Use of RDS-PP® as a harmonized designation system for wind power plants

Position paper from the owner’s point of view

June 2020
Use of RDS-PP® as a harmonized designation system for wind power plants

For efficient planning and construction as well as for the later operation and maintenance of a wind power plant, it is necessary to structure this plant and to assign clear and unambiguous alphanumeric codes to all assemblies and components.

The designations according to RDS-PP® (Reference Designation System for Power Plants) have been established for wind power plants for nearly 15 years. The regularly updated VGB-Standard VGB-S-823-32 reflects the latest status of the designation requirements for wind power plants.

The uniform designation systematic of RDS-PP® is being applied over the entire lifetime of wind power plants. For economic design and planning, erection, operation, maintenance and disassembly it is helpful and necessary to structure wind power plants and to clearly designate and label the individual components. Such designation is the basis for indexed plant documentation and standardised product documentation. Besides, it is also the key for successful data management: RDS-PP® provides definite reference addresses for engineering databases and plant management software thus facilitating the retrieval of technical data of components throughout their entire lifetime. It is the first time that all parties involved, i.e. designers, manufacturers, assurance companies, operators and owners can exchange data digitally with the help of RDS-PP® that is based on international designation standards. Therefore, it offers considerable advantages in comparison to single designation systems developed individually.

In particular, the following advantages regarding the VGB-Standard VGB-S-823-32 can be highlighted:

- **RDS-PP® is international:**
  The designation system has been standardized at international level, and therefore accepted world-wide. RDS-PP® is based on the series of standards IEC/ISO 81346, related to the structuring principles and the designation systematic.

- **RDS-PP® provides reliability:**
  International harmonization and the consistent structure of RDS-PP® help to avoid designation errors and misunderstandings, thus increasing plant reliability. Through the integration into international agreed upon standards, RDS-PP® substantially contributes to the fulfillment of legal safety requirements, given in the European Directives e.g. in the Machinery Directive, as well as in numerous national legislative acts.
RDS-PP® is cost-saving:
The designation system is a common standard for operators and manufacturers of wind power plants. The world-wide acceptance is opening up additional opportunities for long-term cost savings at the planning, building, operation and decommissioning of power plants. Decreasing the amount of time spent identifying spare parts since all parts have a unique identification number. Using RDS-PP® enables performance comparison and building up material statistics which may lead to a reduction of the overall operational costs.

RDS-PP® is IT compatible:
Due to its consistent structure RDS-PP® can be used as a powerful navigation tool to obtain complex information for planning, operation and maintenance. RDS-PP® is a suitable basis for the development of software applications, which can be integrated into existing IT-landscapes. These are applicable for operational tasks as well as for training purposes.

Respecting intellectual property rights, manufacturers have to provide detailed and comprehensive documentation to enable the owner/operator to perform safe operation and maintenance independent from the manufacturer. These documentations have to be in compliance with local and EU-wide regulations (e.g. Machinery Directive or similar standards). In this context, the wind power plants have also to be designated with the codes setted in the VGB Standards VGB-S-821-00 as well as VGB-B 102 and described in the VGB-Standard VGB-S-823-32 on behalf of the turbine owner.

The “Position Paper” of VGB PowerTech e.V. is supported by the members of the Strategic Forum “Wind” and the Technical Committee “Wind Energy”, e.g.:

Documents and licenses regarding RDS-PP® are part of the membership for Ordinary Members of VGB PowerTech e.V.
Further information is available at https://rds-pp.vgb.org
VGB PowerTech e.V.

VGB PowerTech e.V. is the international technical association for generation and storage of power and heat. 437 members from 33 countries represent a capacity of 302 GW, more than 38 GW of this is wind. Owners and operators of wind power plants are sharing their experience to different technical and environmental topics. Currently, more than 130 experts from the operating companies are actively participating in VGB’s wind committees.

According to its statutory duties, VGB is aiming at improving power plant efficiency, safety and security, health and safety at work, economic benefits, environmental compatibility, supply security, and technical expertise in all fields of generation. VGB coordinates international experiences and expertise and promotes the exchange of them.

Results of the work of VGB PowerTech are integrated in the VGB-Standards (sub-legal regulation). VGB PowerTech also publishes the international technical journal “VGB PowerTech” dealing with power and heat generation.

Current results of the work of VGB PowerTech are published in the “VGB Newsletter” and on the VGB website.

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