DEVELOPMENT OF SEVERE ACCIDENT MANAGEMENT GUIDELINES
2003-2013
Risk Engineering Ltd. participated in the development of SAMG for operating NPP in the frames of two international projects:

- PHARE project 1010.01 - “Phenomena investigation and development of Severe Accidents Management Guidelines for Units 3& 4 (WWER 440) and for Units 5 & 6 (WWER 1000) of Kozloduy NPP” (RID-354), (Consortium between EDF, FORTUM, Risk Engineering Ltd. EnproConsult Ltd.)

- U1.05/08 T1 - T2, 2010 - “Accident Management Guidelines and Procedures; Improvement of the Emergency Documentation”, (RID-827), (Consortium between TVONs, Risk Engineering Ltd, EnergoRisk Ltd)
Data for project PHARE BG01.10.01

“Phenomena investigation and development of Severe Accidents Management Guidelines for Units 3& 4 (WWER-440) and for Units 5 & 6 (WWER-1000) of Kozloduy NPP”

Implementation period: 2003-2005

The purpose of the project is to study the phenomena and to develop SAMG for KNPP Units, WWER-440 and WWER-1000

The project is based on the international experience and determination of the Best Estimate Approach for KNPP. The project includes analyses for determination of the impact of limitations and features of the Units, which will be used for development of severe accident management guidelines and severe accident management procedures, which will be enclosed to the operating documentation of the plant.
Specific activities:

- International experience analysis: approaches;
- Emergency instructions and procedures analyses;
- Emergency plans analysis: emergency plan of KNPP and National emergency action plan;
Data for project PHARE BG01.10.01 (3)

- Elaboration of models and calculation of physical processes;
- Measuring equipment and information systems analysis to assist the operator;
- Development of Severe Accidents Management Guidelines;
- Drafting severe accident management procedures, separately for Main Control Room (Emergency Control Room) and the Emergency Response Center.

Source of funding EBRD etc.
Implementation period:
January 2011 - December 2013

The project is designed for development of methodological guidelines and ensuring methodological assistance at all procedural steps required for SAMG and EOP development and validation (for shutdown Unit) for all operating Units in Ukraine.

Object: Operating Units in Ukraine (NNEGS Energoatom, Ukraine) by developing SAMG for RNPP Unit 1, SU NPP Unit 1 and ZNPP Unit 1.
Unique features:
• The project aims at providing complete methodological and engineering support at all stages of SAMG development.

Specific activities:
• Analysis of the international experience in SAMG development;
• Determination of the required engineering features including modifications and modernizations to achieve maximum efficiency of SAMG;
• Participation in the process of SAMG dissemination upon Units and NPP which are not included in the scope of the project.
Implementation Stages:
• Development of procedural manuals for step-by-stem implementation of each stage of SAMG development;
• Development and validation of computer models for severe accident analysis;
• Analysis and determination of key parameters and monitoring features of the processes and information for the operators;
• Development of manuals for writing and using the SAMG;
• Development of procedures for SAMG at the MCR and Emergency Response Center;
• SAMG validation.

Source of funding: EC – INSC PROGRAMME, EuropeAid/130025/C/SER/UA