - Observation of high-ranking nuclear official
  - Evaluation by CUTA
  - Level 2 with increased vigilance
  - Extra measures in nuclear industry and radioactive material industry.





# Recent measures in response to the increased terrorist threat

- 22.03.2016: Attack at Brussels airport - Maalbeek metro station
  - Nuclear industry at threat level 4 (1<sup>st</sup> time in Belgium)
  - Additional measures at nuclear facilities, including transport
  - Additional measures in radioactive material industry, including transport
- Currently: Nuclear industry at threat level 3 (actual situation)
  - Dito level 4 but “less stringent” in some areas



# Recent measures in response to the increased terrorist threat

- Events with a lot of media coverage
  - Evacuation at NPP sites 22/03
  - Link terror case -> nuclear sites
  - Murder of G4S security guard
  - Withdrawal of clearance/certificates



# Recent measures in response to the increased terrorist threat

## Why are military on nuclear sites in Belgium

- Response

- 23.12.2015: The Federal government decides to set up a special unit within the federal police to protect certain locations including nuclear sites and their personnel, infrastructure, materials and documents
- 04.03.2016: The Federal government decides to post military personnel to protect nuclear sites, pending the deployment of the response team

# Recent measures in response to the increased terrorist threat

- Ongoing actions
  - FANC has coordinated the on-site deployment of the military
  - First feedback meeting has taken place: very positive feedback
  - Follow-up of measures threat level 4/3 (inspections)
  - First contact with Federal Police/licensees concerning the special unit
  - Continuous assessment (FANC – Licensee – CUTA – other competent authorities)

# Q&A

