### Nuclear power of new generation

### **"LESSONS LEARNED FROM NPP CONSTRUCTIONS"**

### ALBERT KOPJEV 08.02.2022 FERMI.



# VOGTLE 3 JA 4

### •USA/AP1000/2x1117MWe/2022-2023





ogtle Units 3&4

# **OLKILUOTO-3**

### •FINLAND/EPR/1x1630MWe/2021





## **FLAMANVILLE-3**

### •FRANCE/EPR/1x1600MWe/2023





# HANHIKIVI-1

### •FINLAND/VVER-1200/1x1200MWe/2029\*





## NPP CONSTRUCTION REALITY

TIME+COST

**PROJECT SCOPE** 



# **EXPAMPLE OF CHANGES**

#### **Temporary buildings:**

15 signatures for approval

#### Main buildings:

21 signatures for approval

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## PREPARATION

- Time schedule and budget
- Looking for qualificated workforce in advance.
- Supply chain availability
- Co-work planning during construction with inspector authorities
- Safety culture implementation
- Quality assurance and Quality control system for whole project
- Administration of the documents

## DESIGN

- Competence of design team
- Reserve of the design resources
- Accuracy of the design (incl. investigations)
- Applicability of project solutions (presence of materials and products, availability of the technology)
- Development of the effective design change procedure
- Continuing monitoring of the design process
- Using of the BIM model
- Design supervision on site

# CONSTRUCTION

- Design Control
- Work execution planning
- Inspection planning
- Site geodesy system
- Cooperation with designer team
- Continious monitoring of the manufacturing of the important prefabricated components.
- Zero tolerance to quality and safety requirements
- Fast reaction on site situation
- Readiness for teamwork

# **EFFECTIVE MANAGEMENT**

#### Professional task and time management



## BIM 4D

#### BIM (Building Information Modeling) planning/supervising (4D)





# **GE BWRX-300**

### •EESTI/BWRX-300/300MWe





## CLEAN ENERGY FOR ESTONIA ANY WHEATHER WITH THE BEST PRICE THANK YOU!

