LOCALIZATION & SUPPLY CHAIN MANAGEMENT

NUCLEAR POWER PLANT PROJECTS
INTRODUCTION

CZECH POWER INDUSTRY ALLIANCE

- PARTNERSHIP OF COMPANIES, ACTING IN NUCLEAR INDUSTRY
- ESTABLISHED 2015
- PRESERVATION AND ENHANCING KNOW-HOW AND EXPERIENCE
- JOINT BUSINESS DEVELOPMENT IN THIRD COUNTRIES
CROSS BORDER NUCLEAR COOPERATION

• G2S AGREEMENTS CZECHOSLOVAKIA-SOVIET UNION
• 4 NUCLEAR POWER PLANTS
• RUSSIAN TECHNICAL DESIGN OF PRIMARY PART
• BOP AND TURBINE ISLAND – CZECH DESIGN - Energoprojekt
• 90% OF TECHNOLOGY MANUFACTURED IN CZECHOSLOVAKIA
• EPC contractor OF TECHNOLOGY – SKODA PRAHA

TEMELIN 2000 MW

• 1987 – START OF CONSTRUCTION
• 1993 – contract with WESTINGHOUSE – I&C + FUEL
• 2002 – COMMERCIAL OPERATION

MOCHOVCE 3,4 940 MW

• SEMI-FINISHED 1992
• CONSTRUCTION RESTARTED 2008
• ORIGINAL EPC SET-UP SKODA JS - ATOMSTROYEXPORT REPLACED BY MULTILOT ITALIAN APPROACH (ENEL)
• ORIGINAL BUDGET 2,8 BIL. €, NOW REACHING 6 BIL €
• ORIGINAL TIME SCHEDULE – COD 3rd UNIT 2012, 4th UNIT 2013
• 6000 WORKERS, >10 COUNTRIES
SUPPLY CHAIN & OVERSIGHT

CONCEPT OF “INTELLIGENT CUSTOMER”
SUPERVISION AND OVERSIGHT OVER ENTIRE LIFECYCLE
• FRONT END – ENGINEERING AND PREPARATION
• TENDER AND EPC CONTRACT
• ENGINEERING / DESIGN
• EXECUTION
• APPROVALS AND LICENCING
• TRANSPORT AND TAKING-OVER
• ...

FORMS
• AUDITS
• INSPECTIONS, SUPERVISION
• VERIFICATION
• EVALUATION, RATING, FEEDBACK

SUPERVISION/INSPECTION BY CUSTOMER
• QUALITY MANAGEMENT, QUALITY PLAN, INSPECTION PLANS
• QUALIFICATION*
• CONFORMITY WITH NORMS / STANDARDS
• CONCEPTS / PRINCIPLES
• DESIGN, PRODUCT AND/OR SERVICE
• ...

SAFETY CLASS, SIGNIFICANT AND SAFETY ITEMS → RELEVANCE TO NUCLEAR REGULATORY BODY / THIRD PARTY INSPECTIONS, etc.
TRAINING

TRAINING OF WORKERS

• PREPARATION OF TRAINING PLAN – SAFETY, NON-SAFETY ITEMS
• WORKPLACE SAFETY, EFFICIENCY – 5S (sorting, set in order, shining, standardizing, sustaining)
• SAFETY CULTURE
  • ANNUAL SURVEY – yearly monitoring and comparison
  • REPEATED TRAINING (WENRA, IAEA guides)
• CONTINUOUS VERIFICATION

SQEP (SUITABLY QUALIFIED AND EXPERIENCED PERSON)

• ALL WORKER NEED PROPER QUALIFICATION
• TRAINING – GENERAL AND SITE SPECIFIC
• EXPERIENCE / PRACTICAL SKILLS

• QUALIFICATION AT MANUFACTURING
• SPECIAL QUALIFICATION (NDT, WELDERS)

• ISO 19443:2018 – SAFETY CULTURE TOP-DOWN

TUV NORD

• 2018 – TRAINING OF TURKISH EXPERTS