



International Standardization of NPP I&C as a Prerequisite for Sustainable Development in Global Markets

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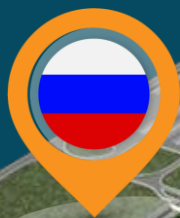


and **WE KNOW** the difference
between Europe and Asia,
and between countries in a region
in terms of **NPP I&C**

BUT WE ALWAYS END UP WITH AN EXCLUSIVE SOLUTION



Typical solution
VVER-1200



→ VVER-1200 -
Hungary



→ VVER-1200 - Finland



→ VVER-1200 -
Turkey

Due to differences in regulatory framework, unique customized solutions are implemented in each region / country on the basis of a typical VVER

**WHY DOES
IT HAPPEN**



Requirements of the Russian
laws and standards



**Typical design based
on one the Russian plants**

Requirements of international standards
and Customer's national and regional standards



**Tailored design to be implemented
in the Customer's territory**

When a nuclear power plant is built, requirements of international standards shall be met, along with the national regulatory framework of the Customer

Customers use different approaches to equipment classification, which has an impact on certain special requirements, e.g. for fire safety



Cost increase due to the need to introduce changes / elaborate TYPICAL design solutions in line with national and regional standards



Major changes in design and operational documentation

AS A RESULT



More expensive safety-related equipment



Individual (for each country) personnel training programs

**WE KNOW
WHAT TO DO**







PACY

IAEA

ISO (TC85)

ROSSTANDARD

IEC (TC45)

2013 - 2018

Harmonization
and development
~30 IEC standards

Participation in
development
~10 IAEA standards

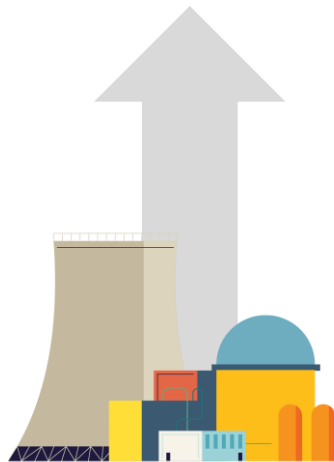
- Scientific and methodical support of standardization activities
- Development and review of drafts of national and international standards
- Participation in technical committees on standardization
- Unification of terms and definitions
- Exchange of experience and best practices

SUSTAINABLE GROWTH

of the global nuclear industry

NPP SAFETY

LESSONS LEARNED FROM OPERATION
OF EXISTING NUCLEAR POWER UNITS



NPP COMPETITIVENESS

SHORTER TIME FRAMES AND LOWER COSTS
WITH UNCOMPROMIZED QUALITY



HARMONIZATION and development of standards on I&C and electrical equipment for all enterprises of Rosatom and external companies



RASU - leading organization on I&C standardization
in the Russian nuclear industry

How can we harmonize national standards? Which tools do we need?

- Adapting the I&C solution in course of overseas NPP construction projects
- Establishing contacts with international organizations and national regulatory bodies
- Involving global partners for assurance of the goals of sustainable growth

**NPP I&C integrators club
for harmonization of standards
under the umbrella of IAEA, IEC, WANO?**

