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# German Ukraine Cooperation in Nuclear Security

# German Ukraine Cooperation in Nuclear Security: Improvement of Nuclear Security in Ukraine

- G7 initiative  
Global Partnership Against the Spread of  
Weapons and Materials of Mass Destruction
- Funded by:  
the German Federal Foreign Office (AA)
- Implementing agency:  
Gesellschaft für Anlagen- und Reaktorsicherheit (GRS)  
gGmbH Germany



## On-going Projects in Ukraine

- Modernization of the physical protection of power unit No 3 of Rivne nuclear power plant

2015 - 2017: ~ 2.3 Mio €

2018 - 2019: under consideration

- Modernization of the perimeter of South Ukraine NPP

2015 - 2017: ~ 4.0 Mio €

2018 - 2019: under consideration

# Framework Agreements

- Ukraine
  - Bilateral Technical Cooperation Treaty (1996)
  - Verbal Note Exchange (2010, 2015)– Projects
  - Announcement and Definition
  - Project Registration with ukr. Ministry of Economics
- Germany
  - Framework Agreement with GRS
  - Project Agreements
  - Budget Requirements
- Extension beyond 2017: on-going negotiations!

# Project RNPP



# Project RNPP

Modernization of the physical protection  
of power unit No 3  
of Rivne nuclear power plant  
in cooperation with State Enterprise „Energoatom“



# Project RNPP

- **Problem:**

Applying the „Defence in Depth” principle to the physical protection of inner security areas of nuclear power units

- **Measures:**

Retrofitting of inner security area by modernisation of access control system, detection, video surveillance, elements of barriers as well as by connection of upgraded systems to Central Alarm Station of the plant.

# Project RNPP

- **Status:**

delivered, on site and ready for installation:

- barriers (doors, grids, guard booth)
- video system components
- minimal system for biometric access control

next supply:

- components for full biometric access control system



## Project RNPP – lessons learnt

- Elements of barriers:  
EU certificates for resistance and fire protection  
not sufficient for UKR
- Video components:  
connectivity of modern digital and aged analog systems
- Biometric Systems:  
Installation / enrollment of personnel
- long delay between delivery (2016) and installation (2018)

# Project SUNPP



# Project SUNPP

Modernisation of the perimeter  
of South Ukraine NPP  
in cooperation with State Enterprise „Energoatom“



# Project SUNPP

- **Problem:**

About 6 km perimeter to be modernized/fortified.  
This comprises fence-system, railway access,  
four car access points and assigned alarm station.

- **Measures (Germany):**

- Construction of 10 protected guard booths, their power supply, climatization, interface/communication with alarm station.
- Upgrade of vehicle access points (cars, trucks, trains)
- Supply and support for installation of vehicle barrier bars, sliding gates and more guard booths

# Project SUNPP

- **Status:**

- 10 guard booth installed and in use
- one vehicle access point, installation in progress
- another vehicle access point, delivery in progress

next supply:

- components and elements for an personnel access point with modernisation of a section of the perimeter

## Project SUNPP – lessons learnt

- more effort needed than expected for coordinating administrative details concerning
  - international transport,
  - exemption from customs and
  - tax exemptions

## German Ukraine Cooperation – lessons learnt

- Paper work more complex than expected.
- Additional capacities bound by time pressure due to duration of negotiations of agreement.
- Interfaces on different levels:
  - Foreign Office/GRS
  - GRS/Energoatom
  - GRS/Manufacturers and Service Providers
  - German Embassy Kiev/Ukrainian Governmentrequire complex, but clear coordination structures.
- International coordination remains a challenge

# German Ukraine Cooperation – Further Activities

- **Project RNPP**

- installation of delivered components
- supply of additional barriers
- supply of biometric access control system
- additional support in 2018 and 2019 for NPP unit #3

- **Project SUNPP**

- installation of KPP #5 and #6
- supply for KPP #4
- additional support in 2018 and 2019 for perimeter