TWINNING PROJECT TR 13 IPA NS 01 16 R
IMPROVEMENT OF THE NUCLEAR SAFETY
REGULATORY INFRASTRUCTURE OF TURKEY

Mission Report
ACT. 4.2
(Workshop 6)

„Conduction of a Fire Protection Inspection at (coal-fired) ISKEN Power Station in Adana/TURKEY“

Mission carried out from
- 20th November 2018 – 22nd November 2018

Date of Workshop:
- 20th November 2018 – 22nd November 2018

Place of Workshop:
- ISKEN Power Station in Adana/TURKEY

Mission carried out by
- , TÜV SÜD Industrie Service GmbH
- , Gesellschaft für Anlagen- und Reaktorsicherheit gGmbH

This is a twinning partnership between:

This project is co-funded by the European Union and the Republic of Turkey
1. Executive Summary

This Mission Report was prepared within Twinning Project TR 13 IPA NS 01 16 R, entitled “Improvement of the Nuclear Safety Regulatory Infrastructure of Turkey”.

The sixth workshop under Activity 4.2 “Workshops” of Component 4 “Human Resources Management” was carried out. The conducted workshop was titled “Conduction of a Fire Protection Inspection at (coal-fired) ISKEN Power Station in Adana/TURKEY”.

The present mission supplements on the one hand the activities and results of the Activity 4.1 “Development of a tailored TAEK/DNS Human Resource Management System Manual” and on the other hand the activities and results of the Activity 1.2 “Assistance to drafting by-laws, rules and regulation”. In the framework of the Activity 1.2 the draft regulation “FIRE SAFETY IN NUCLEAR INSTALLATIONS” was drafted by the above-mentioned expert.

During a three-day-workshop TAEK-experts dealing with fire protection and with I&C issues were invited. The workshop was conducted by two MS-experts, two BC-experts and the RTA. The most beneficial way of conducting this workshop would have been to conduct it in a nuclear power plant. But, due to the fact, that there is no operating nuclear power plant in Turkey, the experts decided to conduct it in a coal-fired power station. For this reason, the workshop was conducted at ISKEN Power Station near the city of Adana.

2. Team Members

The Mission was carried out by:

- [Redacted], TÜV SÜD Industrie Service GmbH
- [Redacted], Gesellschaft für Anlagen- und Reaktorsicherheit gGmbH

From Turkish side the participants were:

- Mr. Mirac Bahadir ÖZtemiz
- Mr. Cagri Bicer

In addition the RTA of the Twinning Project took part in the mission.
3. **Mission Results**

The schedule of the workshop was as follows:

**Day 1:**
- 10:00 – 11:00 Initial Meeting with ISKEN staff
- 11:00 – 12:00 Fire Protection Documentation of ISKEN – Review – Part 1
- 12:00 – 13:00 Lunch
- 13:00 – 15:00 Fire Protection Documentation of ISKEN – Review – Part 2
- 15:00 – 17:00 Plant-Tour: Fire Protection Inspection – Part 1

**Day 2:**
- 10:00 – 12:00 Plant-Tour: Fire Protection Inspection – Part 2
- 12:00 – 13:00 Lunch
- 13:00 – 15:00 Plant-Tour: Fire Protection Inspection – Part 3
- 15:00 – 17:00 Final Meeting with ISKEN staff

**Day 3:**
- 10:00 – 12:00 Debriefing Meeting MS/BC
- 12:00 – 13:00 Lunch
- 13:00 – 15:00 Debriefing Meeting MS/BC
- 15:00 – 17:00 Preparation of Mission Report

**ISKEN Power Station**


İsken Sugözü Power Plant is a first coal fired power plant which is built and operated by private sector in Turkey. ISKEN Sugözü Power Plant has operated in compliance with international technical standards and the competitiveness of the plant is secured by efficient design and high availability. Thus, it provides reliable and efficient power to the grid (9 billion kWh electrical energy per year). In addition to supplying reliable,
efficient and competitive power to the national grid, environmental protection is one of the main goals of ISKEN Sugözü Power Plant

- 1210 MW (2X605) Net Installed Capacity
- High Quality Hard Coal as Fuel
- USD 1,5 billion foreign direct investment
- Contribution to the Regional Economy
- Production of Reliable and Environmentally Friendly Energy
- Extensive Environmental Monitoring and Management Program

Shareholders of ISKEN are steag (%51) and CYAK (%49). Both take high priority in the operation of the plant.

Reviewed Documents:

Following fire protection documents of ISKEN power plant have been reviewed by the experts:

See annex 1.

Stations of the plant tour:

Following plant areas have been inspected by the experts:

- Fire water pump building
- Open air transformers
- Turbine building
- Switchgear building
- Coal mill building
- Vessel building
- Stack
- Office Building
- Lime stone crusher building
- Workshop for hot works
- Open air areas

Recommendations

Following recommendations have been given to the plant operator of ISKEN Power Station:

- Door of main control room: The deadbolt of the door of main control room was blocked permanently by a metal shield. This blocking prevents that the door stays closed in case of fire. Therefore, the blocking should be removed.
- Cable seals: Two cable seals were open due to the ongoing maintenance works and should be closed temporarily after finishing daily work.

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- Dripping oil tub of transformers: The tubs for dripping oil of transformers should be filled with gravel.
- Turbine oil tank room: Above the door of turbine oil tank room the ventilation duct has no fire damper. A fire damper should be added.

4. Conclusion

Workshop 6 titled “Conduction of a fire protection inspection at (coal-fired) ISKEN power-station in Adana/TURKEY” under Activity 4.2 was conducted as planned in Operative Side Letter No. 5.

The MS-experts thank to ISKEN Power Station and the Turkish counterparts for the excellent organization, their great cooperation and transparency as well as their hospitality throughout the workshop 6 of Activity 4.2.

5. Annex

Annex 1: Fire Protection Documents of ISKEN Power Plant