Our know-how – Your benefit

<table>
<thead>
<tr>
<th>Materials Laboratory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Chemistry</td>
</tr>
<tr>
<td>Oil Laboratory</td>
</tr>
<tr>
<td>Engineering Consultancy</td>
</tr>
<tr>
<td>Supervision of Construction and Installation</td>
</tr>
</tbody>
</table>

Our customers make use of our services worldwide to achieve sustainably safe, trouble-free and cost-effective operation. We listen to your problems and establish solutions which are notable for their cost-effectiveness and technical expertise.

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VGB-Standard

RDS-PP® Pocketbook

| Basic information
| Thermal power plants
| Coal fired power plants
| Combined cycle power plants (CCPP)
| Gas-fired power plants
| Nuclear power plants
| Hydro power plants
| Wind power plants
| Biomass power plants
| Photovoltaic power plants
| Solar thermal power plants
| Geothermal power plants
| Power to gas plants
| Plants for air separation and coal gasification
| Plants for CO₂ separation

VGB-S-821-91-2020-10-EN

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(Excerpt from VGB-B 102)

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(Excerpt from VGB-S-832-00-2016-04-DE-EN)

Attention!
Content only for decoding!
RDS-PP® system – Publications

Basic Standards

- RDS-PP® Reference Designation System for Power Plants, Letter Codes for Basic Functions and Product Classes, (German/English edition), VGB-B 102, 270 pages, 2010

Type-specific RDS-PP®-Standards


Tables

- VGB-RDS-PP-BASIS-EXCEL-EN (Microsoft Excel®)
  RDS-PP® System key (English, VGB-S-821-00-2016-06-EN), Letter Codes for Basic Functions and Product Classes (VGB-B 102 d/e), Microsoft Excel® file, 2016

Further information: rds-pp.vgb.org and www.vgb.org/shop

RDS-PP®-App (Freeware)

RDS-PP® App for decoding. Information and download:
www.tipware.de
as well as App Store for iOS and Google play for Android.
Preface

This RDS-PP®-Pocketbook is an abridged version (extract) of the publication Reference Designation System for Power Plants RDS-PP® Letter Code for Power Plant Systems (System Key) VGB-S-821-00-2016-06-EN (former VGB-B 101e).

The complete RDS-PP® covers the publications listed on page 4.

It is recommended to consider the VGB-Standards Provision of Technical Documentation for Energy Supply Units, VGB-S-831-00-2015-05-EN, as well as Document Designation for Energy Supply Units, VGB-S-832-00-2016-04-DE-EN.

The abridged version is to assist the user in decoding systems and components employing RDS-PP® codes at the plant.

This pocketbook contains an excerpt of the:

- System Key for plants of the energy supply according to VGB-S-821-00-2016-06-EN and
- Basic information from the VGB-Standards:
  - RDS-PP® Reference Designation System for Power Plants – Letter Codes for Basic Functions and Product Classes, VGB-B 102, and
  - Document Designation for Energy Supply Units, VGB-S-832-00-2016-04-DE-EN.

This pocket book is not appropriate as working material for coding and must not be used for this purpose. The more detailed RDS-PP® publications by VGB PowerTech ensure a compliant coding. Special license agreements are available for digital systems and enterprise solutions.

Essen, Germany, October 2020
VGB PowerTech e.V.
Designation Structure according to RDS-PP®

Each designation part according to RDS-PP® consists of prefix and letters/digits according to the following table (VGB-S-823-01-2015-09-EN-DE):

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Letters, Digits</th>
</tr>
</thead>
<tbody>
<tr>
<td>#</td>
<td>Number</td>
</tr>
<tr>
<td>=</td>
<td>Equal</td>
</tr>
<tr>
<td>==</td>
<td>Equal=Equal</td>
</tr>
<tr>
<td>+</td>
<td>Plus</td>
</tr>
<tr>
<td>++</td>
<td>Plus=Plus</td>
</tr>
<tr>
<td>-</td>
<td>Minus</td>
</tr>
<tr>
<td>:</td>
<td>Colon</td>
</tr>
<tr>
<td>;</td>
<td>Semicolon</td>
</tr>
<tr>
<td>&amp;</td>
<td>and</td>
</tr>
</tbody>
</table>

Prefixes for designation tasks are listed in the following table:

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Name</th>
<th>Designation task</th>
</tr>
</thead>
<tbody>
<tr>
<td>#</td>
<td>Number</td>
<td>Conjoint designation</td>
</tr>
<tr>
<td>=</td>
<td>Equal</td>
<td>Function</td>
</tr>
<tr>
<td>==</td>
<td>Equal=Equal</td>
<td>Functional allocation</td>
</tr>
<tr>
<td>+</td>
<td>Plus</td>
<td>Point of installation</td>
</tr>
<tr>
<td>++</td>
<td>Plus=Plus</td>
<td>Site of installation</td>
</tr>
<tr>
<td>-</td>
<td>Minus</td>
<td>Product class</td>
</tr>
<tr>
<td>:</td>
<td>Colon</td>
<td>Terminal</td>
</tr>
<tr>
<td>;</td>
<td>Semicolon</td>
<td>Signal name</td>
</tr>
<tr>
<td>&amp;</td>
<td>and</td>
<td>Document kind class</td>
</tr>
</tbody>
</table>
The RDS-PP® is valid for the data position of the system code according to the following Figure (VGB-S-821-00-2016-06-EN):

<table>
<thead>
<tr>
<th>Breakdown level</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Number and type of data characters</td>
<td>AN(N)</td>
<td>AAA</td>
<td>NN</td>
<td>AA</td>
<td>NNN</td>
</tr>
<tr>
<td>Designation of data character</td>
<td>H1, H2, H3</td>
<td>S1, S2, S3</td>
<td>S4, S5</td>
<td>T1, T2</td>
<td>T3, T4, T5</td>
</tr>
</tbody>
</table>

Prefix
Identification of main systems according to project specific definition

**Designation of system**
System key for power plants
VGB-S-821-00-EN

Sub-division of a system
e.g. in trains, sections

Classification of basic functions and product classes. Letter code VGB-B 102

Counting of basic functions and products

Allowed Prefixes:

- `=` Function
- `==` Function allocation
- `++` Location
- `+` Point of installation
**RDS-PP®-Regelwerk**

**Basisregelwerk (inkl. Teil thermische Kraftwerke)**

- VGB-S-821-00-2016-06-DE  
  RDS-PP® Systemschlüssel

- VGB-B 102 d/e  
  RDS-PP® Kennbuchstaben  
  Grundfunktionen und Produktklassen

- VGB-S-823-01-2015-09-EN-DE  
  RDS-PP® Anwendungsrichtlinie  
  Kraftwerke, Allgemein

**Ergänzende Kraftwerkstyp spezifische Teile**

- VGB-S-823-31-2014-12-EN-DE  
  RDS-PP® Anwendungsrichtlinie  
  Wasserkraftwerke

- VGB-S-823-32-2014-03-EN-DE  
  RDS-PP® Anwendungsrichtlinie  
  Windkraftwerke

- VGB-S-823-33-2018-07-EN-DE  
  RDS-PP® Anwendungsrichtlinie  
  Photovoltaische Kraftwerke

- VGB-S-823-34-2020-12-EN-DE  
  RDS-PP® Anwendungsrichtlinie  
  Verbrennungsmotoren

- VGB-S-823-41-2018-07-EN-DE  
  RDS-PP® Anwendungsrichtlinie  
  Power to Gas

**Ergänzendes VGB-Regelwerk**

- VGB-S-831-00-2015-05-DE  
  Lieferung der Technischen Dokumentation für Anlagen der Energieversorgung

- VGB-S-832-00-2016-04-DE-EN  
  Dokumentenkennzeichen für Anlagen der Energieversorgung (DCC Schlüssel)

- VGB-S-891-00-2012-06-DE-EN  
  VGB-Abkürzungskatalog für die Kraftwerkstechnik

- VGB-B 108 d/e  
  Regeln zur Bildung von Benennungen und deren Anwendung in der Kraftwerkstechnik

**RDS-PP®-Standards**

Basic Standards (incl. part thermal power plants)

- **VGB-S-821-00-2016-06-EN**
  RDS-PP® System Key

- **VGB-B 102 d/e**
  RDS-PP® Letter Codes for Basic Functions and Product Classes

- **VGB-S-823-01-2015-09-EN-DE**
  RDS-PP® Application Guideline
  Power Plants, General

**Supplementary power plant type specific parts**

- **VGB-S-823-31-2014-12-EN-DE**
  RDS-PP® Application Guideline
  Hydro Power Plants

- **VGB-S-823-32-2014-03-EN-DE**
  RDS-PP® Application Guideline
  Wind Power Plants

- **VGB-S-823-33-2018-07-EN-DE**
  RDS-PP® Application Guideline
  Photovoltaic Power Plants

- **VGB-S-823-34-2020-12-EN-DE**
  RDS-PP® Application Guideline
  Combustion Engines

- **VGB-S-823-41-2018-07-EN-DE**
  RDS-PP® Application Guideline
  Power to Gas

**Supplementary VGB-Standards**

- **VGB-S-831-00-2015-05-EN**
  Provision of Technical Documentation for Energy Supply Units

- **VGB-832-00-2016-04-DE-EN**
  Document Designation for Energy Supply Units (DCC key)

- **VGB-S-891-00-2012-06-DE-EN**
  VGB abbreviation catalogue for power plant technology

- **VGB-B 108 d/e**
  Rules for the creation of denominations and their application for power plant engineering

System Key (excerpt from VGB-S-821-00-2016-06-EN)

Main Groups
A ................. Electrical grid and distribution system
B ................. Electrical auxiliary power supply system
C ................. Control and management systems
D ................. Functional allocation
E ................. Treatment and supply of fossil and renewable
energy sources including residues disposal
F ................. Handling of nuclear equipment
G ................. Water supply, disposal and treatment
H ................. Heat generation by combustion of fossil and
renewable energy sources and heat recovery
from natural energy sources
J ................. Nuclear heat generation
K ................. Nuclear auxiliary systems
L ................. Steam, water, condensate systems
M ................. Systems for conversion of energy
(without heat generation) and
for transmission of electrical energy
N ................. Medium supply systems for external consumers,
energy storage systems
P ................. Cooling water systems
Q ................. Auxiliary systems
R ................. Flue gas exhaust and treatment
S and T ....... - reserved for later standardization -
U ................. Structures and areas for systems inside
of the power plant process
V ................. Systems for storage of materials or goods
W ................. Systems for administrative
or social purposes or tasks
X ................. Ancillary systems
Y ................. Communication and information systems
Z ................. Structures and areas for systems outside
of the power plant process
A ................. Electrical grid and distribution system
AA ............... Systems for higher-level management
AB ............... Systems for Un > 420 kV
AC ............... Systems for 380 kV ≤ Un ≤ 420 kV
AD ............... Systems for 220 kV ≤ Un < 380 kV
AE ............... Systems for 110 kV ≤ Un < 220 kV
AF ............... Systems for 60 kV ≤ Un < 110 kV
AG ............... Systems for 45 kV ≤ Un < 60 kV
AH ............... Systems for 30 kV ≤ Un < 45 kV
AJ ............... Systems for 20 kV ≤ Un < 30 kV
AK ............... Systems for 10 kV ≤ Un < 20 kV
AL ............... Systems for 6 kV ≤ Un < 10 kV
AM ............... Systems for 1 kV < Un < 6 kV
AN ............... Systems for Un ≤ 1 kV
AP ............... Equipotential bonding systems
AS ............... Installation systems for several systems of the electrical grid and distribution system
AT ............... Transformer/Converter stations
AV ............... Systems for storage of material or goods
AW ............... Systems for administrative or social purposes or tasks
AX ............... Systems for beside- and help purpose among other duties from main process
AY ............... Systems for communication and information tasks
AZ ............... Objects for housing technical systems or installations of power distribution
B ................. **Electrical auxiliary power supply system**  
BB ............... Medium voltage electrical main supply system 1  
BBA–BBB ... Medium voltage electrical main supply system 1, voltage level 1 and 2  
BBS............. Installation system for higher-level tasks of medium voltage electrical main supply system 1  
BBT ............. Medium voltage auxiliary power transformer  
BBX ............. Fluid supply system for control and protection systems  
BBY ............. Control and protection system  
BC ............... Medium voltage electrical main supply system 2  
BCA–BCB ... Medium voltage electrical main supply system 2, voltage level 1 and 2  
BCS ............. Installation system for higher-level tasks of medium voltage electrical main supply system 2  
BCT ............. Medium voltage auxiliary power transformer  
BCX ............. Fluid supply system for control and protection systems  
BCY ............. Control and protection system  
BD ............... Medium voltage electrical supply system for safety services  
BDA–BDB ... Medium voltage electrical supply system for safety services, voltage level 1 and 2  
BDS ............. Installation system for higher-level tasks of medium voltage electrical supply system for safety services  
BDT ............. Medium voltage transformer  
BDV ............. Power generation system for safety services  
BDX ............. Fluid supply system for control and protection systems  
BDY ............. Control and protection system  
BF ............... Low voltage electrical main supply system 1  
BFA–BFC .... Low voltage electrical main supply system 1, voltage level 1, 2, 3  
BFS ............. Installation system for higher-level tasks of low voltage electrical main supply system 1  
BFT ............. Low voltage auxiliary power transformer
BFX ............. Fluid supply system for control and protection systems
BFY ............. Control and protection system

**BG** ............. Low voltage electrical main supply system 2
BGA–BGC .. Low voltage electrical main supply system 2, voltage level 1, 2, 3
BGS ............. Installation system for higher-level tasks of low voltage electrical main supply system 2
BGT ............. Low voltage auxiliary power transformer
BGX ............. Fluid supply system for control and protection systems
BGY ............. Control and protection system

**BH** ............. Low voltage electrical main supply system 3
BHA–BHC... Low voltage electrical main supply system 3, voltage level 1, 2, 3
BHS ............. Installation system for higher-level tasks of low voltage electrical main supply system 3
BHT ............. Low voltage auxiliary power transformer
BHX ............. Fluid supply system for control and protection systems
BHY ............. Control and protection system

**BK** ............. Low voltage electrical supply system 1 for safety services
BKA–BKC ... Low voltage electrical supply system 1 for safety services, voltage level 1, 2, 3
BKS ............. Installation system for higher-level tasks of low voltage electrical supply system 1 for safety services
BKT ............. Low voltage auxiliary power transformer
BKV ............. Electric source for safety services 1
BKX ............. Fluid supply system for control and protection systems
BKY ............. Control and protection system
BL ................. Low voltage electrical supply system 2 for safety services
BLA–BLC .... Low voltage electrical supply system 2 for safety services, voltage level 1, 2, 3
BLS ............... Installation system for higher-level tasks of low voltage electrical supply system 2 for safety services
BLT ............... Low voltage auxiliary power transformer
BLV ............... Electric source for safety services 2
BLX ............... Fluid supply system for control and protection systems
BLY ............... Control and protection system
BM ............... Uninterruptible power supply system (UPS)
BMA–BMC .. UPS distribution system 1, 2, 3
BMS ............... Installation system for higher-level tasks of UPS-system
BMU ............... Converter system
BMY ............... Control and protection system
BP ............... Low voltage DC electrical main supply system
BPA–BPC ... Low voltage DC electrical main supply system, voltage level 1, 2, 3
BPS ............... Installation system for higher-level tasks of low voltage DC electrical main supply system
BPU ............... Converter system
BPV ............... Battery system
BPY ............... Control and protection system
BQ ............... Low voltage DC electrical supply system 1 for safety services
BQA–BQC .. Low voltage DC electrical supply system 1 for safety services, voltage level 1, 2, 3
BQS ............... Installation system for higher-level tasks of low voltage DC electrical supply system 1 for safety services
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BQU</td>
<td>Converter system</td>
</tr>
<tr>
<td>BQV</td>
<td>Battery system</td>
</tr>
<tr>
<td>BQY</td>
<td>Control and protection system</td>
</tr>
<tr>
<td>BR</td>
<td>Low voltage DC electrical supply system 2 for safety services</td>
</tr>
<tr>
<td>BRA–BRC</td>
<td>Low voltage DC electrical supply system 2 for safety services, voltage level 1, 2, 3</td>
</tr>
<tr>
<td>BRS</td>
<td>Installation system for higher-level tasks of low voltage DC electrical supply system 2 for safety services</td>
</tr>
<tr>
<td>BRU</td>
<td>Converter system</td>
</tr>
<tr>
<td>BRV</td>
<td>Battery system</td>
</tr>
<tr>
<td>BRY</td>
<td>Control and protection system</td>
</tr>
<tr>
<td>BS</td>
<td>Installation systems for several systems of the electrical auxiliary power supply system</td>
</tr>
<tr>
<td>BSA</td>
<td>Installation system for systems for higher-level management</td>
</tr>
<tr>
<td>BSB</td>
<td>Installation system for several systems for measuring and metering</td>
</tr>
<tr>
<td>BSF</td>
<td>Installation system for several protecting systems</td>
</tr>
<tr>
<td>BSK</td>
<td>Installation system for several control systems</td>
</tr>
<tr>
<td>BSP</td>
<td>Installation system for several alarm systems</td>
</tr>
<tr>
<td>BSW</td>
<td>Installation system for panels and desks</td>
</tr>
<tr>
<td>BX</td>
<td>Fluid supply systems for control and protection systems</td>
</tr>
<tr>
<td>BY</td>
<td>Control and protection systems</td>
</tr>
</tbody>
</table>
C ................. Control and management systems
CA................ General process automation tasks
CAA–CAP .... Process automation tasks
CB................ Operation and monitoring
CBA–CBP .... Operation and monitoring
CBS ............. Installation system for several systems for operation and monitoring
CC ................ Automation systems
CCA–CCP .... Automation system
CCS ............. Installation system for several automation systems
CD ................ Diagnostic systems
CDA–CDP .... Diagnostic systems
CDS ............. Installation system for several diagnostic systems
CE ................ Engineering systems
CEA–CEP ... Engineering systems
CES ............. Installation system for several engineering systems
CF ................ Data transfer and remote control system
CFA–CFR ... Data transfer
CFS ............. Installation system for several systems for data transfer
CFT ............. Data transfer
CFU–CFW .. Remote control system
CJ ................ Optimization
CJA–CJP .... Optimization
CJS ............. Installation system for several systems for optimization
CK ............... Process monitoring
CKA ............ Fire alarm system
CKB ............ Gas warning system
CM .............. Operational management systems
CMA–CMP .. Operational management systems
CMS ............ Installation system for several operational management systems
CP ................ Corporate management systems
CPA–CPP ... Installation systems for several corporate management systems
CPS ............ Installation system for several operational management systems

CS ............. Installation systems for several control and management systems

CSA ........... Installation system for several control systems in case of centralized arrangement

CSE ........... Installation system for several control systems in case of decentralized arrangement
D ............ Functional allocation
DA ............ Supply process
DB ............ Main process
DC ............ Disposal process
DU ............ Hazard areas
E ................ Treatment and supply of fossil and renewable energy sources including residues disposal

EA ............ Supply with and storage of solid fuels
EAA ........... Ship loading and unloading system
EAB ........... Rail wagon and lorry/truck loading and unloading bay
EAC ........... Conveyance system
EAD ........... Stacking system
EAE ........... Bunker system, storage area
EAF ........... Dredger/crane
EAV ........... Lubricant system
EAW ........... Sealing fluid supply system
EAX ........... Fluid supply system for control and protection systems
EAY ........... Control and protection system

EB ................ Treatment of solid fuels including residues disposal
EBA ........... Conveyance system
EBB ........... Mixing system
EBC ........... Crushing system
EBD ........... Screening system
EBE ........... Separator and discharge system
EBF ........... Temporary storage for mechanical treated fuel
EBG ........... Predrying system
EBH ........... Main drying system
EBJ ........... Conveyance system for dry fuel including aftercooling

EC ................ Distribution of solid fuels

EF ................ Gas generation (gasification, fermentation)

EG ................ Supply of liquid fuels including residues disposal
EGA ........... Transfer system including pipeline
EGB ........... Storage system
EGC ........... Conveying system
EGD ........... Preheating system
EGE ........... Mechanical cleaning, scrubbing
EGF ........... Temporary storage
EGG ........... Piping system
EGR ........... Residues removal system
EGT ........... Heating medium system
EGU ............ Custody transfer metering station
EGV ............ Lubricant system
EGW ............ Sealing fluid supply system
EGX ............ Fluid supply system for control and protection systems
EGY ............ Control and protection system

EH ............ Treatment of liquid fuels including residues disposal
EHA–EHC ... Treatment of liquid fuels including residues disposal
EHV ............ Lubricant system

EK ............ Supply of gaseous fuels including residues disposal
EKA ............ Transfer system including pipeline
EKB ............ Scrubber system
EKC ............ Pressure boosting system
EKD ............ Preheating system
EKE ............ Mechanical cleaning, scrubbing
EKF ............ Storage system
EKG ............ Piping system
EKH ............ Pressure reduction system
EKI ............ Residues removal system
EKT ............ Heating medium system
EKU ............ Billing meter station
EKV ............ Lubricant system
EKW ............ Sealing fluid supply system
EKX ............ Fluid supply system for control and protection systems
EKY ............ Control and protection system

EL ............ Treatment of gaseous fuels including residues disposal
EM ............ Supply with supplementary fuels including treatment
EN ............ CO₂ conditioning
ER ............ Ignition fuel supply
ET ............ Residues removal after heat generation by combustion
EU ............. Treatment and transportation system for residues from fuel supply, gas generation and gas treatment
EUA ........... Residues treatment for gasification system
EUB ........... Residues treatment dust of gasification process
EUC ........... Residues treatment of precleaning
EUD ........... Sulfur extraction
EUE ........... Sulfuric acid generation
EUF ........... Treatment of residual gas
Handling of nuclear equipment

**FA** Internal storage of fuel assemblies and other radioactive parts
**FAA** Storage of new fuel assemblies
**FAB** Storage of spent/irradiated fuel assemblies and other radioactive parts
**FAE** Reactor well system
**FAF** Temporary storage for reactor internals
**FAH** Temporary storage for reused active system
**FAK** Heat removal system for coolant used for storage of spent fuel assemblies
**FAL** Cleaning system for coolant used for storage of spent fuel assemblies
**FAM** System for removal of surface contaminants on components in fuel assembly storage
**FAN** Emergency heat removal system for coolant used for storage of spent fuel assemblies

**FB** Handling of fuel assemblies and other reactor core internals
**FBA** Testing system for fuel assemblies
**FBB** Repair system for fuel assemblies and other reactor core internals
**FBC** Cleaning system for fuel assemblies
**FBD** Testing system for other reactor core internals
**FBE** Repair system for other reactor core internals
**FBF** Cleaning system for other reactor core internals
**FBQ** Air removal system
**FC** .......... Refueling and conveyance system for fuel assemblies and other reactor core internals

**FCA** .......... Charge and discharge system for fuel, absorber assemblies and other assemblies to be brought into or out of the reactor core with transport medium

**FCB** .......... Refueling system at reactor for replacement or reshuffling of fuel assemblies and other reactor core internals

**FCC** .......... Reshuffling system at reactor for reactor core internals

**FCD** .......... Handling system in storage of spent/irradiated fuel assemblies and other radioactive parts

**FCF** .......... Airlock system for fuel assemblies and other reactor core internals between rooms with different ambient conditions to be maintained

**FCJ** .......... System for conveyance of fuel assemblies and other reactor core internals between various locations in the reactor area

**FCK** .......... System for conveyance of fuel assemblies and other reactor core internals between the reactor area and storage area for spent fuel assemblies

**FCL** .......... System for conveyance of fuel assemblies and other reactor core internals between various locations in the storage area for spent fuel assemblies

**FD** .......... External temporary storage of spent fuel assemblies

**FDA** .......... External temporary storage of spent fuel assemblies in a wet spent fuel storage facility

**FDB** .......... External temporary storage of casks with spent fuel assemblies in a dry spent fuel storage facility

**FDC** .......... Testing system for spent fuel assemblies or casks with spent fuel assemblies in external temporary storage
FDE ............. Repair system for spent fuel assemblies or casks with spent fuel assemblies in external temporary storage
FDF ............. Reshuffling system for spent fuel assemblies or casks with spent fuel assemblies in external temporary storage
FDG ............. Airlock system for spent fuel assemblies or casks with spent fuel assemblies between rooms with different ambient conditions to be maintained in external temporary storage
FDJ ............. System for conveyance of spent fuel assemblies or for casks with spent fuel assemblies between various locations in the area of external temporary storage
FDK ............. Heat removal system for coolant used for external temporary storage
FDL ............. Cleaning system for coolant used for external temporary storage
FDM ............. Cleaning system for removal of surface contaminants on components in external temporary storage
FE ............. External temporary storage of irradiated breeder assemblies
FEA ............. External temporary storage of irradiated breeder assemblies in a wet spent fuel storage facility
FEB ............. External temporary storage of casks with irradiated breeder assemblies in a dry spent fuel storage facility
FEC ............. Testing system for irradiated breeder assemblies or casks with irradiated breeder assemblies in external temporary storage
FEE ............. Repair system for irradiated breeder assemblies or casks with irradiated breeder assemblies in external temporary storage
FEF ............. Reshuffling system for irradiated breeder assemblies or casks with irradiated breeder assemblies in external temporary storage
FEG ............ Airlock system for irradiated breeder assemblies or casks with irradiated breeder assemblies between rooms with different ambient conditions to be maintained in external temporary storage

FEJ ............ System for conveyance of irradiated breeder assemblies or casks with irradiated breeder assemblies between various locations in the area of external temporary storage

FEK .......... Heat removal system for coolant used for external temporary storage of irradiated breeder assemblies

FEL .......... Cleaning system for coolant used for external temporary storage of irradiated breeder assemblies

FEM .......... Cleaning system for removal of surface contaminants on components in external temporary storage of irradiated breeder assemblies

FH ............. Hot cell system

FHG ............ Airlock system for irradiated, activated system between rooms with different ambient conditions to be maintained, to and in the hot cell

FHJ ............ System for conveyance of irradiated, active system between various locations in the hot cell

FHM ............ Cleaning system for removal of surface contaminants on hot cell components

FHQ ............ Air removal system

FHR .......... Blanket gas supply

FHS .......... Heating medium supply system

FHT .......... Coolant supply system

FHU .......... Flushing fluid supply

FJ ............. Erection or in-service inspection system

FJA .......... Tools and erection system for reactor vessel

FJB .......... Tools and erection system for reactor vessel internals

FJC .......... In-service inspection system for the reactor vessel
FJD .......... In-service inspection system
for reactor vessel internals
FJE .......... Tools and erection system for components
of reactor coolant system
FJF .......... In-service inspection system for components
of the reactor coolant system
FJL .......... Tools and erection system for components
of reactor containment
FJM .......... In-service inspection system for components
of the reactor containment
FJN .......... Handling system for sodium-wetted parts

FK ........... Decontamination system
FKQ .......... Air removal system
FKR .......... Blanket gas system
FKS .......... Heating medium supply system
FKT .......... Coolant supply system
FKU .......... Flushing fluid supply
FKV .......... Lubricant system

FQ ........... Air removal system for handling of nuclear equipment
FQR .......... Blanket gas system
FQS .......... Heating medium supply system
FQT .......... Coolant supply system
FQU .......... Flushing fluid supply
FQV .......... Lubricant system

FR ........... Blanket gas system for handling of nuclear equipment
FRQ .......... Air removal system
FRS .......... Heating medium supply system
FRT .......... Coolant supply system
FRU .......... Flushing fluid supply

FS ........... Heating medium system for handling
of nuclear equipment
FSU .......... Flushing fluid supply
FSV .......... Lubricant system
FT ............. Coolant system for handling of nuclear equipment
FTU ........... Flushing fluid supply
FU ............. Flushing fluid system
               for handling of nuclear equipment
FV ............. Lubricant system
               for handling of nuclear equipment
FW ............. Sealing fluid systems
               for handling of nuclear equipment
FX ............. Fluid supply systems
               for control and protection systems
FY ............. Control and protection systems
**G** ................. Water supply, disposal and treatment

**GA** ............. Raw water supply
**GAA** .......... Extraction, mechanical cleaning
**GAB** .......... Piping and culvert system
**GAC** .......... Conveying system
**GAD** .......... Dosing of substances
**GAF** .......... Storage system
**GAV** .......... Lubricant system
**GAX** .......... Fluid supply system for control and protection systems
**GAY** .......... Control and protection system

**GB** ............. Treatment by decarbonization including cooling tower
                  make-up water treatment
**GBB** .......... Filtering, mechanical cleaning system
**GBC** .......... Aeration, gas injection system
**GBD** .......... Precipitation system
**GBE** .......... Acid proportioning system
**GBF** .......... Ion exchange, reverse osmosis system
**GBG** .......... Evaporation system
**GBH** .......... Deaeration
**GBJ** .......... Preheating, cooling system
**GBK** .......... Piping system, temporary storage,
                  conveying main fluid
**GBL** .......... Storage system outside fluid treatment system
**GBN** .......... Chemicals supply system
**GBP** .......... Regeneration, flushing system
**GBQ** .......... Injection system for main fluid
**GBR** .......... Flushing water and residues removal system,
                  including neutralization
**GBS** .......... Sludge thickening system
**GBT** .......... Heating, cooling and flushing fluid distribution system
**GBV** .......... Lubricant system
**GBX** .......... Fluid supply system for control and protection systems
**GBY** .......... Control and protection system
GC ............ Treatment by demineralization
GCB .......... Filtering, mechanical cleaning system
GCC .......... Aeration, gas injection system
GCD .......... Precipitation system
GCE .......... Acid proportioning system
GCF .......... Ion exchange, reverse osmosis system
GCG .......... Evaporation system
GCH .......... Deaeration
GCJ .......... Preheating, cooling system
GCK .......... Piping system, temporary storage, conveying main fluid
GCL .......... Storage system outside fluid treatment system
GCN .......... Chemicals supply system
GCP .......... Regeneration, flushing system
GCQ .......... Injection system for main fluid
GCR .......... Flushing water and residues removal system, including neutralization
GCS .......... Sludge thickening system
GCT .......... Heating, cooling and flushing fluid distribution system
GCV .......... Lubricant system
GCX .......... Fluid supply system for control and protection systems
GCY .......... Control and protection system
GD ............ Treatment of additional process water qualities
GDB .......... Filtering, mechanical cleaning system
GDC .......... Aeration, gas injection system
GDD .......... Precipitation system
GDE .......... Acid proportioning system
GDF .......... Ion exchange, reverse osmosis system
GDG .......... Evaporation system
GDH .......... Deaeration
GDJ .......... Preheating, cooling system
GDK .......... Piping system, temporary storage, conveying main fluid
GDL .......... Storage system outside fluid treatment system
GDN .......... Chemicals supply system
GDP .......... Regeneration, flushing system
GDQ .......... Injection system for main fluid
GDR .......... Flushing water and residues removal system, including neutralization
GDS .......... Sludge thickening system
GDT .......... Heating, cooling and flushing fluid distribution system
GDV .......... Lubricant system
GDX .......... Fluid supply system for control and protection systems
GDY .......... Control and protection system

GH ............ Distribution systems after water treatment
GHA .......... Distribution after raw water treatment
GHB .......... Distribution system after treatment
  (carbonate hardness removal)
GHC .......... Distribution system after treatment (demineralization)
GHD .......... Distribution system after treatment
  (other process water qualities)
GHW .......... Sealing fluid supply system

GM ............ Waste water drainage systems
GMA .......... Central drains system

GN ............ Waste water treatment systems
GNB .......... Filtering, mechanical cleaning system
GNC .......... Aeration, gas injection system
GND .......... Precipitation system
GNE .......... Acid proportioning system
GNF .......... Ion exchange, reverse osmosis system
GNG .......... Evaporation system
GNH .......... Deaeration
GNJ .......... Preheating, cooling system
GNK .......... Piping system, temporary storage,
  conveying main fluid
GNL .......... Storage system outside fluid treatment system
GNN .......... Chemicals supply system
GNP .......... Regeneration, flushing system
GNQ .......... Injection system for main fluid
GNR .......... Flushing water and residues removal system,
  including neutralization
GNS .......... Sludge thickening system
GNT .......... Heating, cooling and flushing fluid distribution system
GNV .......... Lubricant system
GNX .......... Fluid supply system for control and protection systems
GNY .......... Control and protection system
H ................ Heat generation by combustion of fossil and renewable energy sources and heat recovery from natural energy sources

HA ............ Pressure systems, feedwater and steam sections
HAA .......... Low pressure part-flow feed heating system
HAB .......... High pressure part-flow feed heating system
HAC .......... Economizer system
HAD .......... Evaporator system
HAG .......... Circulation system
HAH .......... High pressure superheater system
HAJ .......... Reheat system
HAK .......... Secondary reheat system
HAL .......... Steam generator drains system
HAM .......... Triflux system
HAN .......... Drain and vent system
HAP .......... Steam generator blowdown system
HAV .......... Lubricant system
HAW .......... Sealing fluid supply system
HAX .......... Fluid supply system for control and protection systems
HAY .......... Control and protection system

HB ............ Support structure, enclosure, steam generator interior
HBA .......... Frame including foundation
HBB .......... Enclosure
HBC .......... Brick lining including insulating brickwork
HBE .......... Pressure vessel (supercharged boiler)
HBK .......... Steam generator interior

HC ............ Fireside heat transfer surface cleaning system
HCA .......... Air sootblowing system
HCB .......... Steam sootblowing system
HCC .......... Water sootblowing system
HCD .......... Flushing system
HCE .......... Rapping gear
HCF .......... Shot cleaning system
HCG .......... Soundwave system
HCV .......... Lubricant system
HCW .......... Sealing fluid supply system
HCX .......... Fluid supply system for control and protection systems
HCY .......... Control and protection system

HD ............ Ash and slag removal
HDA ........... Furnace ash removal, furnace slag removal, bed ash removal
HDB .......... Bed ash return system
HDC .......... Ash return system including temporary storage
HDT .......... Fluid supply system for ash, slag and dust moistening
HDU .......... Carrier air supply system
HDV .......... Lubricant system
HDW .......... Sealing fluid supply system
HDX .......... Fluid supply system for control and protection systems
HDY .......... Control and protection system

HF ............ Bunker, feeder and pulverizing system
HFA .......... Bunker for pulverizing system
HFB .......... Feeder system
HFC .......... Pulverizing system
HFD .......... Flue gas return system
HFE .......... Mill air system, carrier air system
HFF .......... Vapor/exhaust gas system
HFG .......... Pulverized coal temporary storage bunker after central pulverizing system
HFR .......... Inerting system of pulverizing
HFW .......... Lubricant system
HFW .......... Sealing fluid supply system
HFX .......... Fluid supply system for control and protection systems
HFY .......... Control and protection system

HH ............ Main firing system
HHA .......... Main burner
HHB .......... Retarded combustion grate
HHC .......... Grate combustion system
HHD ............ Other burner system
HHE ............ Pulverized coal bin, forwarding and distribution system
HHF ............ Oil temporary storage, conveyance
               and distribution system
HHG ............ Gas pressure reduction, distribution system
HHH–HHK .. Temporary storage, forwarding and distribution system
               for other fuel, fluid 1, 2, 3
HHL ............. Combustion air supply system
HHM ............ Atomizer medium supply system (steam)
HHN ............ Atomizer medium supply system (air)
HHP ............ Coolant supply system (steam)
HHQ ............ Coolant supply system (air)
HHR ............ Purging medium supply system (steam)
HHS ............ Purging medium supply system (air)
HHT ............ Heating medium supply system (steam)
HHU ............ Heating medium supply system (hot water)
HHV ............ Lubricant system
HHW ............ Sealing fluid supply system
HHX ............ Fluid supply system for control and protection systems
HHY ............ Control and protection system
HHZ ............ Main firing system using electrical energy

HJ ............. Ignition firing system
HJA ............ Ignition burners
HJE ............. Pulverized coal bin, forwarding and distribution system
HJF ............ Oil temporary storage, conveyance
               and distribution system
HJG ............ Gas pressure reduction, distribution system
HJL ............ Combustion air supply system
HJM ............ Atomizer medium supply system (steam)
HJN ............ Atomizer medium supply system (air)
HJP ............ Coolant supply system (steam)
HJQ ............ Coolant supply system (air)
HJR ............ Purging medium supply system (steam)
HJS ............ Purging medium supply system (air)
HJT ............ Heating medium supply system (steam)
HJU ............ Heating medium supply system (hot water)
HJV ............ Lubricant system
HJW .......... Sealing fluid supply system
HJX .......... Fluid supply system for control and protection systems
HJY .......... Control and protection system

**HK** .......... Additional firing system
HKA .......... Additional burner
HKE .......... Pulverized coal bin, forwarding and distribution system
HKF .......... Oil temporary storage, conveyance and distribution system
HKG .......... Gas pressure reduction, distribution system
HKL .......... Combustion air supply system
HKM .......... Atomizer medium supply system (steam)
HKN .......... Atomizer medium supply system (air)
HKP .......... Coolant supply system (steam)
HKQ .......... Coolant supply system (air)
HKR .......... Purging medium supply system (steam)
HKS .......... Purging medium supply system (air)
HKT .......... Heating medium supply system (steam)
HKU .......... Heating medium supply system (hot water)
HKV .......... Lubricant system
HKW .......... Sealing fluid supply system
HKX .......... Fluid supply system for control and protection systems
HKY .......... Control and protection system

**HL** .......... Combustion air systems (air, oxygen)
HLA .......... Ducting system air
HLB .......... Forced-draught fan system
HLC .......... Air preheating system (not flue-gas-heated)
HLD .......... Air preheating system flue-gas-heated
HLE .......... Piping system oxygen
HLF .......... Oxygen fan system
HLG .......... Oxygen preheating (not preheated by flue gas)
HLH .......... Oxygen preheating by flue gas
HLV .......... Lubricant system
HLW .......... Sealing fluid supply system
HLX .......... Fluid supply system for control and protection systems
HLY .......... Control and protection system
HM .......... Gas heating system
HMA......... Primary heating system
HMB......... Radiation section
HMC......... Secondary heating system
HMD......... Reheat system
HMV......... Lubricant system
HMW......... Sealing fluid supply system
HMX......... Fluid supply system for control and protection systems
HMY......... Control and protection system
HP .......... Geothermal systems
HQ .......... Solar thermal systems
HY .......... Control and protection systems
J................... Nuclear heat generation
JA............... Reactor system
JAA............. Reactor vessel
JAB ............. Reactor vessel closure head internals requiring separate identification marking
JAC ............. Reactor vessel internals
JAD ............. Reactor vessel liner
JAE ............. Reactor vessel liner cooling system
JAF ............. Reactor vessel prestressing system on implementation as prestressed concrete vessel
JAG ............. Reactor vessel internal insulation
JAH ............. Reactor vessel external insulation
JAJ ............. Reactor vessel outer wall cooling system
JAT ............. Leak-off system and leakage detection system
JAV ............. Lubricant system
JAW ............ Sealing fluid supply system
JAX ............. Fluid supply system for control and protection systems
JAY ............. Control and protection system
JB............... Reactor vessel internals
JBA............. Reactor vessel internals
JD............... Reactor control and shutdown system
JDA........... Control rod drive unit
JDC............. Mechanical, process control system for coolant flow rate
JDE ............. Solid neutron absorber shutdown system
JDH ............. Liquid neutron absorber shutdown system
JDJ............. 2nd backup liquid neutron absorber shutdown system
JDK ............. Emergency shutdown system
JDM ............. Gaseous neutron absorber shutdown system
JDP ............. Power supply system for shutdown system
JDT ............. Leak-off system and leakage collecting system
JDV ............. Lubricant system
JDW ............ Sealing fluid supply system
JDX ............. Fluid supply system for control and protection systems
JDY ............. Control and protection system
JE .......... Reactor coolant system
JEA .......... Reactor coolant heat exchange
               (for two-cycle plants: steam generation)
JEB .......... Reactor coolant circulation
JEC .......... Reactor coolant piping system
               (not for single-cycle plant)
JEF .......... Reactor coolant pressurizing system
JEG .......... Reactor coolant pressure relief system
JET .......... Reactor coolant leak-off and collection system
JEV .......... Lubricant system
JEW .......... Sealing fluid supply system
JEX .......... Fluid supply system for control and protection systems
JEY .......... Control and protection system

JF .......... Moderator system
JFA .......... Moderator heat exchange system
JFB .......... Moderator circulation
JFC .......... Moderator piping system
JFD .......... Moderator tank
JFF .......... Moderator pressurizing system
JFG .......... Moderator pressure relief system
JFT .......... Moderator leak-off system
JFV .......... Lubricant system
JFW .......... Sealing fluid supply system
JFX .......... Fluid supply system for control and protection systems
JFY .......... Control and protection system

JG .......... Secondary coolant system (steam generation system)
JGA .......... Secondary coolant heat exchange

JGB .......... Secondary coolant circulation
JGC .......... Secondary coolant piping system
JGF .......... Secondary coolant pressurizing system
JGG .......... Secondary coolant pressure relief system
JGT .......... Secondary coolant leak-off and collection system
JGV .......... Lubricant system
JGW .......... Sealing fluid supply system
JGX .......... Fluid supply system for control and protection systems
JGY .......... Control and protection system
**JK** ............ Reactor core with appurtenances  
**JKQ** ............ Aeroball system for determination of flux distribution in the core with traveling, activity-sensitive probes  
**JKS** ............. In-core instrumentation system for detecting temperature and neutron flux in the core  
**JKT** ............ Ex-core instrumentation system for detecting temperature and neutron flux outside of the core  
**JKU** ............. Failed fuel assemblies detection system for detecting cladding tube damage  

**JM** ............. Containment and internals  
**JMA** .......... Containment  
**JMB** .......... Core melt stabilization system  
**JMC** .......... Annulus leak-off system  
**JMD** .......... Containment penetration for conveyance of fuel assemblies between fuel assembly storage building and reactor building  
**JME** .......... System airlock  
**JMF** .......... Personnel airlock  
**JMG** .......... Emergency airlock  
**JMH** .......... Construction opening  
**JMJ** .......... Structural components inside containment  
**JMK** .......... Piping penetrations in containment wall  
**JML** .......... Cable penetrations in containment wall  
**JMM** .......... Leakage monitoring and leak-off system at containment penetrations  
**JMN** .......... Containment spray system for pressure reduction in containment  
**JMP** .......... Pressure suppression system to limit pressure buildup in containment by condensation  
**JMQ** .......... System for heat removal from containment  
**JMR** .......... System for filtering containment atmosphere  
**JMS** .......... Hydrogen mixing system for mixing containment atmosphere
JMT .......... Hydrogen reduction system for reduction of unallowable H2 concentrations in the containment atmosphere

JMU .......... Hydrogen monitoring system for H2 concentration measurement in containment atmosphere

JMV .......... Lubricant system

JMW .......... Sealing fluid supply system

JMX .......... Fluid supply system for control and protection systems

JMY .......... Control and protection system

JN ............ Systems for removal of residual heat from reactor core

JNA .......... Residual heat removal system for shut down reactor

JNB .......... Emergency residual heat removal from shut down reactor

JND .......... High pressure injection in primary coolant system for make-up of small or medium leaks

JNG .......... Low-pressure feed (core flooding) in reactor coolant system for flooding of the reactor core in the event of large leaks

JNK .......... Borated water storage for use in case of requirement on residual heat removal

JNM .......... System for residual heat removal from core melt

JNP .......... Function testing system

JNV .......... Lubricant system

JNW .......... Sealing fluid supply system

JNX .......... Fluid supply system for control and protection systems

JNY .......... Control and protection system

JQ ............ OM-systems, hard wired back-up systems

JQA .......... OM-system, hard wired back-up system

JR ............ Reactor protection system

JRA .......... Reactor protection system

JS ............ Reactor control system

JSA .......... Reactor control system
JT............. Reactor operational, protective and status limitation system and status limitation system
JTA............ Reactor operational, protective and status limitation system

JV............. Lubricant system
JVA............ Lubricant system

JW............. Sealing fluid supply system
JWA............ Sealing fluid supply system

JX............. Fluid supply systems for control and protection systems
JXA............ Fluid supply system for control and protection systems

JY............. Control and protection systems
JYC............ Contamination monitoring system
JYE............ Diagnostic system for rotating machinery
JYF............ Loose parts monitoring system
JYG............ Vibration monitoring system
JYH............ Leakage monitoring system for detection of leaks inside of the containment
JYJ............ Leakage monitoring system for detection of leaks outside of the containment
JYK............ Radioactivity monitoring system
JYL............ Fatigue monitoring system for components
JYM............ Mobile monitoring system for radiation and activity monitoring
JYN............ Laboratory system for radiation and activity monitoring
JYV............ Valve monitoring system
K............. **Nuclear auxiliary systems**
KA.......... Component cooling systems
KAA......... Component cooling system
           for safety-related cooling loads
KAB......... Component cooling system
           for process-related cooling loads
KAC .......... Component cooling system for other cooling loads
KAD .......... Emergency component cooling system
KAV .......... Lubricant system
KAW .......... Sealing fluid supply system
KAX .......... Fluid supply system for control and protection systems
KAY .......... Control and protection system

KB.......... **Coolant treatment**
KBA.......... Level and volume control system
KBB.......... Coolant supply system
KBC .......... Boric acid and demineralized water control system
KBD .......... Chemical control system
KBE .......... Coolant purification system
KBF .......... Coolant treatment system
KBG .......... Coolant degasification
KBH .......... Regeneration system for coolant purification
KBJ .......... Tritium extraction system
KBV .......... Lubricant system
KBW .......... Sealing fluid supply system
KBX .......... Fluid supply system for control and protection systems
KBY .......... Control and protection system

KF.......... **Moderator treatment (D₂O moderator)**
KFA.......... Level and volume control system, moderator cycle
KFB.......... Moderator supply system
KFE .......... Moderator polishing system
KFW .......... Sealing fluid supply system
KFX .......... Fluid supply system for control and protection systems
KFY .......... Control and protection system
KG ............ Secondary coolant handling (D2O moderator)
KGA ............ Level and volume control system, secondary coolant cycle
KGB ............ Secondary coolant supply
KGD ............ Chemical control system
KGE ............ Secondary coolant purification system
KGV ............ Lubricant system
KGW ............ Sealing fluid supply system
KGX ............ Fluid supply system for control and protection systems
KGY ............ Control and protection system

KH ............ Nuclear heat tracing systems
KHA ............ Heat tracing system for reactor coolant system
KHB ............ Heat tracing system for secondary coolant system
KHC ............ Heat tracing system for other systems
KHW ............ Sealing fluid supply system
KHX ............ Fluid supply system for control and protection systems
KHY ............ Control and protection system

KJ ............ Nuclear chilled water systems
KJA ............ Low temperature system (below 0 °C) for coolant handling
KJB ............ Low temperature system (below 0 °C) for handling of gaseous radioactive waste
KJL ............ Chilled water system for coolant treatment
KJM ............ Chilled water system for gaseous radioactive waste processing
KJN–KJQ .... Chilled water system for back-up coolers
KJW ............ Sealing fluid supply system
KJX ............ Fluid supply system for control and protection systems
KJY ............ Control and protection system
KL ............. Heating, ventilation, air-conditioning (HVAC) systems in controlled areas and exclusion areas
KLA ............. Heating, ventilation, air-conditioning (HVAC) system in interior of reactor building
KLB ............. Heating, ventilation, air-conditioning (HVAC) system in annulus of reactor building
KLC ............. Heating, ventilation, air-conditioning (HVAC) system in controlled areas (Safeguard building)
KLE ............. Heating, ventilation, air-conditioning (HVAC) systems in reactor auxiliary building
KLF ............. Heating, ventilation, air-conditioning (HVAC) systems in processing building for radioactive waste
KLL ............. Heating, ventilation, air-conditioning (HVAC) systems in area of storage of fuel elements
KLV ............. Lubricant system
KLW ............ Sealing fluid supply system
KLX ............. Fluid supply system for control and protection systems
KLY ............. Control and protection system

KM ............. Solid radioactive waste processing system
KMA ............. Processing and treatment system for hard radioactive waste
KMD ............. Filter replacement system
KME ............. Intermediate storage system for hard radioactive waste
KMV ............. Lubricant system
KMW ........... Sealing fluid supply system
KMX ............ Fluid supply system for control and protection systems
KMY ............ Control and protection system

KN ............. Liquid radioactive waste processing system
KNC ............. Processing and treatment system for hard radioactive concentrates
KNF ............. Processing and treatment system for liquid radioactive waste
KNK ............. Intermediate storage system for liquid radioactive waste
KNV ............. Lubricant system
KNW ............ Sealing fluid supply system
KNX .......... Fluid supply system for control and protection systems
KNY .......... Control and protection system
KP .......... Gaseous radioactive waste processing system
KPL .......... Processing and treatment system
for gaseous radioactive waste
KPQ .......... Intermediate storage system
for gaseous radioactive waste
KPV .......... Lubricant system
KPW .......... Sealing fluid supply system
KPX .......... Fluid supply system for control and protection systems
KPY .......... Control and protection system
KR .......... Nuclear gas supply and disposal
KRA–KRH ... Blanket gas supply
KRJ–KRN ... Inert gas supply
KRV .......... Lubricant system
KRW .......... Sealing fluid supply system
KRX .......... Fluid supply system for control and protection systems
KRY .......... Control and protection system
KT .......... Collection and drainage systems for liquid media
and vent systems in controlled and exclusion area
KTA .......... Collection and drainage systems for liquid media
and vent systems in controlled and exclusion area
KTX .......... Fluid supply system for control and protection systems
KTY .......... Control and protection system
KU .......... Sampling systems for liquid and gaseous media
in controlled and exclusion area
KUA .......... Sampling system for active liquid media
KUB .......... Sampling system for weak active liquid media
KUF .......... Sampling system for gaseous media
KUK .......... Activity sampling system and measuring system
KUL .......... Fault sampling system from containment atmosphere
KUX ............ Fluid supply system for control and protection systems
KUY ............ Control and protection system

KV ............ Lubricant system for loads in controlled and exclusion area
KVA ............ Lubricant system for loads in controlled and exclusion area

KW ............ Sealing fluid, flushing fluid supply for loads in controlled and exclusion area
KWA ............ Sealing fluid, flushing fluid supply for loads in controlled and exclusion area

KWX ............ Fluid supply system for control and protection systems
KWy ............ Control and protection system

KX ............ Fluid supply systems for control and protection systems
KXA ............ Fluid supply system for control and protection systems

KY ............ Control and protection systems
KYA ............ Control and protection system
L.......................... Steam, water, condensate systems
LA.................... Feedwater system
LAA................. Feedwater storage, deaeration
LAB................. Feedwater piping system
LAC................. Feedwater conveying system
LAD................. Feedwater preheating system
LAE............... High pressure water injection system
LAF............... Intermediate pressure water injection system
LAV................. Lubricant system
LAW............ Sealing fluid supply system
LAX............... Fluid supply system for control and protection systems
LAY........... Control and protection system
LB..................... Steam system
LBA............ Main steam piping system
LBB............ Hot reheat piping system
LBC............ Cold reheat piping system
LBD............ Extraction piping system
LBE............. Back-pressure piping system
LBF........... Overpressure suppression and safety device including injection and hydraulic station for safety function
LBG................ Auxiliary steam piping system
LBH................. Start-up steam system, shutdown steam system
LBJ............. Moisture separator (moisture separator/reheater)
LBK............. Main steam safety/relief system inside reactor containment for single-cycle plant
LBL............ Process steam system for flue gas treatment
LBQ............ Extraction steam piping system for feedwater preheating system
LBR............. Piping system for drive turbine
LBS............ Extraction steam piping system for main condensate preheating system
LBT............ Emergency condensing system
LBU............. Common dump line
LBV............. Lubricant system
LBW............ Sealing fluid supply system
LBX............... Fluid supply system for control and protection systems
LBY............ Control and protection system
LC ............ Condensate system
LCB .......... Main condensate piping system
LCC .......... Main condensate conveying system
LCD .......... Main condensate preheating system
LCE .......... Condensate desuperheating spray system
LCF .......... Drive turbine condensate piping system
LCG .......... Drive turbine condensate conveying system
LCH .......... Condensate system of feedwater preheating
LCJ .......... Condensate system of main condensate preheating
LCK .......... Condensate system of process steam supply
              for flue gas treatment
LCM .......... Clean drains system
LCN .......... Auxiliary steam condensate system
LCP .......... Cold condensate system including storage
              and conveyance
LCR .......... Cold condensate distribution system
LCS .......... Reheater drains system
LCT .......... Moisture separator drains system
LCV .......... Lubricant system
LCW .......... Sealing and cooling drains system
LCX .......... Fluid supply system for control and protection systems
LCY .......... Control and protection system
LD ............ Condensate polishing system
LDA .......... Transfer system condensate
LDB .......... Filtering, mechanical cleaning system
LDC .......... Aeration, gas injection system
LDD .......... Electromagnetic polishing system
LDE .......... Acid proportioning system
LDF .......... Ion exchange, reverse osmosis system
LDG .......... Evaporation system
LDH .......... Deaeration
LDJ .......... Preheating, cooling system
LDK .......... Piping system, temporary storage, conveying main fluid
LDL .......... Storage system outside fluid treatment system
LDN........... Chemicals supply system
LDP............ Regeneration, flushing system
LDQ........... Injection system for main fluid
LDR........... Flushing water and residues removal system,
               including neutralization
LDS............ Sludge thickening system
LDT............ Heating, cooling and flushing fluid distribution system
LDV............ Lubricant system
LDX............ Fluid supply system for control and protection systems
LDY............ Control and protection system

LE............... Low temperature Rankine cycle (bottoming cycle)
LEA............. Working fluid in liquid phase
LEB............. Evaporating of the working fluid
LEC............. Working fluid in steam phase
LED............. Heat transfer cycle
LEV............. Lubricant supply system
LEW............. Sealing fluid supply system
LEX............. Fluid supply system for control and protection systems
LEY............. Control and protection system

LJ............... Feedwater supply in case of requirement
                 for nuclear steam generator
LJA–LJD........ Emergency feedwater system
                 for nuclear steam generator
LJK–LJN........ Emergency feed system on feedwater side
                 of nuclear steam generator
LJV............. Lubricant system
LJW............. Sealing fluid supply system
LJX............. Fluid supply system for control and protection systems
LJY............. Control and protection system

LN............... Impounding system for hydro power plant
LNA............. Head and tail race system, storage system
LNB............. Primary cleansing, debris barrier system
LNC............. Dam, weir system
LND............. Spillway system
LNE............. Drain system
LNF............. Motive water conveying system
LNG ............ Extraction system for external consumers
LNH............ Brook flume
LNV............ Lubricant system
LNW............ Sealing fluid supply system
LNX............ Fluid supply system for control and protection systems
LNY............ Control and protection system

LP ............. Head water system for hydro power plant
LPA............ Primary cleansing, debris barrier system
LPB............. Isolating system
LPC............ Piping system
LPE............ Surge tank
LPG............ Extraction system for external consumers
LPV............ Lubricant system
LPW............ Sealing fluid supply system
LPX............ Fluid supply system for control and protection systems
LPY............ Control and protection system

LQ ............. Tail water system for hydro power plant
LQA............ Piping system
LQB............ Surge tank
LQC............ Isolating system
LQE............ Rake and rake cleaning system
               for pumped-storage operation
LQG............ Extraction system for external consumers
LQV............ Lubricant system
LQW............ Sealing fluid supply system
LQX............ Fluid supply system for control and protection systems
LQY............ Control and protection system

LR ............. Osmosis pressure system
LS ............. Common systems for hydro power plant
LX ............. Fluid supply systems for control and protection systems
LY ............. Control and protection systems
M................ Systems for conversion of energy
(without heat generation) and for transmission
of electrical energy

MA ............. Steam turbine system
MAA .......... High pressure turbine
MAB .......... Intermediate pressure turbine
MAC .......... Low pressure turbine
MAD .......... Bearing
MAG .......... Condensing system
MAH .......... Motive water system
MAJ .......... Air removal system (evacuation)
MAK .......... Transmission gear including shaft turning gear
MAL .......... Drain and vent system
MAM .......... Leak-off steam system
MAN .......... Turbine bypass station,
              including desuperheating spray system
MAP .......... Low-pressure bypass
MAQ .......... Vent system
MAV .......... Lubricant system
MAW .......... Sealing, heating and cooling steam system
MAX .......... Non-electric control and protection system,
              including fluid supply system
MAY .......... Electrical control and protection system

MB ............. Gas turbine system
MBA .......... Turbine rotor, compressor rotor incl. common casing
MBB .......... Turbine casing and rotor
MBC .......... Compressor casing and rotor
MBD .......... Bearing
MBE .......... Coolant system for gas turbine
MBH .......... Cooling and sealing gas system
MBJ .......... Start-up system
MBK .......... Transmission gear including shaft turning gear,
              drive system
MBL .......... Intake air, cold gas system
MBM .......... Combustion chamber (fuel heating, combustion)
MBN .......... Fuel feeding system (liquid)
MBP .......... Fuel feeding system (gaseous)
MBQ .......... Ignition fuel feeding system
MBR ............ Exhaust gas system (open cycle)
MBS ............ Storage system
MBT ............ Motive gas generation, including combustion chamber
MBU ............ Additive system
MBV ............ Lubricant system
MBW ............ Sealing fluid supply system (seal oil system)
MBX ............ Non-electric control and protection system
MBY ............ Electrical control and protection system
MBZ ............ Lubricant and control fluid treatment system

MD .............. Wind turbine system
MDA ............ Rotor system
MDK ............ Drive train system
MDL ............ Yaw system
MDV ............ Lubricant system
MDX ............ Hydraulic system
MDY ............ Control and protection system

ME .............. Hydraulic turbine system
MEA ............ Turbine
MEB ............ Isolating system
MED ............ Bearing
MEG ............ Stabilizing air system
MEK ............ Transmission gear
MEL ............ Water depression air supply system
MES ............ Shaft gland cooling water system
MEV ............ Lubricant system
MEW ............ Sealing fluid supply system
MEX ............ Non-electric control and protection system
MEY ............ Electrical control and protection system

MF ............ Pump turbine system in pumped-storage power plant
MFA ............ Pump turbine, pump and turbine as a physical unit
MFB ............ Isolating system
MFD ............ Bearing
MFG ............ Stabilizing air system
MFK ............ Transmission gear
MFL ............ Water depression air supply system
MFM ............ Start-up system
MFS ............ Shaft gland cooling water system
MFV ............ Lubricant system
MFW ........... Sealing fluid supply system
MFX ........... Non-electric control and protection system
MFY ........... Electrical control and protection system

**MG** ........... Storage pump system
MGA........... Storage pump
MGB........... Isolating system
MGD .......... Bearing
MGG ........... Stabilizing air system
MGK .......... Transmission gear
MGL........... Water depression air supply system
MGM.......... Start-up system
MGS......... Shaft gland cooling water system
MGV.......... Lubricant system
MGW........... Sealing fluid supply system
MGX......... Non-electric control and protection system
MGY......... Electrical control and protection system

**MJ** .......... Diesel engine system
MJA........... Engine
MJE......... Secondary cooling
MJK......... Transmission gear
MJN .......... Fuel system
MJP.......... Start-up system (including flywheel)
MJV.......... Lubricant system
MJW......... Sealing fluid supply system
MJX......... Fluid supply system for control and protection systems
MJY......... Control and protection system

**MK** .......... Generator system
MKA.......... Generator
MKC.......... Generator exciter set, including set
                 with electrical braking system
MKD .......... Bearing
MKE.......... Secondary cooling system
MKF .......... Stator/rotor primary cooling with water as a coolant
MKG.......... Stator/rotor primary cooling with hydrogen as a coolant
MKH.......... Stator/rotor primary cooling with nitrogen
                 or carbon dioxide as a coolant
MKJ.......... Stator/rotor primary cooling with air as a coolant
MKK ............ Stator/rotor primary cooling with cooling oil as a coolant
MKQ ............ Exhaust gas system
MKV ............ Lubricant system
MKW ............ Sealing fluid supply system (seal oil system)
MKX ............ Fluid supply system for control and protection systems
MKY ............ Control and protection system
ML ............. Electro-motive system (motor, motor generator)
MLA ............ Motor casing, motor-generator casing
MLC ............ Exciter set, including electrical braking
MLD ............ Bearing
MLE ........... Secondary cooling system
MLF ............ Stator/rotor primary cooling with water as a coolant
MLJ ............ Stator/rotor primary cooling with air as a coolant
MLQ ............ Exhaust gas system
MLV ............ Lubricant system
MLW ............ Sealing fluid supply system (seal oil system)
MLX ............ Fluid supply system for control and protection systems
MLY ............ Control and protection system
MN ............ Fuel cell system
MQ ............ Photovoltaic system
MR ............ Gas engine system
MS ............ Transmission
MU ............ Common system for systems for conversion of energy and for transmission of electrical energy
MV ............ Lubricant system
MW ............ Sealing fluid supply systems
MX ............ Fluid supply systems for control
MY ............ Control and protection systems
N .......................... Medium supply systems for external consumers, energy storage systems

NA ................ Process steam system including condensate return
NAA ............ Piping system (steam)
NAB ............ Piping system (condensate)
NAD ............ Heat transfer
NAW ............ Sealing fluid supply system
NAX ............ Fluid supply system for control and protection systems
NAY ............ Control and protection system

ND ................ Process hot water system
NDA ............ Piping system (forward)
NDB ............ Piping system (return)
NDC ............ Conveying system
NDD ............ Heat transfer
NDE ............ Storage system
NDF ............ Distribution system
NDK ............ Pressurizing system
NDV ............ Lubricant system
NDW ............ Sealing fluid supply system
NDX ............ Fluid supply system for control and protection systems
NDY ............ Control and protection system

NE ................ Process chilled water system
NEA ............ Piping system (forward)
NEB ............ Piping system (return)
NEC ............ Conveying system
NED ............ Heat transfer
NEE ............ Storage system
NEF ............ Distribution system
NEK ............ Pressurizing system
NEV ............ Lubricant system
NEW ............ Sealing fluid supply system
NEX ............ Fluid supply system for control and protection systems
NEY ............ Control and protection system

NQ ............ Energy storage systems
P .......... **Cooling water systems**

**PA** .......... Cooling water system 1 of the main process
**PAA** ........ Extraction
**PAB** ........ Piping and culvert system
**PAC** .......... Conveying system
**PAD** .......... Recirculation cooling system, outfall cooling system
(cooling tower)
**PAH** .......... Cleaning system for heat exchanger main process
(condenser tubes)
**PAR** .......... Make-up water system
**PAS** .......... Blowdown system
**PAV** .......... Lubricant system
**PAX** .......... Fluid supply system for control and protection systems
**PAY** .......... Control and protection system

**PB** .......... Cooling water system 2 of the main process
**PBA** ........ Extraction
**PBB** .......... Piping and culvert system
**PBC** .......... Conveying system
**PBD** .......... Recirculation cooling system, outfall cooling system
(cooling tower)
**PBH** .......... Cleaning system for heat exchanger main process
(condenser tubes)
**PBR** .......... Make-up water system
**PBS** .......... Blowdown system
**PBV** .......... Lubricant system
**PBX** .......... Fluid supply system for control and protection systems
**PBY** .......... Control and protection system

**PD** .......... Secondary cooling water system for flue gas exhaust
and treatment

**PE** .......... Cooling water system 1 of the auxiliary
and secondary processes
**PEA** ........ Extraction
**PEB** .......... Piping and culvert system
**PEC** .......... Conveying system
**PED** .......... Recirculation cooling system, outfall cooling system
(cooling tower)
**PEH** .......... Cleaning system for heat exchanger of the auxiliary
and secondary process
<table>
<thead>
<tr>
<th>System Code</th>
<th>System Description</th>
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<tbody>
<tr>
<td>PER</td>
<td>Make-up water system</td>
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<tr>
<td>PES</td>
<td>Blowdown system</td>
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<tr>
<td>PEV</td>
<td>Lubricant system</td>
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<td>PEX</td>
<td>Fluid supply system for control and protection systems</td>
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<tr>
<td>PEY</td>
<td>Control and protection system</td>
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<td>PF</td>
<td>Cooling water system 2 of the auxiliary and secondary processes</td>
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<tr>
<td>PFA</td>
<td>Extraction</td>
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<tr>
<td>PFB</td>
<td>Piping and culvert system</td>
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<tr>
<td>PFC</td>
<td>Conveying system</td>
</tr>
<tr>
<td>PFD</td>
<td>Recirculation cooling system, outfall cooling system (cooling tower)</td>
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<tr>
<td>PFH</td>
<td>Cleaning system for heat exchanger of the auxiliary and secondary process</td>
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<tr>
<td>PFR</td>
<td>Make-up water system</td>
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<tr>
<td>PFS</td>
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<td>PFV</td>
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<tr>
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<td>Fluid supply system for control and protection systems</td>
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<tr>
<td>PFY</td>
<td>Control and protection system</td>
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<tr>
<td>PG</td>
<td>Cooling water system of the auxiliary and secondary process 3</td>
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<tr>
<td>PGA</td>
<td>Extraction</td>
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<tr>
<td>PGB</td>
<td>Piping and culvert system</td>
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<tr>
<td>PGC</td>
<td>Conveying system</td>
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<tr>
<td>PGD</td>
<td>Intercooling system including drainage, venting auxiliary and intercooling water-sided</td>
</tr>
<tr>
<td>PGE</td>
<td>Pressurizing system including drainage and venting</td>
</tr>
<tr>
<td>PGH</td>
<td>Cleaning system for heat exchanger of the auxiliary and secondary process</td>
</tr>
<tr>
<td>PGR</td>
<td>Make-up water system</td>
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<td>PGS</td>
<td>Blowdown system</td>
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<td>PGY</td>
<td>Control and protection system</td>
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<tr>
<td>PH</td>
<td>Cooling water system of the auxiliary and secondary process 4</td>
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<tr>
<td>PHB</td>
<td>Piping and culvert system</td>
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<tr>
<td>PHC</td>
<td>Conveying system</td>
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</tbody>
</table>
PHD ............ Intercooling system including drainage, venting
              auxiliary and intercooling water-sided
PHE ............ Pressurizing system including drainage and venting
PHV ............ Lubricant system
PHX ............ Fluid supply system for control and protection systems
PHY ............ Control and protection system
PJ ............ Cooling water system of the auxiliary
              and secondary process 5
PJB ............ Piping and culvert system
PJC ............ Conveying system
PJD ............ Intercooling system including drainage, venting
              secondary and intercooling water-sided
PJE ............ Pressurizing system
PJV ............ Lubricant system
PJX ............ Fluid supply system for control and protection systems
PJY ............ Control and protection system
PK ............ Cooling water system of the auxiliary
              and secondary process 6
PKB ............ Piping and culvert system
PKC ............ Conveying system
PKD ............ Intercooling system including drainage, venting
              secondary and intercooling water-sided
PKE ............ Pressurizing system
PKV ............ Lubricant system
PKX ............ Fluid supply system for control and protection systems
PKY ............ Control and protection system
PU ............ Common systems for cooling water system
PUA ............ Anti-icing system
PUB ............ Fish guiding system
PUC ............ Fish guiding/keep off system
PUK ............ Biocide neutralization in cooling water cycle
PUL ............ Biocide treatment of cooling water
PUN ............ Proportioning system
PV ............ Lubricant system
PW ............ Sealing fluid supply system
PX ............ Fluid supply systems for control
PY ............ Control and protection systems
Q ................. **Auxiliary systems**

**QC** .......... Central chemicals supply

**QE** .......... Central compressed air and carrier air supply

**QEA** ........ Central compressed air and carrier air generation

**QEB** ........ Central compressed air and carrier air distribution

**QF** .......... Central control air supply

**QFA** ........ Central control air generation system

**QFB** ........ Central control air distribution system

**QG** .......... Air separation systems

**QH** .......... Auxiliary steam generating system

**QHA** ........ Pressure system

**QHB** ........ Support structure, enclosure, steam generator interior

**QHC** ........ Fireside heat transfer surface cleaning system

**QHD** ........ Ash and slag removal

**QHE** ........ Blowdown system, flash drain system

**QHF** ........ Storage, distribution and treatment of fuels

**QHG** ........ Boiler water circulation system

**QHH** ........ Main firing system (also for electric boiler)

**QHJ** ........ Ignition firing system

**QHL** ........ Combustion air system

**QHV** ........ Lubricant system

**QHX** ........ Fluid supply system for control and protection systems

**QHY** ........ Control and protection system

**QJ** .......... Central gas supply including inert gas

**QL** .......... Feedwater, steam, condensate systems

for auxiliary steam supply

**QLA** ........ Feedwater system

**QLB** ........ Steam system

**QLC** ........ Condensate system

**QLF** ........ Common system for auxiliary steam supply

**QR** .......... Flue gas exhaust and treatment

after auxiliary steam generation

**QS** .......... Central control oil supply

**QU** .......... Sampling systems
R ............... **Flue gas exhaust and treatment**
RA.............. Flue gas exhaust
RB.............. Flue gas dust removal
RC.............. Chemical flue gas treatment by adsorptive process including residues removal
RD.............. Chemical flue gas treatment by catalytic process including residues removal
RE.............. Chemical flue gas treatment by absorptive process including residues removal (excluding CO$_2$ separation)
RF.............. CO$_2$ separation
RT.............. CO$_2$ conditioning
RU.............. Flue gas reheating, flue gas drying
U ................. **Structures and areas for systems inside of the power plant process**

UA.............. **Structures and areas for electrical grid and distribution system**
UAB ............ **Structure and area for transforming, converting and switching systems**

UB.............. **Structures for electrical auxiliary power supply system**
UBA .......... **Switchgear building**
UBB .......... **Structure for common electrical and I&C systems**
UBC .......... **Structure for low voltage auxiliary power transformer**
UBD .......... **Structure for medium voltage auxiliary power transformer**
UBM .......... **Structure for power generation for safety services**
UBY .......... **Bridge structure**
UBZ.......... **Ducting structure**

UC.............. **Structures for control and management systems**
UCA .......... **Unit control room building**
UCB .......... **Control station building**
UCC .......... **Structure for process monitoring systems**
UCY .......... **Bridge structure**
UCZ.......... **Ducting structure**

UE.............. **Structures for treatment and supply of fossil and renewable energy sources including residues disposal**
UEA .......... **Structure, area for unloading and storage of solid fuels**
UEB .......... **Structure for mechanical treatment of solid fuels**
UEC .......... **Structure for solid fuel distribution**
UED .......... **Structure for chemical treatment of solid fuels including residues removal**
UEF .......... **Structure for gas generation**
UEG .......... **Structure for liquid fuel supply**
UEH .......... **Structure for chemical treatment of liquid fuels including residues removal**
UEK .......... **Structure for gaseous fuel supply**
UEL........... Structure for chemical treatment of gaseous fuels including residues removal
UEM........... Structure for supply with supplementary fuels including treatment
UEN........... Structure for supply with other fuels including treatment
UER........... Structure for ignition fuel supply
UES........... Structure for supply with additives including treatment
UET........... Structure for residues removal after heat generation by combustion
UEU........... Structure for treatment and conveyance system for residues from fuel supply, flue gas cleaning, gas generation and gas treatment
UEY........... Bridge structure
UEZ........... Ducting structure

UF............. Structures for the handling of nuclear equipment
UFA............ Structure for internal storage of fuel assemblies
UFD............ Structure for external temporary storage of spent fuel assemblies
UFE............ Structure for external temporary storage of irradiated breeder assemblies
UFH............ Structure for hot cell
UFY............ Bridge structure
UFZ............ Ducting structure

UG............. Structures for water supply/disposal and treatment
UGA............ Structure for raw water supply
UGB............ Structure for treatment by decarbonization including cooling tower make-up water treatment
UGC............ Structure for treatment by demineralization
UGD............ Structure for treatment of additional process water qualities
UGH............ Structure for service water distribution system
UGJ............ Structure for demineralized water distribution system
UGM............ Structure for collection and drains system for process drains
UGN............ Structure for process drains treatment system
UGY............ Bridge structure
UGZ............ Ducting structure
**UH**.......... Structures for heat generation by combustion of fossil and renewable energy sources and heat recovery from natural energy sources

**UHA**......... Structure for steam generators (boilerhouse)

**UHD**......... Structure for ash and slag removal

**UHF**......... Bunker bay

**UHL**......... Structure for combustion air system (secondary air)

**UHP**......... Structure for geothermal systems

**UHQ**......... Structure for solar thermal systems

**UHY**......... Bridge structure

**UHZ**......... Ducting structure

**UJ**.......... Structures for nuclear heat generation

**UJA**......... Reactor building interior

**UJB**......... Reactor building annulus

**UJC**......... Heat exchanger building

**UJD**......... Steam generator building

**UJE**......... Main steam and feedwater valve compartment

**UJF**......... Structure for system airlock

**UJG**......... Gantry (reactor building)

**UJY**......... Bridge structure

**UJZ**......... Ducting structure

**UK**.......... Structures for reactor auxiliary systems

**UKA**......... Reactor auxiliary building

**UKB**......... Reactor ancillary systems building

**UKC**......... Nuclear services building

**UKD**......... Emergency standby structure

**UKH**......... Structure for air exhaust

**UKJ**......... Tritium extraction system building

**UKS**......... Processing building for radioactive waste

**UKT**......... Structure for radioactive waste storage

**UKY**......... Bridge structure

**UKZ**......... Ducting structure

**UL**.......... Structures for steam, water, condensate systems

**ULA**......... Structure for feedwater system

**ULC**......... Structure for condensate system

**ULD**......... Structure for condensate polishing plant

**ULF**......... Structure for air condensation
ULJ ............. Structure for feedwater supply in case of requirement for nuclear steam generator
ULK ............. Structure for closed gas system
ULN ............. Structure for hydro power plant

water impounding systems
ULP ............. Structure for hydro power plant intake system
ULQ ............. Structure for hydro power plant tail-race system
ULY ............. Bridge structure
ULZ ............. Ducting structure

UM .............. Structures for systems for conversion of energy and for transmission of electrical energy
UMA ............. Structure for steam turbine system (turbine building)
UMB ............. Structure for gas turbine system (turbine building)
UMC ............. Structure for combined turbine systems
UMD ............. Structure for wind turbine system
UME ............. Structure for hydro turbine system
UMF ............. Structure for conveyance turbine system
UMG ............. Structure for pumped-storage conveyance system
UMH ............. Structure for steam engine system
UMJ ............. Structure for diesel engine system
UMN ............. Structure for fuel cell system
UMQ ............. Structure for photovoltaic system
UMR ............. Structure for gas engine system
UMS ............. Structure for transmission of electrical energy
UMY ............. Bridge structure
UMZ ............. Ducting structure

UN .............. Structures for medium supply for external consumers, energy storage systems

UP .............. Structures for cooling water systems
UPA ............. Structure for cooling water intake and supply (direct cooling)
UPB ............. Structure for cooling water mechanical cleaning
UPC ............. Structure for cooling water conveyance
UDP ............. Structure for cooling water intake and supply
UPE ............. Structure for cooling water mechanical cleaning
UPF ............. Structure for cooling water conveyance
UPG ............. Structure for cooling tower
UPH .......... Structure for cooling water recirculation and outfall cooling system
UPJ .......... Structure for cooling tower
UPK .......... Structure for cooling water recirculation and outfall cooling system
UPL–UPM... Structure for cooling water return, overflow, surge tank, seal well, outlet
UPN .......... Structure for biocide preparation and cooling water biocide treatment
UPP .......... Structure for alternative cooling systems
UQ .......... Structures for auxiliary systems
UQA .......... Structure for sampling systems
UQC .......... Structure for central chemical supply
UQE .......... Structure for central compressed air and carrier air supply
UQF .......... Structure for central control air supply
UQG.......... Structure for air separation systems
UQH.......... Structure for auxiliary steam generation
UQJ.......... Structure for central gas supply, including inert gas supply
UQL .......... Structure for feedwater, steam, drains systems for auxiliary steam supply
UQS .......... Structure for central control oil supply
UR .......... Structures and areas for flue gas exhaust and treatment
UU .......... Structures and areas for several systems
UY .......... Bridge structures
UZ .......... Ducting structures
V ............ Systems for storage of materials or goods
VA ........... System for storage of spare-, reserve- and wear parts
VAA .......... System for storage of spare-, reserve- and wear parts
VAB .......... System for storage of spare parts
VAC ........... System for storage of reserve parts
VAD .......... System for storage of wear parts

W ............ Systems for administrative or social purposes or tasks
WA ........... Systems for administrative purposes or tasks
WAA .......... Sanitary facilities
WB ........... Systems for administrative purposes or tasks
WBA .......... System for rescue and safety of persons
Ancillary systems

Ventilation and air-conditioning systems
Central ventilation and air-conditioning system
Ventilation and air-conditioning system in structures for electrical auxiliary power supply

Heating systems

Compressed air systems
Generated compressed air system
Compressed air distribution system

Cleaning systems (excluding nuclear)

Welding gas systems

Equipotential bonding systems

Fire extinguishing systems

Waterway systems
Intake system (upstream)
Lock chamber including chamber filling and emptying system
Lock chamber gate (upstream)
Discharge system (downstream)
Anti-icing system
Ship impact system
Leakage drain system
Drain system
Minimum water system
Fish ladder
Raft canal
Lubricant system
Sealing fluid supply system
Fluid supply system for control and protection systems
Control and protection system

Mobile system for people and material transport
Mobile system for people transport
Mobile system for material transport
System for material transport
**Chilled water systems**

**Central chilled water generation**

**Central chilled water conveyance and distribution**

**Potable water systems**

**Crane assemblies, stationary hoists and inspection equipment**

**Mobile system**

**Elevator systems**

**Railway installations**

**Rail system**

**Contact line system including power supply**

**Rail safety service, including safety services for crossings**

**Marshalling system**

**Rail signal system**

**Control and protection system**

**Systems for workshops and laboratories in nuclear controlled area**

**Hot workshop system**

**Maintenance area in nuclear controlled area**

**Hot laboratory system**

**Health physics laboratory system**

**Control and protection system**

**Safety services**

**Access control system**

**Video monitoring system**

**Intrusion detection system**

**Obstruction warning device**

**Systems for factory, petrol station, garage, laboratory**

**Systems for factory**

**System for garages and equipment refueling**

**Systems for garage**

**Systems for laboratory**

**Sanitary waste water systems**

**Rainwater systems**

**Systems for setting and removal from operating fluids**
Y ............... Communication and information systems
YA ............... Communications systems
YB ............... Information systems
YC ............... IT network

Z ............... Structures and areas for systems outside of the power plant process
ZV ............... Structures and surfaces for storage of material and goods
ZW ............... Structures for administrative tasks or staff amenities
ZX ............... Structures for ancillary systems
ZY ............... Structures for communications and information
ZZ ............... Structures and surfaces for conveyance and traffic, fencing, gardens and other purposes
Letter Codes for Basic Functions and Product Classes  
(Excerpt from VGB-B 102)

Main classes

<table>
<thead>
<tr>
<th>Letter code</th>
<th>Intended purpose or task of object</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Two or more purposes of tasks</td>
</tr>
<tr>
<td>B</td>
<td>Conveying an input variable</td>
</tr>
<tr>
<td></td>
<td>(physical property, condition or event)</td>
</tr>
<tr>
<td></td>
<td>into a signal for further processing</td>
</tr>
<tr>
<td>C</td>
<td>Storing of material, energy or information</td>
</tr>
<tr>
<td>D</td>
<td>Reserved for further standardization</td>
</tr>
<tr>
<td>E</td>
<td>Providing radiant or thermal energy</td>
</tr>
<tr>
<td>F</td>
<td>Direct protection (self-acting) of a flow of energy, signals, personnel or equipment from dangerous or unwanted conditions. Including systems and equipment for protective purpose.</td>
</tr>
<tr>
<td>G</td>
<td>Initiating a flow of energy or material. Generating signals used as information carriers or reference source.</td>
</tr>
<tr>
<td>H</td>
<td>Producing a new kind of material or product</td>
</tr>
<tr>
<td>I</td>
<td>Not to be applied</td>
</tr>
<tr>
<td>J</td>
<td>Reserved for further standardization</td>
</tr>
<tr>
<td>K</td>
<td>Processing (receiving, treating and providing) signals or information (excluding objects for protective purposes; see class F)</td>
</tr>
<tr>
<td>L</td>
<td>Reserved for further standardization</td>
</tr>
<tr>
<td>M</td>
<td>Providing mechanical energy (rotational or linear mechanical motion) for driving purposes</td>
</tr>
<tr>
<td>N</td>
<td>Reserved for further standardization</td>
</tr>
<tr>
<td>O</td>
<td>Not to be applied</td>
</tr>
<tr>
<td>P</td>
<td>Presenting information</td>
</tr>
</tbody>
</table>
Q ................. Controlled switching or varying a flow of energy, of signals or of material (For signals in control circuits see class K and S)

R ................. Restricting or stabilizing motion or a flow of energy, information or material

S ................. Converting a manual operation into a signal for further processing

T ................. Conversion of energy maintaining the kind of energy. Conversion of an established signal maintaining the content of information. Conversion of the form or shape of a material.

U ................. Keeping objects in a defined position

V ................. Processing (treating) of material and products (including preparatory and post-treatment)

W ................. Guiding or transporting energy, signals, material or products from one place to another

X ................. Connecting objects

Y ................. Reserved for further standardization

Z ................. Reserved for further standardization
Object keys

<table>
<thead>
<tr>
<th>Code number</th>
<th>Denomination</th>
</tr>
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<tbody>
<tr>
<td>10000</td>
<td>Overall management</td>
</tr>
<tr>
<td>20000</td>
<td>Overall technology</td>
</tr>
<tr>
<td>30000</td>
<td>Civil engineering</td>
</tr>
<tr>
<td>40000</td>
<td>Electrical engineering</td>
</tr>
<tr>
<td>50000</td>
<td>Instrumentation and control engineering</td>
</tr>
<tr>
<td>60000</td>
<td>Mechanical engineering</td>
</tr>
</tbody>
</table>

Code letters for the technical areas

<table>
<thead>
<tr>
<th>Code letter</th>
<th>Technical area</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Overall management</td>
</tr>
<tr>
<td>B</td>
<td>Overall technology</td>
</tr>
<tr>
<td>C</td>
<td>Construction engineering</td>
</tr>
<tr>
<td></td>
<td>(building construction and civil engineering)</td>
</tr>
<tr>
<td>E</td>
<td>Electrical engineering, instrumentation</td>
</tr>
<tr>
<td></td>
<td>and control engineering (including information</td>
</tr>
<tr>
<td></td>
<td>and communication techniques)</td>
</tr>
<tr>
<td>M</td>
<td>Mechanical engineering</td>
</tr>
<tr>
<td></td>
<td>including process engineering</td>
</tr>
<tr>
<td>Code</td>
<td>Document kind main class according to IEC 61355-1</td>
</tr>
<tr>
<td>------</td>
<td>---------------------------------------------------</td>
</tr>
<tr>
<td>A</td>
<td>Documentation describing documents</td>
</tr>
<tr>
<td>B</td>
<td>Management documents</td>
</tr>
<tr>
<td>C</td>
<td>Contractual and non-technical documents</td>
</tr>
<tr>
<td>D</td>
<td>General technical information documents</td>
</tr>
<tr>
<td>E</td>
<td>Technical requirement and dimensioning documents</td>
</tr>
<tr>
<td>F</td>
<td>Function describing documents</td>
</tr>
<tr>
<td>L</td>
<td>Location documents</td>
</tr>
<tr>
<td>M</td>
<td>Connection describing documents</td>
</tr>
<tr>
<td>P</td>
<td>Object listings</td>
</tr>
<tr>
<td>Q</td>
<td>Quality management documents; safety-describing documents</td>
</tr>
<tr>
<td>T</td>
<td>Geometry-related documents</td>
</tr>
<tr>
<td>W</td>
<td>Operation records</td>
</tr>
</tbody>
</table>
VGB-Standards for RDS-PP®
Reference Designation System for Power Plants (2020)

- VGB-S-821-00-2016-06-EN, 4. edition, System key
- VGB-B 102 d/e, Letter Codes for Basic Functions and Product Classes
- VGB-S-832-00-2016-04-DE-EN, Designation codes for document kind classification code
- VGB-S-823-31-2014-12-EN-DE, Application Guideline, Hydro Power Plants
- VGB-S-823-41-2018-07-EN-DE, Application Guideline, Power to Gas

Detailed information about the mission and activities of the international technical association of energy plant operators, VGB PowerTech e.V., are available here:
