KKS
Identification System for Power Stations

ALSTOM

Power Turbo-Systems

This booklet serves as an information tool about the KKS identification system for all types of power plants with the exception of nuclear power systems.

It is not intended and it is not suitable as an instruction manual for KKS codification.

For this purpose, please refer to project-specific "KKS Guidelines and Keys".

KKS – GUIDELINES AND KEYS

Table of Contents

1. KKS-INTRODUCTION (IDENTIFICATION SYSTEM FOR POWER STATIONS)

1.1 Purpose and Area of Application

The power plant identification system is applied to clearly identify plants, systems, parts and components to their purpose, type and location.

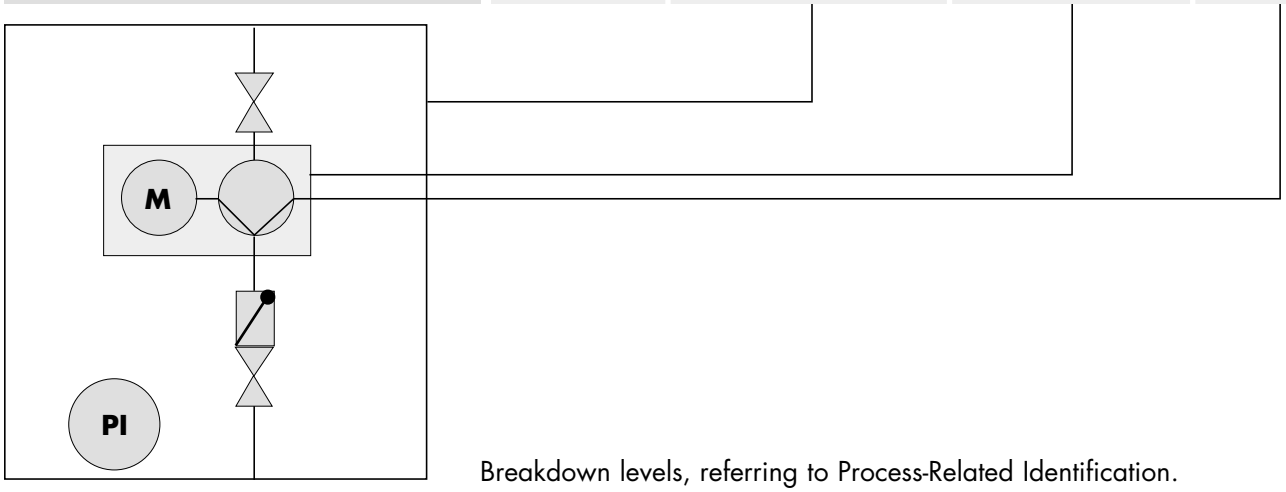
The content is in accordance with "KKS Identification Systems for Power Stations " issued by VGB PowerTech Service GmbH Essen, Germany.

1.2 Requirements

In order to perform the set tasks the identification system must be capable of satisfying the following requirements:

- Uniform identification for all types of power stations and any connected processes
- Sufficient capacity and detail for identification of all systems, components and structures
- Sufficient capacity for extension to accommodate new technologies
- Consistent identification for planning, licensing, construction, operation, maintenance and waste management
- Interdisciplinary applicability to mechanical engineering, civil engineering, electrical and instrument & control engineering combined with ability to identify according to process functions, points of installation and locations
- Consideration of national and international standards
- Non-language-based coding to ensure international usability
- Application in computer data processing.

Serial number of breakdown level	0	1	2	3
Name of breakdown level	Total plant	Function	Equipment unit	Component
Example	Unit 1	Feedwater system	Pump unit	Pump



Breakdown levels, referring to Process-Related Identification.

1.3 Structure and Application

The KKS consists of three types of identification:

- The **process-related code** identifies installations and equipment according to their assigned task in the power plant process
- The **point of installation code** identifies the points of installation within an installation unit (e.g. cubicles, consoles, panels)
- The **location code** identifies the rooms and floors, or other installation sites for installations and equipment in building structures.

A uniform identification structure, with a maximum of four breakdown levels, was created for all three types; the units referred to becoming smaller from left to right.

1.3.1 Identification and Type of Data Characters

Table 1 summarizes the identification and type of data characters of the breakdown levels for all three different types of identification appearing in the KKS.

1.3.2 Process-Related Identification

In this type of identification the entire system is subdivided according to the function or process, since, whether for mechanical, electrical, control or civil engineering, the equipment units and components must be identifiable in relation to the process.

The process-related identification is for many applications the most important identification, since it permits, for example, identification of electrical and control equipment, signals, and the identification in circuit diagrams related to particular functions.

In the electrical and instrumentation & control (I&C) engineering sectors, the equipment for auxiliary services, power supply, open-loop-control, instrumentation, protection, etc., is treated as a process engineering function. The same applies to structures in civil engineering work.

The process-related identification corresponds to the identification block "Plant" in DIN 40719, part 2. This block has the prefix sign "=". According to the standard, the prefix sign can be omitted provided that the identification remains unambiguous.

Serial number of breakdown level	0	1	2	3
Name of break-down level	Total Plant	Function	Equipment Unit	Component
Designation of data character	G	F_0 F_1 F_2 F_3 F_n	A_1 A_2 A_N A_3	B_1 B_2 B_N
Type of data character	(A) or (N)	(N) A A A NN	A A NNN (A)	A A NN

A = Alphabetical symbols (letters, special symbols)
N = Numerical symbols (digits)
() = These data characters may be omitted

1.3.3 Point of Installation Identification

As with the process-related identification, the KKS is also used to identify locations, principally of electrical and I&C equipment, but also of mechanical equipment. Locations - for example, coordinates, racks and positions in cubicles etc. - are identified in the breakdown level **EQUIPMENT UNIT.**
The identification letters now used for the point of installation identification in the breakdown level **FUNCTION** may be the same as those for the process-related identification. This improves recognition of the identification in the overall system. In order to prevent possible confusion between process-related identification and point of installation identification the prefix sign "+" must be added to the point of installation code (according to DIN 40719, part 2). Resp. the breakdown symbol "full stop" between breakdown Level 1 and 2 must be used. This prefix sign may be omitted only when there is absolutely no ambiguity – e.g. in layout documents.

1.3.4 Location Identification

In order to clearly identify the position of plants, sub-systems and equipment in the power station, the code of building structure and floor is entered at the breakdown level **FUNCTION** and the rooms on the various floors of the building structure at the breakdown level **EQUIPMENT UNIT.** The breakdown level **COMPONENT** is not used in location identification.
Fire protection sections are identified according to the room identification.

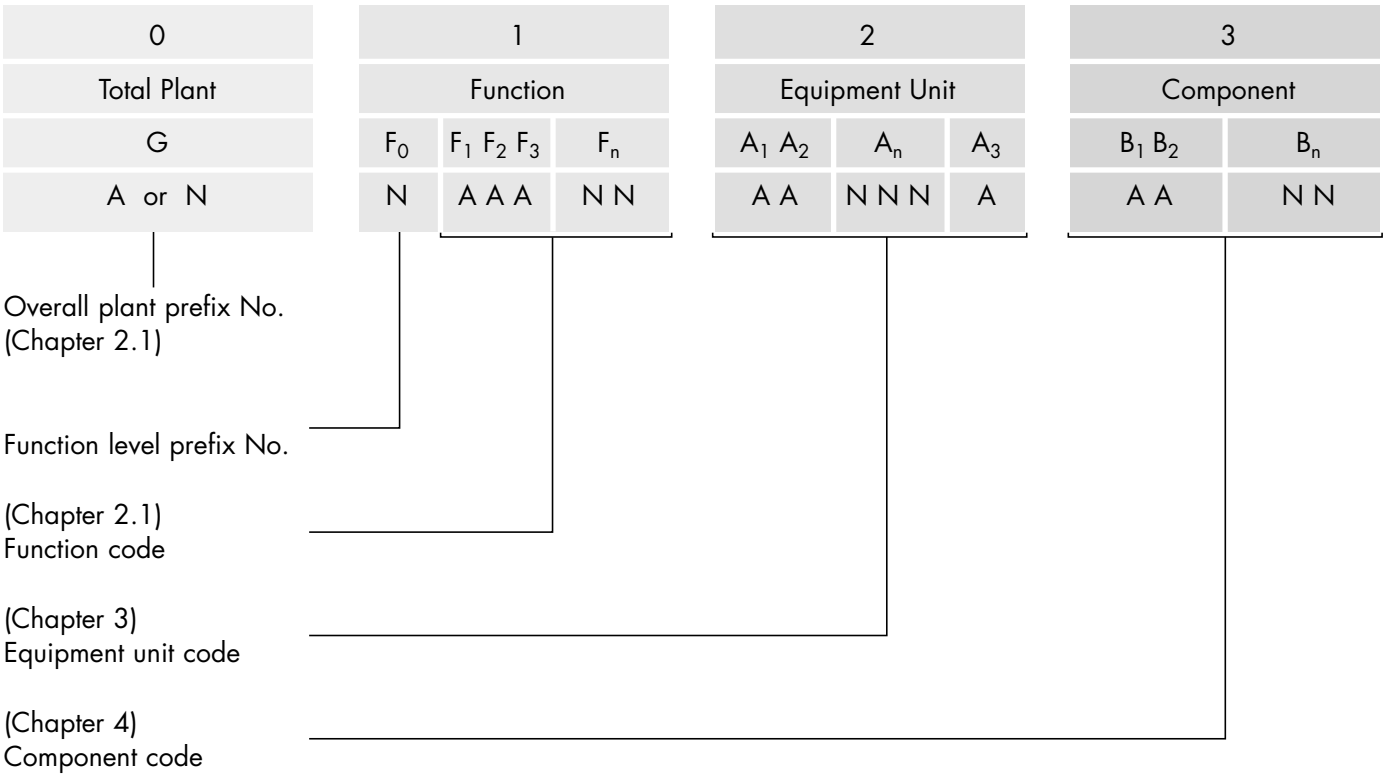
1.3.5 Title and Contents of the Breakdown Levels

Breakdown levels	0 Total plant	1 Function	2 Equipment unit	3 Component
Process-related code	Total plant	System code	Equipment unit code	Component code
Mechanical engineering	Unit	System	Pump unit	(Pump)
Civil engineering	Unit Unit	Structure, floor Structure, floor	Rolling door Fan unit	(Motor) (Fan)
Control and instrumentation (for mechanical and civil engineering)	Unit Unit Unit Unit	System Structure, floor System Unit coordinate level	Measuring circuit Measuring circuit Open-loop control Closed-loop control	Transducer Temp. sensor Push-button Controller
Electrical and control and instrumentation engineering	Unit Unit Unit Unit Unit Unit	Switchgear Transformer Transformer Transformer Elect. Equipment cab. Structure, floor	Switchgear assembly Fan unit Measuring circuit Terminal box Measuring circuit Junction box	Fuse Motor Indicator Terminal block Smoke detector Telephone jack
Point of installation	Total plant	Installation unit code	Installation space code	
Electrical and control & instrumentation engineering	Unit Unit Unit	Switchgear Elect. Equipment cab. Control console	Tier/Space Tier/Space Coordinates	
Location code	Total plant	Structure code	Room code	
Civil engineering	Unit Unit	Structure, floor Outdoor area	Room/coordinates Coordinates	

1.4 Structure and Contents of the Breakdown Levels

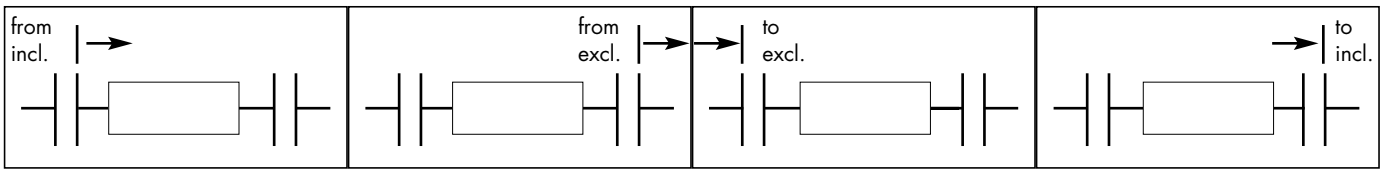
1.4.1 General

The KKS is divided into different **BREAKDOWN LEVELS** and codes from left to right in diminishing order of the units of a complete power plant:



(Chapter 5)

Systems and sub-systems limit descriptions in the breakdown level Function are part of the function code list. Where they are not defined, the beginning of a new system is at branch-off or outlet of other system or at a point where unequivocal allocation of a component to a system is possible.



Legend for the limits:

"from incl."	means "including"	the mentioned component
"from excl."	means "excluding"	the mentioned component
"to excl."	means "excluding"	the mentioned component
"to incl."	means "including"	the mentioned component

1.4.2 Breakdown Level "Function"

Function identification:

Serial No. of breakdown level	1					
Name of the breakdown level	Function					
Identification of data character	F_0	F_1	F_2	F_3	F_n	
Type of data character	N	A	A	A	N	N

- Function level prefix N_0
- Main group F_1
- System group F_1 F_2
- System F_1 F_2 F_3
- Sub-system F_n

Function Key, main groups F_1: (Only the main groups for steam plants and combined cycle power plants are considered in this document)

Code	Identification
A	GRID AND DISTRIBUTION SYSTEMS
B	POWER TRANSMISSION AND AUXILIARY POWER SUPPLY
C	INSTRUMENTATION AND CONTROL EQUIPMENT (Identification on a priority basis according to main, instrumentation and control function also acceptable in composite structure hardware packaging systems.)
E	CONVENTIONAL FUEL SUPPLY AND RESIDUES DISPOSAL
G	WATER SUPPLY AND DISPOSAL
H	CONVENTIONAL HEAT GENERATION
L	STEAM, WATER, GAS CYCLES
M	MAIN MACHINE SETS
P	COOLING WATER SYSTEMS
Q	AUXILIARY SYSTEMS
S	ANCILLARY SYSTEMS
T	- blocked -
U	STRUCTURES
Z	WORKSHOP AND OFFICE EQUIPMENT

For complete function code list including system limits of function groups F_1F_2 and function subgroups $F_1F_2F_3$ see Function Key (chapter 3).

1.4.3 Breakdown Level "Equipment Unit"

Equipment unit identification:

Serial No. of breakdown level	2		
Name of the breakdown level	Equipment Unit		
Identification of data character	A_1 A_2	A_n	A_3
Type of data character	A A	N N N	N N

- Main groups of equipment units A_1
- Sub-groups of equipment units A_2
- Numbering equipment units
- Additional code

Equipment Unit Key, groups A_1:

Code	Identification
A	MECHANICAL EQUIPMENT
B	MECHANICAL EQUIPMENT
C	DIRECT MEASURING CIRCUITS
D	CLOSED-LOOP-CONTROL CIRCUITS
E	ANALOG AND BINARY SIGNAL CONDITIONING
F	INDIRECT MEASURING CIRCUITS
G	ELECTRICAL EQUIPMENT
H	SUB-ASSEMBLIES OF MAIN AND HEAVY MACHINERY

For complete equipment units code of the sub-groups A_1 A_2 see Equipment Unit Key (chapter 4)

1.4.4 Breakdown Level "Component"

Component identification:

Serial No. of breakdown level	3		
Name of the breakdown level	Component		
Identification of data character	B_1 B_2	B_n	
Type of data character	A A	N N	

- Main groups of components B_1
- Sub-groups of components B_2
- Numbering components

Component code main groups B_1:

Code	Identification
K	MECHANICAL COMPONENTS
M	MECHANICAL COMPONENTS
Q	INSTRUMENTATION AND CONTROL COMPONENTS (Non electrical)
-	ELECTRICAL COMPONENTS
X	SIGNAL ORIGIN
Y	SIGNAL APPLICATION
Z	GATED SIGNALS

For complete component code of the sub-groups B_1 B_2 see Component Key (chapter 5). In P&IDs breakdown level 3 is NOT used. In other documents it may be used according to separate agreements.

1.4.5 Overview

Serial No. of breakdown level	0	1			2			3	
Name of breakdown level	Total Plant	Function			Equipment Unit			Component	
Identification of data character	G	F_0	F_1 F_2 F_3	F_n	A_1 A_2	A_n	A_3	B_1 B_2	B_n
Type of data character =	A or N	(N)	AAA	NN	AA	NNN	(A)	AA	NN

- Prefix sign of process related identification
- Identification of power station units and non-unit specific plants
- Prefix No. of the function code Numbering of similar systems and plants in the parts of power station identified on breakdovn level 0
- System-classifying Classifying sub-division of systems and plants of a unit as per Function key
- System-numbering Numbering sub-division of systems and plants into sub-systems and sections of plants
- Equipment-classifying Classifying sub-division of mechanical, electrical and I&C equipment as per Equipment unit key
- Equipment-numbering Numbering of similar mechanical, electrical and I&C equipment
- Additional identification of breakdown level 2 Identification of pilot valves, multiple drives/el. loads, measuring points with multiple output/operating points
- Component-classifying Classifying sub-division of components, signals or signal-applications
- Component-numbering Numbering of components, signals or signal-applications

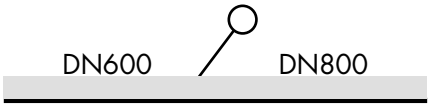
The data character marked ( ) and the prefix sign can be omitted if the identification remains unequivocal.

1.5 KKS Relevant Symbols in P&ID's and Principle Sketches

In P&IDs the following symbols to indicate KKS code and limit functions and piping sections are recommended:

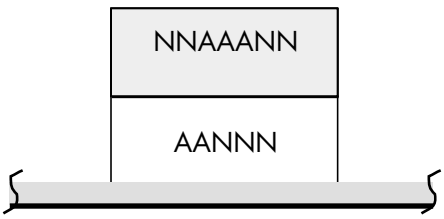
The symbol "pin with empty head" is used to identify the limits of functions and sub-functions.
(G F_0 F_1 F_2 F_3 F_N)

The symbol "pin with full head" is used to identify the limits of piping sections.
(A_1 A_2 A_N)

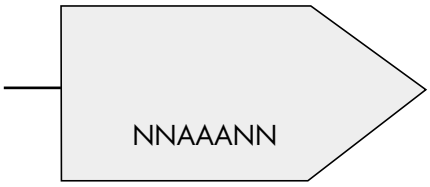


Reducers are assigned to the piping with the larger diameter.
They need not be shown on flow diagrams.
(see KKS Application Commentaries Part B1, page 52)

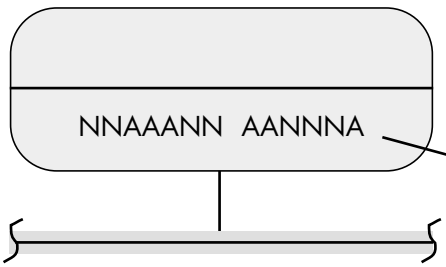
The symbol "flag" is used for the identification of pipings.
The direction of the flag shows the direction of the medium flow.



The extended "flag" symbol is used for the identification of a pipe where medium flow direction alters according to the operating condition.



The symbol pointer between connected systems represented on different P&IDs.
Breakdown level Function of the connected system as a minimum information.



The symbol "I & C - circuits" (DIN 19227, sheet 1)

→ is used to represent measuring circuits.

KKS-code for measuring circuits.

2. PROJECT RELATED RULES, AGREEMENTS AND PROCEDURES

2.1 Agreement on Breakdown Level "G" – Overall Plant and F_0 – Function Prefix Number

It may be necessary to identify units, non-unit specific plants or extension stages wihin a power station, such that a clear and unambiguous distinction exists between them. This is provided by breakdown level 0 – Overall plant. This identification must be agreed upon by all parties concerned, regarding the contents and and typre of data character (A or N). Especially the identification of existing units has to be taken into account.
The breakdown level "Overall plant" can be omitted when the designation remains unambiguous.
If in the overall plant two or more identical plants or systems are to be identified (e.g. 2 boiler plants, 2 gas turbines with attached el. generators and HRSGs, 2 structures with equal purpose) the prefix number F_0 is used to distinguish between them. Each F_0 number is valid only in the area of the function concerned. On no accounts it to be considered for the counting of system sections as parallel lines, data characters F_N being used for this purpose.

2.2 General Rules on Numbering Code Elements (F_N, A_N, B_N)

- Numbering starts anew when one of the preceding code elements changes.
- Numbering may be consecutive or grouping.
- Numbering need not be continuous.

- Numbering conventions, once established, may not be altered, not even in the event of changes made in the progress of planning.
- Redundant zeros must be written.
- An application-specific scheme of numbering may be established. However, it has to be valid throughout all project disciplines in order of an unequivocal understanding of the code.
- Management systems (e.g. computer checking programs, allocation sheets) have to assure, that no **double KKS numbers** occur in the project and that no multiple KKS numbers are assigned to one item.
- If necessary, subdivisions of number ranges in F_N according to the division of work could be made. They have to be written down directly in the project-related Function key and must be respected by the partners involved.

2.3 General Rules Regarding Direction of Numbering

- Standard identifications have priority **in all cases.**
- Numbers are increasing in **media** or process **flow** direction.
- Project counting directives referred to local layouts are **related** to breakdown level "G", prefix number for **system code "F_0"** and structures (F_1 = U) **only.**
- The counting is **not** related to **any geographical direction** (e.g. **not** from west to east, **not** from north to south)

2.4 Rules on Modifications and Cancellations of KKS Numbers

- It is **not** allowed to change allocated KKS numbers for a project, if these numbers have been **released** for the project.
- The original KKS number is still kept, even when another kind of equipment is used, provided that the function according to the KKS equipment unit code is not changed (e.g. substitution of a gate valve by a globe valve).

2.5 Writing Modus of KKS Code

Following structures of the KKS code are allowed:

- in one line with space between Function Level, Equipment Unit Level (and Component Level).
  e.g.
  19PAB10 AP001 (-M01)
- in two (three) lines
  e.g. **19PAB10**
  AP001
  (-M01)

2.6 General Rules on Process-related Identification

- Piping & Instrument Diagrams (P&ID) are the basic

documents (origins) for a process-related KKS coding.
– Single line diagrams are the basic documents (origins) for a process-related KKS coding in electrical engineering. However, KKS codes for electrical consumers, measuring loops and items of I & C represented in Function Diagrams are originated in P&IDs.
– For other engineering activities (e.g. component engineering), KKS code must always be taken from the above mentioned basic documents.
– In basic KKS documents (P&IDs, single line diagrams and site layouts) the break down level 3 (component code) is **never used**.
– The detailed KKS coding in process-related identification has to be made according to the KKS-Application Commentaries, Part B1, B3 and B4 by VGB PowerTech GmbH.

2.7 Rules on A_N Numbering for Piping and In-Pipe-Components

Serial No. NNN	Application for
001-199	Piping and in-pipe-components incl. instruments for main media/systems*)
201-299	Piping and in-pipe-components incl. instruments in discharge, drains and venting
301-399	1st isolation valves in instrument lines
401-499	Piping and isolation valves between technological and sampling & dosing systems
501-599	Piping and in-pipe-components incl. instruments for testing functions
601-699	Piping and in-pipe-components incl. instruments for heating and maintaining heat
701-799	Piping and in-pipe-components incl. instruments for special purposes:
701-719	– N_2 purging / conservation connections
720-749	– Water / Steam purging (e.g. temporary blow-out)
750-779	– Compensators
780-789	– Hydro tests
790-799	– Free for project-specific allocations; documented agreement necessary
801-899	Piping and in-pipe-components incl. instruments for special purposes:
801-819	– Hydraulic control piping and in-pipe-components
820-829	– Temporary flushing piping
830-899	– Free for project-specific allocations; documented agreement necessary
901-999	Indirect measuring circuits (according to Application Commentaries B4, Chpt. 2.1.2.2)

*) Main media / system = in F_1, F_2, F_3 (F_N) identified system with its media; e.g. LAB(95) = High pressure feedwater piping system

Note: Special rules on point of installation identification and location identification have to be established within the relevant engineering disciplines (electrical, I&C and civil engineering) according to the KKS-Application Commentaries, Part B2, B3 and B4 by VGB PowerTech GmbH.

The KKS basic documents for these types of KKS code have to be identified as well.

3. KKS FUNCTION KEY (F_1 F_2 F_3)

Table of Contents

A

GRID AND DISTRIBUTION SYSTEMS

AB > 420 kV systems.

AC 380 (420) kV systems.

AD 220 - 359 kV systems.

AE 110 - 219 kV systems.

AF 60 - 109 kV systems.

AG 45 - 59 kV systems.

AH 30 - 44 kV systems.

AJ 20 - 29 kV systems.

AK 10 - 19 kV systems.

AL 6 - 9 kV systems.

AM 1 - 5 kV systems.

AN < 1 kV systems.

AP Control consoles.

AQ Measuring and metering equipment.

AR Protection equipment.

AS Decentralized panels and cabinets.

AT Transformer equipment.

AU Open-loop control, checkback and auxiliary equipment.

AV Marshalling racks.

AW Instrument panels.

AX Central equipment.

AY Communication equipment.

AB > 420 kV systems.

- **ABA >420 kV systems.** (diameter / feeder subdivision).
- **ABB >420 kV systems.** (diameter / feeder subdivision).
- **ABC >420 kV systems.** (diameter / feeder subdivision).
- **ABD >420 kV systems.** (free for use).
- **ABM >420 kV systems.** (busbar section).
- **ABN >420 kV systems.** (busbar section).
- **ABZ >420 kV systems.** (Line / transformer feeder).

AC 380 (420) kV systems.

- **ACA 360 - 420 kV systems.** (diameter / feeder subdivision).
- **ACB 360 - 420 kV systems.** (diameter / feeder subdivision).
- **ACC 360 - 420 kV systems.** (diameter / feeder subdivision).
- **ACD 360 - 420 kV systems.** (free for use).
- **ACM 360 - 420 kV systems.** (busbar section).
- **ACN 360 - 420 kV systems.** (busbar section).
- **ACZ 360 - 420 kV systems.** (Line / transformer feeder).

AD 220 - 359 kV systems.

- **ADA 220 - 359 kV systems.** (diameter / feeder subdivision).
- **ADB 220 - 359 kV systems.** (diameter / feeder subdivision).
- **ADC 220 - 359 kV systems.** (diameter / feeder subdivision).
- **ADD 220 - 359 kV systems.** (free for use).
- **ADM 220 - 359 kV systems.** (busbar section).
- **ADN 220 - 359 kV systems.** (busbar section).
- **ADZ 220 - 359 kV systems.** (Line / transformer feeder).

AE 110 - 219 kV systems.

- **AEA 110 - 219 kV systems.** (diameter / feeder subdivision).
- **AEB 110 - 219 kV systems.** (diameter / feeder subdivision).
- **AEC 110 - 219 kV systems.** (diameter / feeder subdivision).
- **AED 110 - 219 kV systems.** (free for use).
- **AEM 110 - 219 kV systems.** (busbar section).
- **AEN 110 - 219 kV systems.** (busbar section).
- **AEZ 110 -219 kV systems.** (Line / transformer feeder).

AF 60 - 109 kV systems.

- **AFA 60 - 109 kV systems.** (diameter / feeder subdivision).
- **AFB 60 - 109 kV systems.** (diameter / feeder subdivision).
- **AFC 60 - 109 kV systems.** (diameter / feeder subdivision).
- **AFD 60 - 109 kV systems.** (free for use).
- **AFM 60 - 109 kV systems.** (busbar section).
- **AFN 60 - 109 kV systems.** (busbar section).
- **AFZ 60 - 109 kV systems.** (Line / transformer feeder).

AG 45 - 59 kV systems.

- **AGA 45 - 59 kV systems.** (diameter / feeder subdivision).
- **AGB 45 - 59 kV systems.** (diameter / feeder subdivision).
- **AGC 45 - 59 kV systems.** (diameter / feeder subdivision).
- **AGD 45 - 59 kV systems.** (free for use).
- **AGM 45 - 59 kV systems.** (busbar section).
- **AGN 45 - 59 kV systems.** (busbar section).
- **AGZ 45 - 59 kV systems.** (Line / transformer feeder).

AH 30 - 44 kV systems.

- **AHA 30 - 44 kV systems.** (diameter / feeder subdivision).
- **AHB 30 - 44 kV systems.** (diameter / feeder subdivision).
- **AHC 30 - 44 kV systems.** (diameter / feeder subdivision).

AHD 30 - 44 kV systems.
(free for use).
AHM 30 - 44 kV systems.
(busbar section).
AHN 30 - 44 kV systems.
(busbar section).
AHZ 30 - 44 kV systems.
(Line / transformer feeder).

AJ 20 - 29 kV systems.

AJA 20 - 29 kV systems.
(diameter / feeder subdivision).
AJB 20 - 29 kV systems.
(diameter / feeder subdivision).
AJC 20 - 29 kV systems.
(diameter / feeder subdivision).
AJD 20 - 29 kV systems.
(free for use).
AJM 20 - 29 kV systems.
(busbar section).
AJN 20 - 29 kV systems.
(busbar section).
AJZ 20 - 29 kV systems.
(Line / transformer feeder).

AK 10 - 19 kV systems.

AKA 10 - 19 kV systems.
(diameter / feeder subdivision).
AKB 10 - 19 kV systems.
(diameter / feeder subdivision).
AKC 10 - 19 kV systems.
(diameter / feeder subdivision).
AKD 10 - 19 kV systems.
(free for use).
AKM 10 -19 kV systems.
(busbar section).
AKN 10 - 19 kV systems.
(busbar section).
AKZ 10 - 19 kV systems.
(Line / transformer feeder).

AL 6 - 9 kV systems.

ALA 6 - 9 kV systems.
(diameter / feeder subdivision).
ALB 6 - 9 kV systems.
(diameter / feeder subdivision).
ALC 6 - 9 kV systems.
(diameter / feeder subdivision).
ALD 6 - 9 kV systems.
(free for use).
ALM 6 - 9 kV systems.
(busbar section).
ALN 6 - 9 kV systems.
(busbar section).
ALZ 6 - 9 kV systems.
(Line / transformer feeder).

AM 1 - 5 kV systems.

AMA 1 - 5 kV systems.
(diameter / feeder subdivision).
AMB 1 - 5 kV systems.
(diameter / feeder subdivision).
AMC 1 - 5 kV systems.
(diameter / feeder subdivision).
AMD 1 - 5 kV systems.
(free for use).
AMM 1 - 5 kV systems.
(busbar section).
AMN 1 - 5 kV systems.
(busbar section).
AMZ 1 - 5 kV systems.
(Line / transformer feeder).

AN < 1 kV systems.

ANA Low voltage switchgear 500-1000 V, Three-phase/single phase alternating current.
(free for use).
ANB Low voltage switchgear 500-1000 V, Three-phase/single phase alternating current.
(free for use).
ANC Low voltage switchgear 500-1000 V, Three-phase/single phase alternating current.
(free for use).
AND < 1 kV systems.
(free for use).
ANE Low voltage switchgear < 500 V, Three-phase/single phase alternating current.
(free for use).
ANF Low voltage switchgear < 500 V, Three-phase/single phase alternating current.
(free for use).
ANG Low voltage switchgear < 500 V, Three-phase/single phase alternating current.
(free for use).
ANH Low voltage switchgear < 500 V, Three-phase/single phase alternating current.
(free for use).

ANK **Direct voltage switchgear 220/110 V.**
(free for use).
ANL **Direct current switchgear 220/125 V.**
(free for use).
ANM **Direct current switchgear 220/125 V.**
(free for use).
ANN **Direct current switchgear 220/125 V.**
(free for use).
ANQ **Direct current switchgear 60/48 V.**
(free for use).
ANR **Direct current switchgear 60/48 V.**
(free for use).
ANS **Direct current switchgear 60/48 V.**
(free for use).
ANU **Direct current switchgear 24/12 V.**
(free for use).
ANV **Direct current switchgear 24/12 V.**
(free for use).
ANW **Direct current switchgear 24/12 V.**
(free for use).
ANZ **< 1 kV systems.**
(line).

AP **Control consoles.**

APA **Control consoles.**
(free for use).
APB **Control consoles.**
(free for use).
APC **Control consoles.**
(free for use).
APD **Control consoles.**
(free for use).

AQ **Measuring and metering equipment.**

AQA **Measuring and metering equipment.**
(free for use).
AQB **Measuring and metering equipment.**
(free for use).
AQC **Measuring and metering equipment.**
(free for use).
AQD **Measuring and metering equipment.**
(free for use).
AQZ **Measuring and metering equipment.**
(line).

AR **Protection equipment.**

ARA **Protection equipment.**
(free for use).
ARB **Protection equipment.**
(free for use).
ARC **Protection equipment.**
(free for use).
ARD **Protection equipment.**
(free for use).
ARZ **Protection equipment**
(line).

AS **Decentralized panels and cabinets.**

ASA **Circuit breaker appurtenances.**
ASB **Multiplication, conversion, decoupling.**
ASC **Transducer appurtenances.**
ASD **Compressed air, hydraulics.**
ASJ **Automated controls, closed-loop control.**
ASL **Grid simulation, voltage group selection.**
ASM **Measuring equipment.**
ASN **Auxiliary power supply.**
ASP **Recording.**
ASQ **Metering.**
ASR **Protection.**
ASS **Synchronization.**
AST **Transformation.**
ASU **Panels and cabinets for auxiliary equipment.**
ASV **Group, intermediate and general terminal blocks.**
ASW **Indication, manual operation, monitoring.**
ASX **Alarm annunciation.**

AT **Transformer equipment.**

ATA **Transformer equipment.**
(free for use).
ATB **Transformer equipment.**
(free for use).
ATC **Transformer equipment.**
(free for use).
ATD **Transformer equipment.**
(free for use).
ATZ **Transformer equipment.**
(free for use).

AU **Open-loop control, checkback and auxiliary equipment.**

AUA **Open-loop control, checkback and auxiliary equipment.**
(free for use).

AUB **Open-loop control, checkback and auxiliary equipment.**
(free for use).
AUC **Open-loop control, checkback and auxiliary equipment.**
(free for use).
AUD **Open-loop control, checkback and auxiliary equipment.**
(free for use).
AUE **Open-loop control, checkback and auxiliary equipment.**
(free for use).
AUF **Open-loop control, checkback and auxiliary equipment.**
(free for use).
AUG **Open-loop control, checkback and auxiliary equipment.**
(free for use).
AUH **Open-loop control, checkback and auxiliary equipment.**
(free for use).

AV Marshalling racks.

AVA **Marshalling racks.**
(free for use).
AVB **Marshalling racks.**
(free for use).
AVC **Marshalling racks.**
(free for use).
AVD **Marshalling racks.**
(free for use).
AVE **Marshalling racks.**
(free for use).
AVF **Marshalling racks.**
(free for use).
AVG **Marshalling racks.**
(free for use).
AVH **Marshalling racks.**
(free for use).

AW Instrument panels.

AWA **Instrument panels.**
(free for use).
AWB **Instrument panels.**
(free for use).
AWC **Instrument panels.**
(free for use).
AWD **Instrument panels.**
(free for use).

AX Central equipment.

AXA **Battery chargers.**
AXB **Battery plant.**
AXC **Uninterruptible power supply system.**
(UPS).
AXD **Low voltage distribution.**
AXE **Compressed air generation system.**
AXF **Central equipment.**
(free for use).
AXG **Central equipment.**
(free for use).
AXH **Central equipment.**
(free for use).
AXJ **Central equipment.**
(free for use).
AXK **Central equipment.**
(free for use).
AXL **Central equipment.**
(free for use).
AXM **Central equipment.**
(free for use).
AXN **Central equipment.**
(free for use).
AXP **Central equipment.**
(free for use).
AXR **Central equipment.**
(free for use).
AXS **Central equipment.**
(free for use).
AXT **Auxiliary power transformer.**
AXU **Central equipment.**
(free for use).
AXV **Central equipment.**
(free for use).
AXW **Central equipment.**
(free for use).
AXX **Central equipment.**
(free for use).
AXY **Central equipment.**
(free for use).
AXZ **Central equipment.**
(free for use).

AY Communication equipment.

AYA **Telephone system**
(PABX).
AYB **Control console telephone system.**
AYC **Alarm system**
(acoustic).
AYD **Alarm system**
(optical).
AYE **Fire alarm system.**
AYF **Clock system.**
AYG **Remote control system.**
AYH **Telemetry system.**

AYJ Remote metering system.
AYK HF carrier telephone system.
AYL Staff paging system, wireless.
AYM Staff paging system, inductive.
AYN Staff paging system, hardwired.
AYP Optical monitoring system.
AYQ General gas alarm system.
(if not assigned to specific system).
AYS Radiotelephone system.

B

POWER TRANSMISSION AND AUXILIARY POWER SUPPLY

BA Power transmission.

BB Medium-voltage distribution boards and transformers, normal system.

BC Medium voltage distribution boards and transformers, general-purpose.

BD Medium voltage emergency distribution boards and transformers, (diesel) emergency power system.

BF Low voltage main distribution boards and transformers, normal system.

BH Low voltage main distribution boards and transformers, general-purpose.

BJ Low voltage subdistribution boards and transformers, normal system.

BL Low voltage subdistribution boards and transformers, general-purpose.

BM Low voltage distribution boards and transformers, (diesel) emergency power system 1.

BP Power installations for large variable-speed drives (e.g. for feedwater pump, excitation equipment, GT starting equipment, not power adjusters in switchgear).

BR Low voltage distribution boards, converter, uninterruptible power system (UPS) and stand-by diesel power system.

BT Battery and charger systems.

BU Direct current distribution boards.

BV Direct current distribution boards.

BY Control and protection equipment.

POWER TRANSMISSION AND AUXILIARY POWER SUPPLY

BA Power transmission.

- **BAA Generator leads.**
  from excl. generator bushings, incl. current and voltage transformers, cooling and ventilation systems to excl. generator transformer low side bushings or to excl. auxiliary power transformer high side bushings.
- **BAB Foundation cabinets.**
- **BAC Generator circuit breaker, also commutating pole circuit breaker, incl. cooling system.**
- **BAT Generator transformers, including cooling system.**
- **BAU Earthing and lightning protection systems.**
- **BAX Fluid supply system for control and protection equipment.**
- **BAY Control and protection equipment.**

BB Medium-voltage distribution boards and transformers, normal system.

- **BBA Medium voltage distribution boards, normal system.**
  (free for use).
- **BBB Medium voltage distribution boards, normal system.**
  (free for use).
- **BBC Medium voltage distribution boards, normal system.**
  (free for use).
- **BBD Medium voltage distribution boards, normal system.**
  (free for use).
- **BBE Medium voltage distribution boards, normal system.**
  (free for use).
- **BBF Medium voltage distribution boards, normal system.**
  (free for use).
- **BBG Medium voltage distribution boards, normal system.**
  (free for use).
- **BBH Medium voltage distribution boards, normal system.**
  (free for use).
- **BBT Medium voltage auxiliary power transformers.**
- **BBX Fluid supply system for control and protection equipment.**
- **BBY Control and protection equipment.**

BC Medium voltage distribution boards and transformers, general-purpose.

- **BCA Medium voltage distribution boards, general-purpose.**
  (free for use).
- **BCB Medium voltage distribution boards, general-purpose.**
  (free for use).
- **BCC Medium voltage distribution boards, general-purpose.**
  (free for use).
- **BCD Medium voltage distribution boards, general-purpose.**
  (free for use).
- **BCE Medium voltage distribution boards, general-purpose.**
  (free for use).
- **BCF Medium voltage distribution boards, general-purpose.**
  (free for use).
- **BCG Medium voltage distribution boards, general-purpose.**
  (free for use).
- **BCH Medium voltage distribution boards, general-purpose.**
  (free for use).
- **BCT Start-up, offsite, general-purpose transformers.**
- **BCX Fluid supply system for control and protection equipment.**
- **BCY Control and protection equipment.**

BD Medium voltage emergency distribution boards and transformers, (diesel) emergency power system.

- **BDA Medium voltage distribution boards, blackstart-purpose.**
  (free for use).
- **BDB Medium voltage distribution boards, blackstart-purpose.**
  (free for use).
- **BDC Medium voltage distribution boards, blackstart-purpose.**
  (free for use).
- **BDD Medium voltage distribution boards, blackstart-purpose.**
  (free for use).
- **BDT Start-up, off site, blackstart-purpose transformer.**
- **BDX Fluid supply system for control and protection equipment.**
- **BDY Control and protection equipment**
- **BDZ -blocked-.**

POWER TRANSMISSION AND AUXILIARY POWER SUPPLY

BF Low voltage main distribution boards and transformers, normal system.

BFA Low voltage main distribution boards, normal system.
(free for use).

BFB Low voltage main distribution boards, normal system.
(free for use).

BFC Low voltage main distribution boards, normal system (ACC).

BFD Low voltage main distribution boards, normal system.
(free for use).

BFE Low voltage main distribution boards, normal system.
(free for use).

BFF Low voltage main distribution boards, normal system (option e.g. for heating & freezing protection).

BFG Low voltage main distribution boards, normal system.
(free for use).

BFH Low voltage main distribution boards, normal system.
(free for use).

BFT Low voltage auxiliary power transformer.

BH Low voltage main distribution boards and transformers, general-purpose.

BHA Low voltage main distribution boards, general purpose.
(free for use).

BHB Low voltage main distribution boards, general purpose.
(free for use).

BHC Low voltage main distribution boards, general purpose.
(free for use).

BHD Low voltage main distribution boards, general purpose.
(free for use).

BHE Low voltage main distribution boards, general purpose.
(free for use).

BHF Low voltage main distribution boards, general purpose.
(free for use).

BHG Low voltage main distribution boards, general purpose.
(free for use).

BHH Low voltage main distribution boards, general purpose.
(free for use).

BHR Low voltage auxiliary distribution boards, general-purpose.
Lighting, ventilation, air conditioning.

BHT Low voltage auxiliary power transformers.
(free for use according to voltage level).

BHU Low voltage auxiliary power transformers.
(free for use according to voltage level).

BHV Low voltage auxiliary power transformers.
(free for use according to voltage level).

BHW Low voltage auxiliary power transformers.
(free for use according to voltage level).

BHX Fluid supply system for control and protection equipment.

BHY Control and protection equipment.

BJ Low voltage subdistribution boards and transformers, normal system.

BJA Low voltage subdistribution boards and transformers, normal system.
(free for use).

BJB Low voltage subdistribution boards and transformers, normal system.
(free for use).

BJC Low voltage subdistribution boards, normal system. Water treatment.

BJD Low voltage subdistribution boards, normal system.

BJH Low voltage subdistribution boards, normal system.
(free for use).

BJT Low voltage auxiliary power transformers.

BL Low voltage subdistribution boards and transformers, general-purpose.

BLA Low voltage subdistribution boards, general-purpose.
(free for use).

BLB Low voltage subdistribution boards, general-purpose.
(free for use).

BLD Low voltage subdistribution boards, general-purpose.
(free for use).

POWER TRANSMISSION AND AUXILIARY POWER SUPPLY

BLE Low voltage subdistribution boards, general-purpose.
(free for use).
BLF Low voltage subdistribution boards, general-purpose.
(free for use).
BLG Low voltage subdistribution boards, general-purpose.
(free for use).
BLH Low voltage subdistribution boards, general-purpose.
(free for use).
BLT Low voltage auxiliary power transformer.
BLX Fluid supply system for control and protection equipment.
BLY Control and protection equipment.

BM Low voltage distribution boards and transformers, (diesel) emergency power system 1.

BMA Low voltage emergency distribution boards.
(free for use).
BMB Low voltage emergency distribution boards.
(free for use).
BMC Low voltage emergency distribution boards.
(free for use).
BMD Low voltage emergency distribution boards.
(free for use).
BME Low voltage emergency distribution boards.
(free for use).
BMF Low voltage emergency distribution boards.
(free for use).
BMG Low voltage emergency distribution boards.
(free for use).
BMH Low voltage emergency distribution boards.
(free for use).
BMT Low voltage auxiliary power transformers.
(free for use according to voltage level).
BMU Low voltage auxiliary power transformers.
(free for use according to voltage level).
BMV Low voltage auxiliary power transformers.
(free for use according to voltage level).
BMW Low voltage auxiliary power transformers.
(free for use according to voltage level).
BMX Fluid supply system for control and protection equipment.
BMY Control and protection equipment.

BP Power installations for large variable-speed drives (e.g.for feedwater pump, excitation equipment, gt starting equipment, not power adjusters in switchgear).
(e.g. for feedwater pump, excitation equipment, not power adjusters in switchgear).

BPA Power installations for large variable-speed drives.
(free for use).
BPC Power installations for large variable-speed drives.
(free for use).
BPD Power installations for large variable-speed drives.
(free for use).
BPT Transformer for large variable-speed drives.
(free for use).
BPX Fluid supply system for control and protection equipment.
BPY Control and protection equipment.

BR Low voltage distribution boards, converter, uninterruptible power system (UPS) and stand-by diesel power system.

BRA Low voltage (UPS) distribution boards.
(free for use).
BRB Low voltage (UPS) distribution boards.
(free for use).
BRC Low voltage emergency distribution boards.
(free for use).
BRD Low voltage emergency distribution boards.
(free for use).
BRF Low voltage emergency distribution boards.
(free for use).
BRG Low voltage emergency distribution boards.
(free for use).
BRH Low voltage emergency distribution boards.
(free for use).

POWER TRANSMISSION AND AUXILIARY POWER SUPPLY

BRT Converter (rotary).
BRU Converter (static), inverter.
BRV Stand-by power generation equipment.
BRX Fluid supply system for control and protection equipment.
BRY Control and protection equipment.

BT Battery and charger systems.

BTA Batteries 125 V or 220 V DC.
BTB Batteries 125 V or 220 V DC.
BTC Batteries.
BTD Batteries.
BTE Batteries 24 V DC.
BTF Batteries 24 V DC.
BTL Battery chargers 125 V or 220 V DC.
BTM Battery chargers 125 V or 220 V DC.
BTN Battery chargers.
BTP Battery chargers.
BTQ Battery chargers 24V DC.
BTR Battery chargers 24 V DC.
BTS DC/DC converter 125 or 220/48 V DC.
BTT DC/DC converter 125 or 220/48 V DC.
BTW Common equipment.
BTX Common equipment.
BTY Common equipment.
BTZ Common equipment.

BU Direct current distribution boards.

BUA Direct current distribution boards 125 V or 220 V.
(free for use).
BUB Direct current distribution boards 125 V or 220 V.
(free for use).
BUC Direct current distribution boards 125 V or 220 V.
(free for use).
BUD Direct current distribution boards
(free for use).
BUE Direct current distribution boards 24 V.
(free for use).
BUF Direct current distribution boards 24 V.
(free for use).
BUG Direct current distribution boards 24 V.
(free for use).
BUH Direct current distribution boards.
(free for use).
BUL Direct current distribution boards 48 V.
(free for use).
BUM Direct current distribution boards 48 V.
(free for use).
BUX Fluid supply system for control and protection equipment.

BV Direct current distribution boards.

BVA Direct current distribution boards 125 V or 220 V.
(free for use).
BVB Direct current distribution boards 125 V or 220 V.
(free for use).
BVC Direct current distribution boards 125 V or 220 V.
(free for use).
BVD Direct current distribution boards.
(free for use).
BVE Direct current distribution boards 24 V.
(free for use).
BVF Direct current distribution boards 24 V.
(free for use).
BVG Direct current distribution boards 24 V.
(free for use).
BVH Direct current distribution boards.
(free for use).
BVL Direct current distribution boards 48 V.
(free for use).
BVM Direct current distribution boards 48 V.
(free for use).
BVX Fluid supply system for control and protection equipment.
BVY Control and protection equipment.

BY Control and protection equipment.

BYA Control and protection equipment.
(free for use).
BYB Control and protection equipment.
(free for use).
BYC Control and protection equipment.
(free for use).
BYD Control and protection equipment.
(free for use).

C

INSTRUMENTATION AND CONTROL EQUIPMENT

(Identification on a priority basis according to main instrumentation and control function also acceptable in composite structure hardware packaging systems).

CA Protective interlocks.

CB Functional group control, subloop control.

CC Binary signal conditioning.

CD Drive control interface.

CE Annunciation.

CF Measurement, recording.

CG Closed-loop control (excl. power section).

CH Protection (excl. reactor protection).

CJ Unit coordination level.

CK Process computer system.

CM Instrumentation and control equipment.

CN Instrumentation and control equipment.

CP Instrumentation and control equipment.

CQ Instrumentation and control equipment.

CR Instrumentation and control equipment.

CS Instrumentation and control equipment.

CU Closed-loop control (power section).

CV Marshalling racks.

CW Control rooms.

CX Local control stations (e.g. for coal handling plants, ash handling plants, cooling water systems, diesel units, supervision of generator cooling, remote shutdown station).

CY Communication equipment.

INSTRUMENTATION AND CONTROL EQUIPMENT

CA Protective interlocks.

CAA Cabinets for protective interlocks.
(free for use).
CAB Cabinets for protective interlocks.
CAC Cabinets for protective interlocks.
CAD Cabinets for protective interlocks.

CB Functional group control, subloop control.

CBA Cabinets for DCS cubicles.
(free for use).
CBP Cabinets for synchronization.
(free for use)
CBQ Cabinets for auxiliary power changeover.
(free for use)

CC Binary signal conditioning.

CCA Cabinets for binary signal conditioning.
(free for use).
CCB Cabinets for binary signal conditioning.
(free for use).
CCC Cabinets for binary signal conditioning.
(free for use).
CCD Cabinets for binary signal conditioning.
(free for use).

CD Drive control interface.

CDA Cabinets for drive control interface.
(free for use).
CDB Cabinets for drive control interface.
(free for use).
CDC Cabinets for drive control interface.
(free for use).
CDD Cabinets for drive control interface.
(free for use).

CE Annunciation.

CEK Fault recording.

CF Measurement, recording.

CFA Cabinets for measurement.
(free for use).
CFB Cabinets for measurement.
(free for use).
CFC Cabinets for measurement.
(free for use).
CFD Cabinets for measurement.
(free for use).
CFQ Cabinets for recording (meters, pen recorders).

CG Closed-loop control (excl. power section).

CGA Cabinets for closed-loop control.
(free for use).
CGB Cabinets for closed-loop control.
(free for use).
CGC Cabinets for closed-loop control.
(free for use).
CGD Cabinets for closed-loop control.
(free for use).

CH Protection (excl. reactor protection).

CHA Cabinets for generator and transformer protection.
(free for use).
CHB Cabinets for generator and transformer protection.
(free for use).
CHC Cabinets for generator and transformer protection.
(free for use).
CHD Cabinets for generator and transformer protection.
(free for use).
CHE Protection (excl. reactor protection).
(free for use).
CHF Protection (excl. reactor protection).
(free for use).

CJ Unit coordination level.

CJA Unit control system (including cabinets).
CJD Start-up control, setpoint control (unit) (incl. cabinets).
CJF Boiler control system (incl. cabinets).
CJJ Instrumentation and control cabinets for steam turbine set.
(free for use).
CJK Instrumentation and control cabinets for steam turbine set.
(free for use).
CJP Instrumentation and control cabinets for gas turbine set.
CJQ Instrumentation and control cabinets for gas turbine set.
(free for use).

INSTRUMENTATION AND CONTROL EQUIPMENT

CJU Instrumentation and control cabinets for other main and heavy machinery.
(free for use).

CK Process computer system.

CKA Online supervisory and diagnostic computer.
(free for use).
CKB Online supervisory and diagnostic computer.
(free for use).
CKC Online supervisory and diagnostic computer.
(free for use).
CKD Online supervisory and diagnostic computer.
(free for use).
CKE Online supervisory and diagnostic computer.
(free for use).
CKJ Access control computer.
(free for use).
CKK Access control computer.
(free for use).
CKL Access control computer.
(free for use).
CKM Access control computer.
(free for use).
CKN Process computer system.
(free for use).

CM Instrumentation and control equipment.

CMA Instrumentation and control equipment.
(free for use for system combination).
CMB Instrumentation and control equipment.
(free for use for system combination).
CMC Instrumentation and control equipment.
(free for use for system combination).
CMD Instrumentation and control equipment.
(free for use for system combination).

CN Instrumentation and control equipment.

CNA Instrumentation and control equipment.
(free for use for system combination).
CNB Instrumentation and control equipment.
(free for use for system combination).
CNC Instrumentation and control equipment.
(free for use for system combination).
CND Instrumentation and control equipment.
(free for use for system combination).
CNT Instrumentation snd control equipment (network cubicles).

CP Instrumentation and control equipment.

CPA Instrumentation and control equipment.
(free for use for system combination).
CPB Instrumentation and control equipment.
(free for use for system combination).
CPC Instrumentation and control equipment.
(free for use for system combination).
CPD Instrumentation and control equipment.
(free for use for system combination).

CQ Instrumentation and control equipment.

CQA Instrumentation and control equipment.
(free for use for system combination).
CQB Instrumentation and control equipment.
(free for use for system combination).
CQC Instrumentation and control equipment.
(free for use for system combination).
CQD Instrumentation and control equipment.
(free for use for system combination).

CR Instrumentation and control equipment.

CRA Instrumentation and control equipment.
(free for use for system combination).
CRB Instrumentation and control equipment.
(free for use for system combination).
CRC Instrumentation and control equipment.
(free for use for system combination).
CRD Instrumentation and control equipment.
(free for use for system combination).

INSTRUMENTATION AND CONTROL EQUIPMENT

CS Instrumentation and control equipment.

CSA Instrumentation and control equipment.
(free for use for system combination).
CSB Instrumentation and control equipment.
(free for use for system combination).
CSC Instrumentation and control equipment.
(free for use for system combination).
CSD Instrumentation and control equipment.
(free for use for system combination).

CU Closed-loop control (power section).

CUA Static excitation system or generator voltage regulator.
(free for use).
CUB Closed-loop control (power section).
CUC Closed-loop control (power section).
CUG Closed-loop control (power section).

CV Marshalling racks.

CVA Marshalling racks.
(free for use).
CVB Marshalling racks.
(free for use).
CVC Marshalling racks.
(free for use).
CVD Marshalling racks.
(free for use).
CVE Marshalling racks.
(free for use).
CVF Marshalling racks.
(free for use).
CVG Marshalling racks.
(free for use).
CVH Marshalling racks.
(free for use).

CW Control rooms.

CWA Main control consoles.
(free for use).
CWB Main control consoles.
(free for use).
CWC Main control consoles.
(free for use).
CWD Main control consoles.
(free for use).
CWE Main control consoles.
(free for use).
CWF Main control panels.
(free for use).
CWG Main control panels.
(free for use).
CWH Main control panels.
(free for use).
CWJ Main control panels.
(free for use).
CWP Main control panels.
(free for use).
CWQ Control rooms.
(free for use).
CWR Control rooms.
(free for use).
CWS Control rooms.
(free for use).
CWT Control rooms.
(free for use).
CWU Control rooms.
(free for use).

CX Local control stations (e.g. for coal handling plants, ash handling plants, cooling water systems, diesel units, supervision of generator cooling, remote shutdown station).

CXA Local control stations.
(free for use).
CXB Local control stations.
(free for use).
CXC Local control stations.
(free for use).
CXD Local control stations.
(free for use).
CXE Local control stations.
(free for use).
CXF Local control stations.
(free for use).
CXG Local control stations.
(free for use).
CXH Local control stations.
(free for use).
CXQ Local control stations.
(free for use).

CY Communication equipment.

CYA Telephone system (PABX).
CYB Control console telephone system.
CYC Alarm system (acoustic).
CYD Alarm system (optical).
CYE Fire alarm system.
CYF Clock system.
CYG Remote control system.

CYH Telemetry system.
- CYH80 Plant emission monitoring system,
- CYH90 Weather station.
- CYH8 Plant emission monitoring system
- CYH9 Weather station.

CYJ Remote metering system.
CYK HF carrier telephone system.
CYL Staff paging system, wireless.
CYM Staff paging system, inductive.
CYN Staff paging system, hardwired.
CYP Optical monitoring system.
CYQ General gas alarm system (if not assignet to a specific system).
CYR Pneumatic tube conveyor.
CYS Radiotelephone system.

E

CONVENTIONAL FUEL SUPPLY AND RESIDUES DISPOSAL

EA Unloading and storage of solid fuels.

EB Mechanical treatment of solid fuels (also for gas generation and treatment) (Crushing, mixing, drying, etc.).

EC Distribution of solid fuels.

ED Chemical treatment of solid fuels incl. residues removal (e.g. desulfurization plant).

EE Conversion of solid fuels (Gas generation and treatment see function key *R*).

EG Supply of liquid fuels.

EH Chemical treatment of liquid fuels incl. residues removal.

EK Supply of gaseous fuels.

EL Chemical treatment of gaseous fuels incl. residues removal.

EM Supply and treatment of additive fuels.

EN Supply of other fuels (use only for combinations of different fuel types).

EP Treatment of other fuels (use only for combinations of different fuel types).

EQ Conversion of other fuels (use only for combinations of different fuel types).

ER Ignition fuel supply.

ET Ash and slag removal system (from excl. removal equipment).

EU Treatment and transport system for combustion, fuel treatment, fuel conversion, flue gas cleaning, gas generation residues.

EV Lubricant supply system.

EW Sealing/loosening medium supply.

EX Fluid supply system for control and protection equipment.

EY Control and protection equipment.

CONVENTIONAL FUEL SUPPLY AND RESIDUES DISPOSAL

EA Unloading and storage of solid fuels.

EAA Ship unloading system.
from incl. unloading equipment
to excl. transport or storage plant.

EAB Rail wagon and truck unloading bay.
from incl. unloading equipment
to excl. transport or storage plant.

EAC Transport system.
from incl. receiving point
to excl. storage incl. internal transport system within unloading and storage plant
to excl. stacker.

EAD Stacking system.
from excl. transport system
to excl. storage plant.

EAE Bunker system, storage area (stockyard).
from excl. unloading equipment or transport system
to excl. transport or bucket wheel or reclaimer or stacking system.

EAF Bucket wheel system, reclaimer system.
from excl. bunker system or stockyard
to excl. transport system.

EAT Weighing equipment.

EAU Sampling equipment.

EAV Lubricant supply system.

EAX Fluid supply system for control and protection equipment.

EAY Control and protection equipment.

EB Mechanical treatment of solid fuels (also for gas generation and treatment) (Crushing, mixing, drying, etc.).

EBA Transport system.
from incl. receiving point
to excl. discharge into treatment or mixing system.

EBB Mixing system.
from incl. receiving point
to excl. discharge into other system.

EBC Crushing system, pulverizing system.
from incl. receiving point
to excl. discharge into other system.

EBD Screening system.
from incl. receiving point
to excl. discharge into other system.

EBE Separator system and discharge equipment thereof - unless not structural part of one of the former systems (*EBA* to *EBD*).
from incl. receiving point
to excl. discharge into other system.

EBF Temporary storage system for milled raw coal.
from incl. receiving point
to excl. discharge into other system.

EBG Predrying system.
from incl. receiving point
to excl. discharge into other system.

EBH Main drying system.
from incl. receiving point
to excl. discharge into other system.

EBJ Dried coal transport system incl. aftercooling.
from incl. receiving point
to excl. discharge into other system.

EBK Dried coal temporary storage system.
from incl. receiving point
to excl. discharge into other system.

EBL Vapor compressor system.
from incl. receiving point
to excl. discharge into other system.

EBM Exhaust system.
from incl. receiving point
to excl. discharge into other system.

EBR Residues removal system.

EBT Weighing equipment.

EBU Sampling equipment.

EBV Lubricant supply system.

EBX Fluid supply system for control and protection equipment.

EBY Control and protection equipment.

EC Distribution of solid fuels.

ECA Distribution of solid fuels.
(free for use according to transport systems)
from incl. receiving point
to excl. discharge into other systems.

ECB Distribution of solid fuels.
(free for use according to transport systems)
from incl. receiving point
to excl. discharge into other systems.

ECC Distribution of solid fuels.
(free for use according to transport systems)
from incl. receiving point
to excl. discharge into other systems.

CONVENTIONAL FUEL SUPPLY AND RESIDUES DISPOSAL

ECD Distribution of solid fuels.
(free for use according to transport systems)
from incl. receiving point
to excl. discharge into other systems.

ECE Distribution of solid fuels.
(free for use according to transport systems)
from incl. receiving point
to excl. discharge into other systems.

ECF Distribution of solid fuels.
(free for use according to transport systems)
from incl. receiving point
to excl. discharge into other systems.

ECG Distribution of solid fuels.
(free for use according to transport systems)
from incl. receiving point
to excl. discharge into other systems.

ECH Distribution of solid fuels.
(free for use according to transport systems)
from incl. receiving point
to excl. discharge into other systems.

ECJ Distribution of solid fuels.
(free for use according to transport systems)
from incl. receiving point
to excl. discharge into other systems.

ECK Distribution of solid fuels.
(free for use according to transport systems)
from incl. receiving point
to excl. discharge into other systems.

ECL Distribution of solid fuels.
(free for use according to transport systems)
from incl. receiving point
to excl. discharge into other systems.

ECM Distribution of solid fuels.
(free for use according to transport systems)
from incl. receiving point
to excl. discharge into other systems.

ECN Distribution of solid fuels.
(free for use according to transport systems)
from incl. receiving point
to excl. discharge into other systems.

ECP Distribution of solid fuels.
(free for use according to transport systems)
from incl. receiving point
to excl. discharge into other systems.

ECQ Distribution of solid fuels.
(free for use according to transport systems)
from incl. receiving point
to excl. discharge into other systems.

ECR Distribution of solid fuels.
(free for use according to transport systems)
from incl. receiving point
to excl. discharge into other systems.

ECS Distribution of solid fuels.
(free for use according to transport systems)
from incl. receiving point
to excl. discharge into other systems.

ECT Weighing equipment.

ECU Sampling equipment.

ECX Fluid supply system for control and protection equipment.

ECY Control and protection equipment.

ED Chemical treatment of solid fuels incl. residues removal (e.g. desulfurization plant).

EDA Chemical treatment of solid fuels incl. residues removal (e.g. desulfurization plant).
(free for use).

EDB Chemical treatment of solid fuels incl. residues removal (e.g. desulfurization plant).
(free for use).

EDC Chemical treatment of solid fuels incl. residues removal (e.g. desulfurization plant).
(free for use).

EDD Chemical treatment of solid fuels incl. residues removal (e.g. desulfurization plant).
(free for use).

EDE Chemical treatment of solid fuels incl. residues removal (e.g. desulfurization plant).
(free for use).

EDF Chemical treatment of solid fuels incl. residues removal (e.g. desulfurization plant).
(free for use).

EDG Chemical treatment of solid fuels incl. residues removal (e.g. desulfurization plant).
(free for use).

EDH Chemical treatment of solid fuels incl. residues removal (e.g. desulfurization plant).
(free for use).

EDJ Chemical treatment of solid fuels incl. residues removal (e.g. desulfurization plant).
(free for use).

EDK Chemical treatment of solid fuels incl. residues removal (e.g. desulfurization plant).
(free for use).

EDL Chemical treatment of solid fuels incl. residues removal (e.g. desulfurization plant).
(free for use).

CONVENTIONAL FUEL SUPPLY AND RESIDUES DISPOSAL

EDM **Chemical treatment of solid fuels incl. residues removal (e.g. desulfurization plant).**
(free for use).

EDN **Chemical treatment of solid fuels incl. residues removal (e.g. desulfurization plant).**
(free for use).

EDP **Chemical treatment of solid fuels incl. residues removal (e.g. desulfurization plant).**
(free for use).

EDQ **Chemical treatment of solid fuels incl. residues removal (e.g. desulfurization plant).**
(free for use).

EDR **Chemical treatment of solid fuels incl. residues removal (e.g. desulfurization plant).**
(free for use).

EDS **Chemical treatment of solid fuels incl. residues removal (e.g. desulfurization plant).**
(free for use).

EDT **Chemical treatment of solid fuels incl. residues removal (e.g. desulfurization plant).**
(free for use).

EDU **Chemical treatment of solid fuels incl. residues removal (e.g. desulfurization plant).**
(free for use).

EDV **Lubricant supply system.**

EDX **Fluid supply system for control and protection equipment.**

EDY **Control and protection equipment.**

EE **Conversion of solid fuels (Gas generation and treatment see function key *R*).**

EEA **Conversion of solid fuels.**
(free for use).

EEB **Conversion of solid fuels.**
(free for use).

EEC **Conversion of solid fuels.**
(free for use).

EED **Conversion of solid fuels.**
(free for use).

EEE **Conversion of solid fuels.**
(free for use).

EEF **Conversion of solid fuels.**
(free for use).

EEG **Conversion of solid fuels.**
(free for use).

EEH **Conversion of solid fuels.**
(free for use).

EEJ **Conversion of solid fuels.**
(free for use).

EEK **Conversion of solid fuels.**
(free for use).

EEL **Conversion of solid fuels.**
(free for use).

EEM **Conversion of solid fuels.**
(free for use).

EEN **Conversion of solid fuels.**
(free for use).

EEP **Conversion of solid fuels.**
(free for use).

EEQ **Conversion of solid fuels.**
(free for use).

EER **Conversion of solid fuels.**
(free for use).

EES **Conversion of solid fuels.**
(free for use).

EET **Conversion of solid fuels.**
(free for use).

EEU **Conversion of solid fuels.**
(free for use).

EEV **Lubricant supply system.**

EEX **Fluid supply system for control and protection equipment.**

EEY **Control and protection equipment.**

EG **Supply of liquid fuels.**

EGA **Receiving equipment incl. pipeline.**
from excl. receiving point
to excl. tank, incl. pump.

EGB **Tank farm.**
from incl. tank inlet
to incl. tank outlet
incl. drains, vents, heating equipment etc.

EGC **Pump system.**
from incl. pump system suction nozzles
to incl. pump system discharge nozzles.

EGD **Piping system.**
from excl. outlet another system
to excl. inlet another system.

EGE **Mechanical cleaning, scrubbing.**
from incl. inlet into mechanical cleaning / scrubbing
to incl. outlet mechanical cleaning / scrubbing.

EGF **Intermediate storage.**
from incl. daily tank inlet
to incl. daily tank outlet
incl. drains, vents, heating equipment etc.

EGG **Preheating.**
from incl. inlet preheating system
to incl. outlet preheating system
incl. drains, vents.

CONVENTIONAL FUEL SUPPLY AND RESIDUES DISPOSAL

EGR Residues removal system.
from incl. inlet collecting tank or collecting pipe to incl. inlet into another system incl. pumping equipment.

EGT Heating medium system.
from excl. branch off supply system to excl. user (*EGG*), and
from excl. user (*EGG*) to excl. inlet another system.

EGU Custody transfer metering station.
from incl. inlet metering station to incl. outlet metering station.

EGV Lubricant supply system.

EGX Fluid supply system for control and protection equipment.

EGY Control and protection equipment.

EH Chemical treatment of liquid fuels incl. residues removal.

EHA Chemical treatment of liquid fuels incl. residues removal.
(free for use).

EHB Chemical treatment of liquid fuels incl. residues removal.
(free for use).

EHC Chemical treatment of liquid fuels incl. residues removal.
(free for use).

EHD Chemical treatment of liquid fuels incl. residues removal.
(free for use).

EHE Chemical treatment of liquid fuels incl. residues removal.
(free for use).

EHF Chemical treatment of liquid fuels incl. residues removal.
(free for use).

EHG Chemical treatment of liquid fuels incl. residues removal.
(free for use).

EHH Chemical treatment of liquid fuels incl. residues removal.
(free for use).

EHJ Chemical treatment of liquid fuels incl. residues removal.
(free for use).

EHK Chemical treatment of liquid fuels incl. residues removal.
(free for use).

EHL Chemical treatment of liquid fuels incl. residues removal.
(free for use).

EHM Chemical treatment of liquid fuels incl. residues removal.
(free for use).

EHN Chemical treatment of liquid fuels incl. residues removal.
(free for use).

EHP Chemical treatment of liquid fuels incl. residues removal.
(free for use).

EHQ Chemical treatment of liquid fuels incl. residues removal.
(free for use).

EHR Chemical treatment of liquid fuels incl. residues removal.
(free for use).

EHS Chemical treatment of liquid fuels incl. residues removal.
(free for use).

EHT Chemical treatment of liquid fuels incl. residues removal.
(free for use).

EHU Chemical treatment of liquid fuels incl. residues removal.
(free for use).

EHV Lubricant supply system.

EHX Fluid supply system for control and protection equipment.

EHY Control and protection equipment.

EK Supply of gaseous fuels.

EKA Receiving equipment incl. pipeline.
from excl. receiving point to incl. inlet to other system.

EKB Preliminary cleaning (moisture and dust separation).
from incl. inlet moisture separation to incl. outlet dust separation.

EKC Heating system.
from incl. inlet heating system to incl. outlet heating system incl. drains, vents, gas leakage monitoring equipment.

EKD Main reducing station, expansion turbine.
from incl. main reducing station inlet, expansion turbine inlet to incl. main reducing station outlet, expansion turbine outlet.

EKE Mechanical filtering, cleaning, scrubbing.
from incl. inlet of mechanical cleaning, scrubbing system to incl. outlet mechanical cleaning, scrubbing system.

CONVENTIONAL FUEL SUPPLY AND RESIDUES DISPOSAL

EKF Storage system.
from incl. inlet storage system
to incl. outlet storage system
incl. drains, vents, gas leakage monitoring equipment.

EKG Piping system.
from excl. outlet another system
to excl. inlet another system.

EKH Main pressure boosting system.
from incl. inlet compressor system
to incl. discharge compressor system
incl. drains, vents, gas leakage monitoring equipment, sealing medium connections.

EKR Residues removal system.
from incl. inlet collecting tank or collecting pipe
to incl. inlet into another system
incl. pumping equipment.

EKT Heating medium system.
from excl. branch off supply system
to excl. user (*EKC*) and
from excl. user (*EKC*)
to excl. inlet to other system.

EKU Custody transfer metering station.
from incl. inlet metering station
to incl. outlet metering station.

EKV Lubricant supply system.

EKW Sealing fluid supply system.

EKX Fluid supply system for control and protection equipment.

EKY Control and protection equipment.

EL Chemical treatment of gaseous fuels incl. residues removal.

ELA Chemical treatment of gaseous fuels incl. residues removal.
(free for use).

ELB Chemical treatment of gaseous fuels incl. residues removal.
(free for use).

ELC Chemical treatment of gaseous fuels incl. residues removal.
(free for use).

ELD Chemical treatment of gaseous fuels incl. residues removal.
(free for use).

ELE Chemical treatment of gaseous fuels incl. residues removal.
(free for use).

ELF Chemical treatment of gaseous fuels incl. residues removal.
(free for use).

ELG Chemical treatment of gaseous fuels incl. residues removal.
(free for use).

ELH Chemical treatment of gaseous fuels incl. residues removal.
(free for use).

ELJ Chemical treatment of gaseous fuels incl. residues removal.
(free for use).

ELK Chemical treatment of gaseous fuels incl. residues removal.
(free for use).

ELL Chemical treatment of gaseous fuels incl. residues removal.
(free for use).

ELM Chemical treatment of gaseous fuels incl. residues removal.
(free for use).

ELN Chemical treatment of gaseous fuels incl. residues removal.
(free for use).

ELP Chemical treatment of gaseous fuels incl. residues removal.
(free for use).

ELQ Chemical treatment of gaseous fuels incl. residues removal.
(free for use).

ELR Chemical treatment of gaseous fuels incl. residues removal.
(free for use).

ELS Chemical treatment of gaseous fuels incl. residues removal.
(free for use).

ELT Chemical treatment of gaseous fuels incl. residues removal.
(free for use).

ELU Chemical treatment of gaseous fuels incl. residues removal.
(free for use).

ELV Lubricant supply system.

ELW Sealing fluid supply system.

ELX Fluid supply system for control and protection equipment.

ELY Control and protection equipment.

EM Supply and treatment of additive fuels.

EMA Supply and treatment of additive fuels.
(free for use).

EMB Supply and treatment of additive fuels.
(free for use).

EMC Supply and treatment of additive fuels.
(free for use).

CONVENTIONAL FUEL SUPPLY AND RESIDUES DISPOSAL

EMD **Supply and treatment of additive fuels.**
(free for use).

EME **Supply and treatment of additive fuels.**
(free for use).

EMF **Supply and treatment of additive fuels.**
(free for use).

EMG **Supply and treatment of additive fuels.**
(free for use).

EMH **Supply and treatment of additive fuels.**
(free for use).

EMJ **Supply and treatment of additive fuels.**
(free for use).

EMK **Supply and treatment of additive fuels.**
(free for use).

EML **Supply and treatment of additive fuels.**
(free for use).

EMM **Supply and treatment of additive fuels.**
(free for use).

EMN **Supply and treatment of additive fuels.**
(free for use).

EMP **Supply and treatment of additive fuels.**
(free for use).

EMQ **Supply and treatment of additive fuels.**
(free for use).

EMR **Supply and treatment of additive fuels.**
(free for use).

EMS **Supply and treatment of additive fuels.**
(free for use).

EMT **Supply and treatment of additive fuels.**
(free for use).

EMU **Supply and treatment of additive fuels.**
(free for use).

EMV **Lubricant supply system.**

EMX **Fluid supply system for control and protection equipment.**

EMY **Control and protection equipment.**

EN **Supply of other fuels (use only for combinations of different fuel types).**

ENA **Supply of other fuels (use only for combination of different fuel types).**
(free for use).

ENB **Supply of other fuels (use only for combination of different fuel types).**
(free for use).

ENC **Supply of other fuels (use only for combination of different fuel types).**
(free for use).

END **Supply of other fuels (use only for combination of different fuel types).**
(free for use).

ENE **Supply of other fuels (use only for combination of different fuel types).**
(free for use).

ENF **Supply of other fuels (use only for combination of different fuel types).**
(free for use).

ENG **Supply of other fuels (use only for combination of different fuel types).**
(free for use).

ENH **Supply of other fuels (use only for combination of different fuel types).**
(free for use).

ENJ **Supply of other fuels (use only for combination of different fuel types).**
(free for use).

ENK **Supply of other fuels (use only for combination of different fuel types).**
(free for use).

ENL **Supply of other fuels (use only for combination of different fuel types).**
(free for use).

ENM **Supply of other fuels (use only for combination of different fuel types).**
(free for use).

ENN **Supply of other fuels (use only for combination of different fuel types).**
(free for use).

ENP **Supply of other fuels (use only for combination of different fuel types).**
(free for use).

ENQ **Supply of other fuels (use only for combination of different fuel types).**
(free for use).

ENR **Supply of other fuels (use only for combination of different fuel types).**
(free for use).

ENS **Supply of other fuels (use only for combination of different fuel types).**
(free for use).

ENT **Supply of other fuels (use only for combination of different fuel types).**
(free for use).

CONVENTIONAL FUEL SUPPLY AND RESIDUES DISPOSAL

ENU Supply of other fuels (use only for combination of different fuel types).
(free for use).
ENV Lubricant supply system.
ENX Fluid supply system for control and protection equipment.
ENY Control and protection equipment.

EP Treatment of other fuels (use only for combinations of different fuel types).

EPA Treatment of other fuels (use only for combinations of different fuel types).
(free for use).
EPB Treatment of other fuels (use only for combinations of different fuel types).
(free for use).
EPC Treatment of other fuels (use only for combinations of different fuel types).
(free for use).
EPD Treatment of other fuels (use only for combinations of different fuel types).
(free for use).
EPE Treatment of other fuels (use only for combinations of different fuel types).
(free for use).
EPF Treatment of other fuels (use only for combinations of different fuel types).
(free for use).
EPG Treatment of other fuels (use only for combinations of different fuel types).
(free for use).
EPH Treatment of other fuels (use only for combinations of different fuel types).
(free for use).
EPJ Treatment of other fuels (use only for combinations of different fuel types).
(free for use).
EPK Treatment of other fuels (use only for combinations of different fuel types).
(free for use).
EPL Treatment of other fuels (use only for combinations of different fuel types).
(free for use).
EPM Treatment of other fuels (use only for combinations of different fuel types).
(free for use).
EPN Treatment of other fuels (use only for combinations of different fuel types).
(free for use).
EPP Treatment of other fuels (use only for combinations of different fuel types).
(free for use).
EPQ Treatment of other fuels (use only for combinations of different fuel types).
(free for use).
EPR Treatment of other fuels (use only for combinations of different fuel types).
(free for use).
EPS Treatment of other fuels (use only for combinations of different fuel types).
(free for use).
EPT Treatment of other fuels (use only for combinations of different fuel types).
(free for use).
EPU Treatment of other fuels (use only for combinations of different fuel types).
(free for use).
EPV Lubricant supply system.
EPX Fluid supply system for control and protection equipment.
EPY Control and protection equipment.

EQ Conversion of other fuels (use only for combinations of different fuel types).

EQA Conversion of other fuels (use only for combinations of different fuel types).
(free for use).
EQB Conversion of other fuels (use only for combinations of different fuel types).
(free for use).
EQC Conversion of other fuels (use only for combinations of different fuel types).
(free for use).
EQD Conversion of other fuels (use only for combinations of different fuel types).
(free for use).

CONVENTIONAL FUEL SUPPLY AND RESIDUES DISPOSAL

EQE Conversion of other fuels (use only for combinations of different fuel types).
(free for use).

EQF Conversion of other fuels (use only for combinations of different fuel types).
(free for use).

EQG Conversion of other fuels (use only for combinations of different fuel types).
(free for use).

EQH Conversion of other fuels (use only for combinations of different fuel types).
(free for use).

EQJ Conversion of other fuels (use only for combinations of different fuel types).
(free for use).

EQK Conversion of other fuels (use only for combinations of different fuel types).
(free for use).

EQL Conversion of other fuels (use only for combinations of different fuel types).
(free for use).

EQM Conversion of other fuels (use only for combinations of different fuel types).
(free for use).

EQN Conversion of other fuels (use only for combinations of different fuel types).
(free for use).

EQP Conversion of other fuels (use only for combinations of different fuel types).
(free for use).

EQQ Conversion of other fuels (use only for combinations of different fuel types).
(free for use).

EQR Conversion of other fuels (use only for combinations of different fuel types).
(free for use).

EQS Conversion of other fuels (use only for combinations of different fuel types).
(free for use).

EQT Conversion of other fuels (use only for combinations of different fuel types).
(free for use).

EQU Conversion of other fuels (use only for combinations of different fuel types).
(free for use).

EQV Lubricant supply system.

EQX Fluid supply system for control and protection equipment.

EQY Control and protection equipment.

ER Ignition fuel supply.

ERA Pulverized coal supply system.
from excl. receiving point
to excl. branch to boiler or
to excl. other users.

ERB Oil supply system.
from excl. receiving point
to excl. branch to boiler or
to excl. other users.

ERC Gas supply system.
from excl. receiving point
to excl. branch to boiler or
to excl. other users.

ERV Lubricant supply system.

ERX Fluid supply system for control and protection equipment.

ERY Control and protection equipment.

ET Ash and slag removal system (from excl. removal equipment).

ETA Wet ash conveying system.
from excl. removal equipment or
from excl. receiving point
to excl. storage facility or
to excl. discharge into other system.

ETB Storage or settling pond for wet ash.
from excl. receiving point
to incl. removal equipment.

ETC Wet ash dredger.
from excl. receiving point
to excl. discharge into other system.

ETD Conveying system for granulate.
from excl. removal equipment
to excl. storage facility or
to excl. discharge into other system.

ETE Storage system for granulate.
from excl. receiving point
to incl. removal equipment

ETG Conveying system for dry ash.
from excl. removal equipment (boiler, electrostatic precipitator)
to excl. storage facilities or
to excl. discharge into other system.

CONVENTIONAL FUEL SUPPLY AND RESIDUES DISPOSAL

ETH **Storage system for dry ash.**
from excl. receiving point
to incl. removal equipment.

ETK **Common conveying system for wet and dry ash.**
from excl. receiving point
to excl. storage facility or
to excl. discharge into other system.

ETL **Common storage system for wet and dry ash.**
from excl. receiving point
to incl. removal equipment.

ETM **Settling plant for wet and dry ash.**
from excl. receiving point from conveying system
to excl. pit or
to excl. discharge into other system

ETN **Forwarding, distribution, recovery and disposal systems for flushing and ash water.**
from excl. inlet or
from incl. branch t
o excl. inlet to other system.

ETP **Generation and distribution systems for carrier air.**
from excl. branch or
from incl. compressor system
to excl. inlet to conveying system..

ETV **Lubricant supply system.**

ETX **Fluid supply system for control and protection equipment.**

ETY **Control and protection equipment.**

EU **Treatment and transport system for combustion, fuel treatment, fuel conversion, flue gas cleaning, gas generation residues.**

EUA **Treatment system for fuel treatment residues.**
from incl. inlet
to incl. outlet.

EUB **Treatment system for fuel conversion residues.**
from incl. inlet
to incl. outlet.

EUC **Treatment system for fuel combustion residues.**
from incl. inlet
to incl. outlet.

EUD **Treatment system for flue gas cleaning residues.**
from incl. inlet
to incl. outlet.

EUE **Treatment system for gas generation and treatment residues.**
from incl. inlet
to incl. outlet.

EUF **Treatment system for fuel treatment residues (only if *EUA* is not sufficient for identification).**
from incl. inlet
to incl. outlet.

EUG **Treatment system for fuel treatment residues (only if *EUA* and *EUF* are not sufficient for identification).**
from incl. inlet
to incl. outlet.

EUH **Treatment system for fuel conversion residues (only if *EUB* is not sufficient for identification).**
from incl. inlet
to incl. outlet.

EUJ **Treatment system for fuel conversion residues (only if *EUB* and *EUH* are not sufficient for identification).**
from incl. inlet
to incl. outlet.

EUK **Treatment system for fuel combustion residues (only if *EUC* is not sufficient for identification).**
from incl. inlet
to incl. outlet.

EUL **Treatment system for fuel combustion residues (only if *EUC* and *EUK* are not sufficient for identification).**
from incl. inlet
to incl. outlet.

EUM **Treatment system for flue gas cleaning residues (only if *EUD* is not sufficient for identification).**
from incl. inlet
to incl. outlet.

EUN **Treatment system for flue gas cleaning residues (only if *EUD* and *EUM* are not sufficient for identification).**
from incl. inlet
to incl. outlet.

EUP **Treatment system for gas generation and treatment residues (only if *EUE* is not sufficient for identification).**
from incl. inlet
to incl. outlet.

CONVENTIONAL FUEL SUPPLY AND RESIDUES DISPOSAL

EUQ Treatment system for gas generation and treatment residues (only if *EUE* and *EUP* are not sufficient for identification).
from incl. inlet to incl. outlet.
EUV Lubricant supply system.
EUX Fluid supply system for control and protection equipment.
EUY Control and protection equipment.

EV Lubricant supply system.

EVA Lubricant supply system.
(free for use).
EVB Lubricant supply system.
(free for use).
EVC Lubricant supply system.
(free for use).
EVD Lubricant supply system.
(free for use).
EVE Lubricant supply system.
(free for use).
EVF Lubricant supply system.
(free for use).
EVG Lubricant supply system.
(free for use).
EVH Lubricant supply system.
(free for use).
EVJ Lubricant supply system.
(free for use).
EVK Lubricant supply system.
(free for use).
EVL Lubricant supply system.
(free for use).
EVM Lubricant supply system.
(free for use).
EVN Lubricant supply system.
(free for use).
EVP Lubricant supply system.
(free for use).
EVQ Lubricant supply system.
(free for use).
EVR Lubricant supply system.
(free for use).
EVS Lubricant supply system.
(free for use).
EVT Lubricant supply system.
(free for use).
EVU Lubricant supply system.
(free for use).

EW Sealing/loosening medium supply.

EWA Sealing/loosening medium supply.
(free for use).
EWB Sealing/loosening medium supply.
(free for use).
EWC Sealing/loosening medium supply.
(free for use).
EWD Sealing/loosening medium supply.
(free for use).
EWE Sealing/loosening medium supply.
(free for use).
EWF Sealing/loosening medium supply.
(free for use).
EWG Sealing/loosening medium supply.
(free for use).
EWH Sealing/loosening medium supply.
(free for use).
EWJ Sealing/loosening medium supply.
(free for use).
EWK Sealing/loosening medium supply.
(free for use).
EWL Sealing/loosening medium supply.
(free for use).
EWM Sealing/loosening medium supply.
(free for use).
EWN Sealing/loosening medium supply.
(free for use).
EWP Sealing/loosening medium supply.
(free for use).
EWQ Sealing/loosening medium supply.
(free for use).
EWR Sealing/loosening medium supply.
(free for use).
EWS Sealing/loosening medium supply.
(free for use).
EWT Sealing/loosening medium supply.
(free for use).
EWU Sealing/loosening medium supply.
(free for use).
EWV Lubricant supply system.
(free for use).
EWX Fluid supply system for control and protection equipment.
EWY Control and protection equipment.

EX Fluid supply system for control and protection equipment.

EXA Fluid supply system for control and protection equipment.
(free for use).
EXB Fluid supply system for control and protection equipment.
(free for use).
EXC Fluid supply system for control and protection equipment.
(free for use).

CONVENTIONAL FUEL SUPPLY AND RESIDUES DISPOSAL

EXD Fluid supply system for control and protection equipment.
(free for use).
EXE Fluid supply system for control and protection equipment.
(free for use).
EXF Fluid supply system for control and protection equipment.
(free for use).
EXG Fluid supply system for control and protection equipment.
(free for use).
EXH Fluid supply system for control and protection equipment.
(free for use).
EXJ Fluid supply system for control and protection equipment.
(free for use).
EXK Fluid supply system for control and protection equipment.
(free for use).
EXL Fluid supply system for control and protection equipment.
(free for use).
EXM Fluid supply system for control and protection equipment.
(free for use).
EXN Fluid supply system for control and protection equipment.
(free for use).
EXP Fluid supply system for control and protection equipment.
(free for use).
EXQ Fluid supply system for control and protection equipment.
(free for use).
EXR Fluid supply system for control and protection equipment.
(free for use).
EXS Fluid supply system for control and protection equipment.
(free for use).
EXT Fluid supply system for control and protection equipment.
(free for use).
EXU Fluid supply system for control and protection equipment.
(free for use).

EY Control and protection equipment.

EYA Control and protection equipment.
(free for use).
EYB Control and protection equipment.
(free for use).
EYC Control and protection equipment.
(free for use).
EYD Control and protection equipment.
(free for use).
EYE Control and protection equipment.
(free for use).
EYF Control and protection equipment.
(free for use).
EYG Control and protection equipment.
(free for use).
EYH Control and protection equipment.
(free for use).
EYJ Control and protection equipment.
(free for use).
EYK Control and protection equipment.
(free for use).
EYL Control and protection equipment.
(free for use).
EYM Control and protection equipment.
(free for use).
EYN Control and protection equipment.
(free for use).
EYP Control and protection equipment.
(free for use).
EYQ Control and protection equipment.
(free for use).
EYR Control and protection equipment.
(free for use).
EYS Control and protection equipment.
(free for use).
EYT Control and protection equipment.
(free for use).
EYU Control and protection equipment.
(free for use).

G

WATER SUPPLY AND DISPOSAL

GA Raw water supply.

GB Treatment system (carbonate hardness removal) incl. cooling tower make-up water treatment system.

GC Treatment system (demineralization).

GD Treatment system (others).

GH Distribution systems (not drinking water).

GK Drinking water supply.

GM Process drainage system.

GN Process drains treatment system.

GQ Domestic waste water collection and drainage systems.

GR Domestic waste water treatment system.

GT Water recovery from waste water.

GU Rainwater collection and drainage systems incl. treatment system.

GV Lubricant supply system.

GW Sealing fluid supply system.

GX Fluid supply system for control and protection equipment.

GY Control and protection equipment.

GA Raw water supply.

GAA Extraction, mechanical cleaning.
from incl. intake
to incl. mechanical cleaning system outlet.

GAC Piping and channel system.
from excl. intake or
from excl. outlet of other system
to excl. inlet to other system.

GAD Storage system.
from incl. storage system inlet t
o incl. storage system outlet, incl. intake and outfall.

GAF Pump system.
from incl. pump system suction nozzle
to incl. pump system discharge nozzle.

GAV Lubricant supply system.

GAX Fluid supply system for control and protection equipment.

GAY Control and protection equipment.

GB Treatment system (carbonate hardness removal) incl. cooling tower make-up water treatment system.

GBB Filtering, mechanical cleaning system.
from incl. separation equipment inlet
to incl. separation equipment outlet.

GBC Aeration, gas injection system.
from excl. atmosphere or
from incl. gas supply.

GBD Precipitation system (e.g. for carbonate hardness removal).
from incl. precipitation equipment inlet
to incl. precipitation equipment outlet.

GBE Acid proportioning system (e.g. for carbonate hardness removal).
from incl. acid proportioning equipment
from excl. branch off chemicals supply system
to excl. inlet to other system.

GBF Ion exchange, reverse osmosis system (e.g. for carbonate hardness removal).
from incl. ion exchanger inlet or from incl. isolating valve of chemicals supply system or auxiliary fluid supply system upstream of ion exchanger.

GBG Evaporation system (e.g. for carbonate hardness removal).
from incl. water inlet
to incl. steam outlet and
from incl. heating steam inlet
to incl. condensate outlet.

GBH Deaeration system.
from incl. deaerator or tank inlet
to incl. tank outlet incl. warm-up equipment of vapour condenser.

GBJ Preheating, cooling system.
from incl. preheater or cooler inlet
to incl. preheater or cooler outlet.

GBK Piping system, temporary storage system, pump system for main fluid.
Piping system:
from excl. intake or
from excl. outlet of other system
to excl. inlet to other system
to incl. fluid treatment system outlet.
Temporary storage system:
from incl. temporary storage system inlet
to incl. temporary storage system outlet.
Pump system:
from incl. pump system suction nozzle
to incl. pump system discharge nozzle.

GBL Storage system outside fluid treatment system (if not part of another system).
from incl. inlet storage system
to excl. outlet storage system incl. intake and outfall.

GBN Chemicals supply system.
from incl. intake or
from incl. storage tank
to excl. discharge into other system.

GBP Regeneration, flushing equipment.
from incl. system inlet
to excl. inlet to other system
from excl. chemicals or auxiliary fluid supply system and flushing air supply system to incl. regenerating, flushing equipment.

GBQ Injection system for main fluid (for hardness stablisation).
from incl. injection equipment
from excl. branch off chemicals supply system
to excl. inlet to other system.

GBR Flushing water and residues removal system incl. neutralization.
from excl. outlet of respective system
to excl. discharge into disposal system.

GBS Sludge thickening system.
from excl. outlet of respective system
to excl. discharge into other system.

GBT Heating, cooling and flushing fluid distribution system.
from incl. heating, cooling, flushing fluid generation equipment or from excl. branch off heating, cooling, flushing fluid supply system
to excl. user and from excl. user.

GBV Lubricant supply system.
GBX Fluid supply system for control and protection equipment.
GBY Control and protection equipment.

GC Treatment system (demineralization).

GCB Filtering, mechanical cleaning system.
from incl. separation equipment inlet
to incl. separation equipment outlet.

GCC Aeration, gas injection system.
from excl. atmosphere or
from incl. gas supply.

GCD Precipitation system (e.g. for carbonate hardness removal).
from incl. precipitation equipment inlet
to incl. precipitation equipment outlet.

GCE Acid proportioning system (e.g. for carbonate hardness removal).
from incl. acid proportioning equipment or
from excl. branch off chemicals supply system
to excl. inlet to other system.

GCF Ion exchange, reverse osmosis system (e.g. for demineralization).
from incl. ion exchanger inlet
from incl. isolating valve of chemicals supply system or auxiliary fluid supply system upstream of ion exchanger.

GCG Evaporation system (e.g. for demineralization).
from incl. water inlet
to incl. steam outlet and
from incl. heating steam inlet
to incl. condensate outlet.

GCH Deaeration system.
from incl. deaerator or tank inlet
to incl. tank outlet incl. warm-up equipment of vapour condenser.

GCJ Preheating, cooling system.
from incl. preheater or cooler inlet
to incl. preheater or cooler outlet.

GCK Piping system, temporary storage system, pump system for main fluid.
Piping system:
from excl. intake or
from excl. outlet of other system
to excl. inlet to other system
to incl. fluid treatment system outlet.
Temporary storage system:
from incl. temporary storage system inlet
to incl. temporary storage system outlet.
Pump System:
from incl. pump system suction nozzle
to incl. pump system discharge nozzle.

GCL Storage system outside fluid treatment system (if not part of another system).
from incl. inlet storage system
to incl. outlet storage system incl. intake and outfall.

GCN Chemicals supply system.
from incl. intake or
from incl. storage tank
to excl. discharge into other system.

GCP Regeneration, flushing equipment.
from incl. system inlet
to excl. inlet to other system
from excl. chemicals or auxiliary fluid supply system and flushing air supply system
to incl. regenerating, flushing equipment.

GCQ Injection system for main fluid.
from incl. injection equipment or
from excl. branch off chemicals supply system
to excl. inlet to other system.

GCR Flushing water and residues removal system incl. neutralization.
from excl. outlet of respective system
to excl. discharge into disposal system.

GCS Sludge thickening system.
from excl. outlet of respective system
to excl. discharge into other system.

GCT Heating, cooling and flushing fluid distribution system.
from incl. heating, cooling and flushing fluid generation equipment or
from excl. branch off heating, cooling, flushing fluid supply system
to excl. user and
from excl. user.

GCV Lubricant supply system.
GCX Fluid supply system for control and protection equipment.
GCY Control and protection equipment.

GD Treatment system (others).

GDB Filtering, mechanical cleaning system.
from incl. separation equipment inlet
to incl. separation equipment outlet.

GDC Aearation, gas injection system.
from excl. atmosphere or
from incl. gas supply.

GDD Precipitation system (e.g. for carbonate hardness removal).
from incl. precipitation equipment inlet
to incl. precipitation equipment outlet.

GDE Acid proportioning system (e.g. for carbonate hardness removal).
from incl. acid proportioning equipment or
from excl. branch off chemicals supply system
to excl. inlet to other system.

GDF Ion exchange, reverse osmosis system (e.g. for demineralization).
from incl. ion exchanger inlet or
from incl. isolating valve of chemicals supply system or auxiliary fluid supply system upstream of ion exchanger.

GDG Evaporation system (e.g. for demineralization).
from incl. water inlet
to incl. steam outlet and
from incl. heating steam inlet
to incl. condensate outlet.

GDH Deaeration system.
from incl. deaerator or tank inlet
to incl. tank outlet incl. warm-up equipment of vapour condenser.

GDJ Preheating, cooling system.
from incl. preheater or cooler inlet
to incl. preheater or cooler outlet.

GDK Piping system, temporary storage system, pump system for main fluid.
Piping system:
from excl. intake or
from excl. outlet of other system
to excl. inlet to other system
to incl. fluid treatment system outlet.
Temporary storage system:
from incl. temporary storage system inlet
to incl. temporary storage system outlet.
Pump System:
from incl. pump system suction nozzle
to incl. pump system discharge nozzle.

GDL Storage system outside fluid treatment system (if not part of another system).
from incl. inlet storage system
to incl. outlet storage system incl. intake and outfall.

GDN Chemicals supply system.
from incl. intake or
from incl. storage tank
to excl. discharge into other system.

GDP Regeneration flushing equipment.
from incl. system inlet
to excl. inlet to other system
from excl. chemicals or auxiliary fluid supply system and flushing air supply system
to incl. regenerating, flushing equipment.

GDQ Injection system for main fluid.
from incl. injection equipment or
from excl. branch off chemicals supply system
to excl. inlet to other system.

GDR Flushing water and residues removal system incl. neutralization.
from excl. outlet of respective system
to excl. discharge into disposal system.

GDS Sludge thickening system.
from excl. outlet of respective system
to excl. discharge into other system.

GDT Heating cooling and flushing fluid distribution system.
from incl. heating, cooling and flushing fluid generation equipment or
from excl. branch off heating, cooling, flushing fluid supply system
to excl. user and
from excl. user.

GDV Lubricant supply system.

GDX Fluid supply system for control and protection equipment.

GDY Control and protection equipment.

GH Distribution systems (not drinking water).

GHA Distribution systems (not drinking water).
(free for use for other kinds of water).

GHB Distribution systems after treatment (carbonate hardness removal).
to excl. inlet to other system.

GHC Distribution systems after treatment (demineralization).
to excl. inlet into other system.

GHD Distribution systems after treatment (others).
to excl. inlet into other system.

GHE Distribution systems (not drinking water).
(free for use for other kinds of water).

GHF Distribution systems (not drinking water).
(free for use for other kinds of water).

GHG Distribution systems (not drinking water).
(free for use for other kinds of water).

GHH Distribution systems (not drinking water).
(free for use for other kinds of water).

GHJ Distribution systems (not drinking water).
(free for use for other kinds of water).

GHK Distribution systems (not drinking water).
(free for use for other kinds of water).
GHL Distribution systems (not drinking water).
(free for use for other kinds of water).
GHM Distribution systems for main machine sets.
(free for use for other kinds of water).
GHN Distribution systems (not drinking water).
(free for use for other kinds of water).
GHP Distribution systems (not drinking water).
(free for use for other kinds of water).
GHQ Distribution systems (not drinking water).
(free for use for other kinds of water).
GHR Distribution systems (not drinking water).
(free for use for other kinds of water).
GHS Distribution systems (not drinking water).
(free for use for other kinds of water).
GHT Distribution systems (not drinking water).
(free for use for other kinds of water).
GHU Distribution systems (not drinking water).
(free for use for other kinds of water).
GHX Fluid supply system for control and protection equipment.
GHY Control and protection equipment.

GK Drinking water supply.

GKA Receiving point.
GKB Storage, forwarding, distribution system.
GKC Drinking water supply in structures for switchgear.
GKE Drinking water supply in structures for conventional fuel supply and residue disposal.
GKG Drinking water supply in structures for water supply and discharge.
GKH Drinking water supply in structures for conventional heat generation.
GKL Drinking water supply in structures for steam, water, gas cycle.
GKM Drinking water supply in structures for main machine sets.
GKN Drinking water supply in structures for process energy supply systems.
GKP Drinking water supply in structures for circulation (cooling) water systems.
GKQ Drinking water supply in structures for circulatig (cooling) water systems (e.g. circulating water pumps and outfall).
GKR Drinking water supply in structures for circulatig (cooling) water systems (e.g. recirculation cooling).
GKS Drinking water supply in structures for ancillary systems.
GKU Drinking water supply in general service structures: transport, traffic, fencing, gardens and other purposes.
GKX Fluid supply system for control and protection equipment.
GKY Control and protection equipment.

GM Process drainage system.

GMA Central process drainage system.
GMB Process drainage system.
(free for use e.g. building-specific).
GMC Process drainage system in structures for switch gear.
GMD Process drainage system.
(free for use e.g. building-specific).
GME Process drainage system in structures for conventional fuel supply and residue disposal.
GMF Process drainage system for chemical flue gas treatment.
(free for use e.g. building-specific).
GMG Process drainage system in structures for water supply and discharge.
GMH Process drainage system in structures for conventional heat generation.
GMJ Process drainage system in structures for external systems (power plant specific).
(free for use e.g. building-specific).
GMK Process drainage system in general service structures.
(free for use e.g. building-specific).
GML Process drainage system in structures for steam, water, gas cycles.
GMM Process drainage system in structures for main machine sets.
GMN Process drainage system in structures for process energie supply.

GMP Process drainage system in structures for circulating (cooling) water systems (e.g. circulating water intake).

GMQ Process drainage system in structures for circulatig (cooling) water systems (e.g. circulating water pumps and outfall).

GMR Process drainage system in structures for circulatig (cooling) water systems (e.g. circulation cooling).

GMS Process drainage system in structures for ancillary systems.

GMT Process drainage system in structures for auxiliary systems.

GMU Process drainage system in general service structures: transport, traffic, fencing, gardens and other purposes.

GMX Fluid supply system for control and protection equipment.

GMY Control and protection equipment.

GN Process drains treatment system.

GNB Filtering mechanical cleaning system.
from incl. separation equipment inlet
to incl. separation equipment outlet.

GNC Aeration, gas injection system.
from excl. atmosphere or from incl. gas supply.

GND Precipitation system (e.g. for carbonate hardness removal).
from incl. precipitation equipment inlet
to incl. precipitation equipment outlet.

GNE Acid proportioning system (e.g. for carbonate hardness removal).
from incl. acid proportioning equipment or
from excl. branch off chemicals supply system
to excl. inlet to other system.

GNF Ion exchange system (e.g. for demineralization).
from incl. ion exchanger inlet
from incl. isolating valve of chemicals supply system or auxiliary fluid supply system upstream of ion exchanger.

GNG Evaporation system (e.g. for demineralization).
from incl. feedwater inlet
to incl. steam outlet and
from incl. heating steam inlet
to incl. condensate outlet.

GNH Deaeration system.
from incl. deaerator or tank inlet
to incl. tank outlet incl. warm-up equipment of vapour condenser.

GNJ Preheating, cooling system.
from incl. preheater or cooler inlet
to incl. preheater or cooler outlet.

GNK Piping system, temporary storage system, pump system for main fluid.
Piping system:
from excl. intake or
from excl. outlet of other system
to excl. inlet to other system
to incl. fluid treatment system outlet.
Temporary storage system:
from incl. temporary storage system inlet
to incl. temporary storage system outlet.
Pump System:
from incl. pump system suction nozzle
to incl. pump system discharge nozzle.

GNL Storage system outside fluid treatment system (if not part of another system).
from incl. inlet storage system
to incl. outlet storage system incl. intake and outfall.

GNN Chemicals supply system.
from incl. intake or
from incl. storage tank
to excl. discharge into other system.

GNP Regeneration, flushing equipment.
from incl. system inlet
to excl. inlet to other system
from excl. chemicals or auxiliary fluid supply system and flushing air supply system
to incl. regenerating, flushing equipment.

GNQ Injection system for main fluid.
from incl. injection equipment or
from excl. branch off chemicals supply system
to excl. inlet to other system.

GNR Flushing water and residues removal system incl. neutralization.
from excl. outlet of respective system
to excl. discharge into disposal system.

GNS Sludge thickening system.
from excl. outlet of respective system
to excl. discharge into other system.

GNT Heating, cooling and flushing fluid distribution system.
from incl. heating, cooling and flushing fluid generation equipment or
from excl. branch off heating, cooling, flushing fluid supply system
to excl. user and
from excl. user.

GNV Lubricant supply system.
GNX Fluid supply system for control and protection equipment.
GNY Control and protection equipment.

GQ Domestic waste water collection and drainage systems.

GQA Central domestic waste water collection and drainage systems.
GQB Domestic waste water collection and drainage systems, storage system.
GQC Domestic waste water collection and drainage systems in structures for switch gear.
GQE Domestic waste water collection and drainage systems in structures for conventional fuel supply and residue disposal.
GQG Domestic waste water collection and drainage systems in structures for water supply and discharge.
GQH Domestic waste water collection and drainage systems in structures for conventional heat generation.
GQL Domestic waste water collection and drainage systems in structures for steam, water, gas cycle.
GQM Domestic waste water collection and drainage systems in structures for main machine sets.
GQN Domestic waste water collection and drainage systems in structures for process energy supply.
GQP Domestic waste water collection and drainage systems in structures for circulating (cooling) water systems (e.g. circulating water intake).
GQQ Domestic waste water collection and drainage systems in structures for circulating (cooling) water systems (e.g. circulating water pumps and outfall).
GQS Domestic waste water collection and drainage systems in structures for ancillary systems.
GQT Domestic waste water collection and drainage systems in structures for auxiliary systems.
GQU Domestic waste water collection and drainage systems in general service structures: transport, traffic, fencing, gardens and other purposes.
GQX Fluid supply system for control and protection equipment.
GQY Control and protection equipment.

GR Domestic waste water treatment system.

GRB Filtering, mechanical cleaning system.
from incl. separation equipment inlet
to incl. separation equipment outlet.
GRC Aeration, gas injection system.
from excl. atmosphere or
from incl. gas supply.
GRD Precipitation system (e.g. for carbonate hardness removal).
from incl. precipitation equipment inlet
to incl. precipitation equipment outlet.
GRE Acid proportioning system (e.g. for carbonate hardness removal).
from incl. acid proportioning equipment or
from excl. branch off chemicals supply system
to excl. inlet to other system.
GRF Ion exchange system (e.g. for demineralization).
from incl. ion exchanger inlet
from incl. isolating valve of chemicals supply system or auxiliary fluid supply system upstream of ion exchanger.
GRG Evaporation system (e.g. for demineralization).
from incl. feedwater inlet
to incl. steam outlet and
from incl. heating steam inlet
to incl. condensate outlet.
GRH Deaeration system.
from incl. deaerator or tank inlet
to incl. tank outlet incl. warm-up equipment of vapour condenser.
GRJ Preheating, cooling system.
from incl. preheater or cooler inlet
to incl. preheater or cooler outlet.
GRK Piping system. temporary storage system, pump system for main fluid.
Piping system:
from excl. intake or
from excl. outlet of other system
to excl. inlet to other system
to incl. fluid treatment system outlet.
Temporary storage system:
from incl. temporary storage system inlet
to incl. temporary storage system outlet.
Pump System:
from incl. pump system suction nozzle
to incl. pump system discharge nozzle.

GRL Storage system outside fluid treatment system (if not part of another system).
from incl. inlet storage system
to incl. outlet storage system incl. intake and outfall.

GRN Chemicals supply system.
from incl. intake or
from incl. storage tank
to excl. discharge into other system.

GRP Regeneration, flushing equipment.
from incl. system inlet
to excl. inlet to other system
from excl. chemicals or auxiliary fluid supply system and flushing air supply system
to incl. regenerating, flushing equipment.

GRQ Injection system for main fluid.
from incl. injection equipment or
from excl. branch off chemicals supply system
to excl. inlet to other system.

GRR Flushing water and residues removal system incl. neutralization.
from excl. outlet of respective system
to excl. discharge into disposal system.

GRS Sludge thickening system.
from excl. outlet of respective system
to excl. discharge into other system.

GRT Heating, cooling and flushing fluid distribution system.
from incl. heating, cooling and flushing fluid generation equipment or
from excl. branch off heating, cooling, flushing fluid supply system
to excl. user and from excl. user.

GRV Lubricant supply system.

GRX Fluid supply system for control and protection equipment.

GRY Control and protection equipment.

GT Water recovery from waste water.

GTA Water recovery from waste water.
(free for use).

GTB Water recovery from waste water.
(free for use).

GTC Water recovery from waste water.
(free for use).

GTD Water recovery from waste water.
(free for use).

GTE Water recovery from waste water.
(free for use).

GTF Water recovery from waste water.
(free for use).

GTG Water recovery from waste water.
(free for use).

GTH Water recovery from waste water.
(free for use).

GTJ Water recovery from waste water.
(free for use).

GTK Water recovery from waste water.
(free for use).

GTL Water recovery from waste water.
(free for use).

GTM Water recovery from waste water.
(free for use).

GTN Water recovery from waste water.
(free for use).

GTP Water recovery from waste water.
(free for use).

GTQ Water recovery from waste water.
(free for use).

GTR Water recovery from waste water.
(free for use).

GTS Water recovery from waste water.
(free for use).

GTT Water recovery from waste water.
(free for use).

GTU Water recovery from waste water.
(free for use).

GTX Fluid supply system for control and protection equipment.

GTY Control and protection equipment.

GU Rainwater collection and drainage systems incl. treatment system.

GUA Central rainwater collection and drainage system.

GUB Central rainwater treatment system.

GUC Rainwater collection and drainage systems incl. treatment system in structures for switchgear.

GUE Rainwater collection and drainage systems incl. treatment system in structures for conventional fuel supply and residue disposal.

GUG Rainwater collection and drainage systems incl. treatment system in structures for water supply and discharge.

GUH Rainwater collection and drainage systems incl. treatment system in structures for conventional heat generation.

GUL Rainwater collection and drainage systems incl. treatment system in structures for steam, water, gas cycle.

GUM Rainwater collection and drainage systems incl. treatment system in structures for main machine sets.
GUN Rainwater collection and drainage systems incl. treatment system in structures for process energy supply.
GUP Rainwater collection and drainage systems incl. treatment system in structures for circulating (cooling) water systems (e.g. circulating water intake).
GUQ Rainwater collection and drainage systems incl. treatment system in structures for circulating (cooling) water systems (e.g. circulating water pumps and outfall).
GUS Rainwater collection and drainage systems incl. treatment system in structures for ancillary systems.
GUT Rainwater collection and drainage systems incl. treatment system in structures for auxiliary systems.
GUU Rainwater collection and drainage systems incl. treatment system in general service structures: transport, traffic, fencing, gardens and other purposes.
GUX Fluid supply system for control and protection equipment.
GUY Control and protection equipment.

GV Lubricant supply system.

GVA Lubricant supply system. (free for use).
GVB Lubricant supply system. (free for use).
GVC Lubricant supply system. (free for use).
GVD Lubricant supply system. (free for use).
GVE Lubricant supply system. (free for use).
GVF Lubricant supply system. (free for use).
GVG Lubricant supply system. (free for use).
GVH Lubricant supply system. (free for use).
GVJ Lubricant supply system. (free for use).
GVK Lubricant supply system. (free for use).
GVL Lubricant supply system. (free for use).
GVM Lubricant supply system. (free for use).
GVN Lubricant supply system. (free for use).
GVP Lubricant supply system. (free for use).
GVQ Lubricant supply system. (free for use).
GVR Lubricant supply system. (free for use).
GVS Lubricant supply system. (free for use).
GVT Lubricant supply system. (free for use).
GVU Lubricant supply system. (free for use).

GW Sealing fluid supply system.

GWA Sealing fluid supply system. (free for use).
GWB Sealing fluid supply system. (free for use).
GWC Sealing fluid supply system. (free for use).
GWD Sealing fluid supply system. (free for use).
GWE Sealing fluid supply system. (free for use).
GWF Sealing fluid supply system. (free for use).
GWG Sealing fluid supply system. (free for use).
GWH Sealing fluid supply system. (free for use).
GWJ Sealing fluid supply system. (free for use).
GWK Sealing fluid supply system. (free for use).
GWL Sealing fluid supply system. (free for use).
GWM Sealing fluid supply system. (free for use).
GWN Sealing fluid supply system. (free for use).
GWP Sealing fluid supply system. (free for use).
GWQ Sealing fluid supply system. (free for use).
GWR Sealing fluid supply system. (free for use).
GWS Sealing fluid supply system. (free for use).
GWT Sealing fluid supply system. (free for use).
GWU Sealing fluid supply system. (free for use).

GX Fluid supply system for control and protection equipment.

GXA Fluid supply system for control and protection equipment.
(free for use).

GXB Fluid supply system for control and protection equipment.
(free for use).

GXC Fluid supply system for control and protection equipment.
(free for use).

GXD Fluid supply system for control and protection equipment.
(free for use).

GXE Fluid supply system for control and protection equipment.
(free for use).

GXF Fluid supply system for control and protection equipment.
(free for use).

GXG Fluid supply system for control and protection equipment.
(free for use).

GXH Fluid supply system for control and protection equipment.
(free for use).

GXJ Fluid supply system for control and protection equipment.
(free for use).

GXK Fluid supply system for control and protection equipment.
(free for use).

GXL Fluid supply system for control and protection equipment.
(free for use).

GXM Fluid supply system for control and protection equipment.
(free for use).

GXN Fluid supply system for control and protection equipment.
(free for use).

GXP Fluid supply system for control and protection equipment.
(free for use).

GXQ Fluid supply system for control and protection equipment.
(free for use).

GXR Fluid supply system for control and protection equipment.
(free for use).

GXS Fluid supply system for control and protection equipment.
(free for use).

GXT Fluid supply system for control and protection equipment.
(free for use).

GXU Fluid supply system for control and protection equipment.
(free for use).

GY Control and protection equipment.

GYA Control and protection equipment.
(free for use).

GYB Control and protection equipment.
(free for use).

GYC Control and protection equipment.
(free for use).

GYD Control and protection equipment.
(free for use).

GYE Control and protection equipment.
(free for use).

GYF Control and protection equipment.
(free for use).

GYG Control and protection equipment.
(free for use).

GYH Control and protection equipment.
(free for use).

GYJ Control and protection equipment.
(free for use).

GYK Control and protection equipment.
(free for use).

GYL Control and protection equipment.
(free for use).

GYM Control and protection equipment.
(free for use).

GYN Control and protection equipment.
(free for use).

GYP Control and protection equipment.
(free for use).

GYQ Control and protection equipment.
(free for use).

GYR Control and protection equipment.
(free for use).

GYS Control and protection equipment.
(free for use).

GYT Control and protection equipment.
(free for use).

GYU Control and protection equipment.
(free for use).

H

CONVENTIONAL HEAT GENERATION (HRSG)

HA Pressure system.

HB Support structure, enclosure, steam generator interior.

HC Fireside heat transfer surface cleaning equipment.

HD Ash and slag removal.

HF Bunker, feeder and pulverizing system.

HH Main firing system (electric-powered as well).

HJ Ignition firing equipment (if separate), supplementary firing as well (e.g. for HRSG).

HL Combustion air system (primary air, secondary air).

HM Gas heating system (for closed cycle).

HN Flue gas exhaust (without flue gas treatment).

HR Chemical flue gas treatment system incl.residues removal, adsorptive process.

HS Chemical flue gas treatment system incl. residues removal, catalytic process.

HT Chemical flue gas treatment system incl. residues removal, absorptive process.

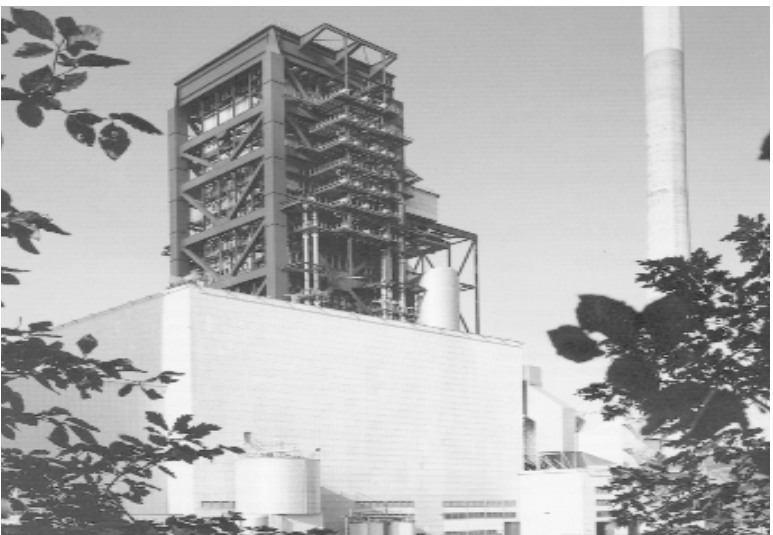
HU Flue gas reheating system.

HV Lubricant supply system.

HW Sealing fluid supply system.

HX Fluid supply system for control and protection equipment.

HY Control and protection equipment.



CONVENTIONAL HEAT GENERATION (HRSG)

HA Pressure system.

HAA LP part-flow feed heating system (flue-gas-heated).
from incl. LP part-flow feed heating system inlet
to incl. LP part-flow feed heating system outlet.

HAB HP part-flow feed heating system (flue-gas-heated).
from incl. HP part-flow feed heating system inlet
to incl. HP part-flow feed heating system outlet.

HAC Economizer system.
from incl. boiler inlet header
to excl. evaporator inlet incl. control and auxiliary heat transfer surfaces.
Low pressure: HAC01 - 19
Intermediate pressure: HAC20 - 49
High pressure: HAC50 - 99.

HAD Evaporator system.
from incl. evaporator system inlet
to incl. evaporator system outlet and
to excl. water/steam separator in once-through boiler
to excl. water/steam separator and water collecting vessel in drum boiler.
Low pressure: HAD01 - 19
Intermediate pressure: HAD20 - 49
High pressure: HAD50 - 99.

HAG Circulation system.
from excl. water/steam separator and
from incl. water/steam separator (start-up vessel) in once-trough boiler or
from excl. water/steam separator and water collecting vessel in drum boiler.
to excl. inlet to heat transfer surface system (removal systems are classified under *L*) or
to excl. feedwater system.

HAH Superheater system.
from excl. evaporator system outlet
to incl. boiler outlet header.
Low pressure: HAH01 - 19
Intermediate pressure: HAH20 - 49
High pressure: HAH50 - 99.

HAJ Reheat system.
from incl. reheater inlet header
to incl. reheater outlet header.

HAK Secondary reheat system.
from incl. second reheater inlet header
to incl. second reheater outlet header.

HAM Triflux system.
from incl. triflux system inlet
to incl. triflux system outlet

HAN Pressure system drainage and venting systems.
from incl. collecting point or
from excl. final drain/vent valve
to excl. discharge into other system.
Low pressure: HAN01 - 19
Intermediate pressure: HAN20 - 49
High pressure: HAN50 - 99.

HAV Lubricant supply system.

HAW Sealing fluid supply system.

HAX Fluid supply system for control and protection equipment.

HAY Control and protection equipment.

HB Support structure, enclosure, steam generator interior.

HBA Frame incl. foundations.

HBB Enclosures, insulations.

HBC Brick linings incl. insulating brickwork.

HBD Platforms, stairways.

HBK Steam generator interior.
from excl. inlet duct
to excl. flue gas exhaust.

HC Fireside heat transfer surface cleaning equipment.

HCA Air sootblowing system.
from excl. branch off supply system.

HCB Steam sootblowing system.
from excl. branch off supply system.

HCC Water sootblowing system.
from excl. branch off supply system.

HCD Flushing equipment.
from excl. branch off supply system.

HCE Rapping gear.

HCF Shot cleaning system.

HCH Sonic cleaning system.

HCV Lubricant supply system.

HCW Sealing fluid supply system.

HCX Fluid supply system for control and protection equipment.

HCY Control and protection equipment.

HD Ash and slag removal.

HDA Furnace ash and slag removal.
from incl. removal equipment
to excl. discharge into disposal system.

HDB Bed ash return.
from excl. furnace outlet or
from excl. bed ash removal outlet
to excl. furnace inlet.

HDC Flue dust return system.
from excl. removal equipment for heat recovery surfaces or
from excl. boiler flue gas dust separation equipment or
from excl. branch for flue dust return system
to excl. flue dust burner or
to excl. inlet to other system..

HDD Mechanical dust handling system.
from excl. flue gas duct inlet
to excl. flue gas duct outlet or
to excl. discharge to other system.

HDE Electristatic precispirator.
from excl. flue gas duct inlet
to excl. flue gas duct outlet or
to excl. discharge to other system.

HDF Cyclone dust removal and return system.
from excl. flue gas duct inlet
to excl.flue gas duct outlet
to excl. discharge to other system.

HDV Lubricant supply system.

HDW Sealing fluid supply system.

HDX Fluid supply system for control and protection equipment.

HDY Control and protection equipment.

HF Bunker, feeder and pulverizing system.

HFA Bunker for pulverizing system.
from excl. receiving point
to incl. outlet

HFB Feeder system.
from excl. bunker outlet
to excl. oversize reject shaft or pulverizing system.

HFC Pulverizing system (incl. classifier).
from incl. pulverizing system inlet
to excl. pulverizing coal line.

HFD Flue gas return system.
from excl. outlet of other system
to excl. pulverizing system

HFE Mill air system, carrier air system.
from incl. air inlet or
from excl. branch off *HLA*
to excl. downcomer shaft or
to excl. pulverizing system or
to excl. flue gas recirculation system.

HFF Vapour/exhaust gas system.
from excl. separation equipment
to excl. other system.

HFG Pulverized coal temporary storage bunker after central pulverizing system (indirect firing).
from excl. pulverizing system outlet
to incl. temporary storage bunker outlet, incl. rotary vane feeder.

HFV Lubricant supply system.

HFW Sealing fluid supply system.

HFX Fluid supply system for control and protection equipment.

HFY Control and protection equipment.

HH Main firing system (electric-powered as well).

HHA Main burners.
from incl. respective fuel-side and air-side burner inlet.

HHB Retarded combustion grate.
from incl. retarded combustion grate inlet
to excl. inlet to other system.

HHC Grate combustion system.
from incl. fuel receiving point or
from incl. grate combustion inlet
to excl. inlet to other system.

HHD Other burner equipment (e.g. vapour burner, flue dust burner).
from incl. inlet
to incl. outlet.

HHE Pulverized coal bin, forwarding and distribution system.
from excl. pulverizing system outlet or from excl. pulverized coal bin outlet after central pulverizing system (indirect feed) *HFG* or
from excl. outlet of other system
to excl. main burner equipment.

HHF Oil temporary storage, pump and distribution system.
from excl. branch off main supply line or
from incl. temporary storage tank
to excl. main burner equipment.

HHG Gas pressure reduction, distribution system.
from excl. branch off main supply line
to excl. main burner equipment.

HHH Temporary storage, forwarding and distribution system for other fuels, fluid 1.

HHJ Temporary storage, forwarding and distribution system for other fuels, fluid 2.

HHK Temporary storage, forwarding and distribution system for other fuels, fluid 3.

HHL Combustion air supply system.
from incl. branch off ducting system (*HLA*)
to excl. user.

HHM Atomizer medium supply system (steam).
from excl. branch off supply system
to excl. user.

HHN Atomizer medium supply system (air).
from excl. branch off supply system
to excl. user.

HHP Coolant supply system (steam).
from excl. branch off supply system
to excl. user.

HHQ Coolant supply system (air).
from excl. branch off supply system
to excl. user.

HHR Purging medium supply system (steam).
from excl. branch off supply system
to excl. user.

HHS Purging medium supply system (air).
from excl. branch off supply system
to excl. user.

HHT Heating medium supply system (steam).
from excl. branch off supply system
to excl. user and
from excl. user
to excl. inlet to other system.

HHU Heating medium supply system (hot water).
from excl. branch off supply system
to excl. user and
from excl. user
to excl. inlet to other system.

HHV Lubricant supply system.

HHW Sealing fluid supply system.

HHX Fluid supply system for control and protection equipment.

HHY Control and protection equipment.

HHZ Electric heating system.

HJ Ignition firing equipment (if separate), supplementary firing as well (e.g. for HRSG).

HJA Ignition burners, supplementary burners for HRSG.
from incl. resp. fuel-side and air-side burner inlet.

HJE Pulverized coal bin, forwarding and distribution system.
from excl. pulverizing system outlet or from excl. pulverized coal temporary storage bunker outlet (if central pulverizing system,* HFG*) or
from excl. outlet of other system
to excl. ignition burner equipment.

HJF Oil temporary storage, pump and distribution system.
from excl. branch off main supply line or
from incl. temporary storage tank
to excl. ignition burner equipment.

HJG Gas pressure reduction, distribution system.
from excl. branch off main supply line
to excl. supplementary burner equipment.

HJL Combustion air supply system.
from incl. branch off ducting system (*HLA*) or
from incl. air inlet, incl. fan
to excl. user.

HJM Atomizer medium supply system (steam).
from excl. branch off supply system
to excl. user.

HJN Atomizer medium supply system (air).
from excl. branch off supply system
to excl. user.

HJP Cooling supply system (steam).
from excl. branch off supply system
to excl. user.

HJQ Cooling supply system (air).
from excl. branch off supply system
to excl. user.

HJR Purging medium supply system (steam).
from excl. branch off supply system
to excl. user.

HJS Purging medium supply system (air).
from excl. branch off supply system
to excl. user.

HJT Heating medium supply system (steam).
from excl. branch off supply system
to excl. user and from excl. user
to excl. inlet to other system.

HJU Heating medium supply system (hot water).
from excl. branch off supply system
to excl. user and from excl. user
to excl. inlet to other system.

HJV Lubricant supply system.
HJW Sealing fluid supply system.
HJX Fluid supply system for control and protection equipment.
HJY Control and protection equipment.

HL Combustion air system (primary air, secondary air).

HLA Ducting system.
from incl. air inlet
to excl. branch off firing system or mill air system, carrier air system
to excl. branch to *HFE*, excl. fan system, air heater system and gas turbine exhaust gas system.

HLB Fan system, forced-draught fan system.
from incl. fan system inlet
to excl. fan system outlet.

HLC External air heating system (not flue-gas-heated).
from incl. heater inlet
to excl. heater outlet.

HLD Air heating system (flue-gas-heated).
from incl. heater inlet
to incl. heater outlet.

HLU Air pressure relief system.
Task: controlled relief of pressure in combustion air system.

HLV Lubricant supply system.
HLW Sealing fluid supply system.
HLX Fluid supply system for control and protection equipment.
HLY Control and protection equipment.

HM Gas heating system (for closed cycle).

HMA Primary heater (primary convection section).
from incl. cold gas inlet header or
from excl. heat exchanger cold gas outlet
to incl. primary heater outlet or
to excl. mixing header inlet.

HMB Radiation section.
from incl. mixing header inlet
to incl. radiation section outlet or
to excl. secondary heater inlet header.

HMC Secondary heater (second convection section).
from incl. inlet header
to incl. hot gas outlet header.

HMD Reheat system.
from incl. reheater inlet header
to incl. reheater outlet header.

HMV Lubricant supply system.
HMW Sealing fluid supply system.
HMX Fluid supply system for control and protection equipment.
HMY Control and protection equipment.

HN Flue gas exhaust (without flue gas treatment).

HNA Ducting system.
from excl. boiler outlet or
from excl. outlet of other system
to excl. smoke stack, excl. air heater, flue gas dust handling system, induced-draught fan system, gas scrubber system, chemical flue gas treatment system.

HNC Induced-draught fan system.
from incl. induced-draught fan system inlet
to incl. induced-draught fan system outlet.

HNE Smoke stack system (chimney).
from incl. inlet.

HNF Flue gas recirculation system.
from excl. branch off main flue gas exhaust system
to excl. inlet to other system, incl. fan system.

HNU Flue gas pressure relief system.
Task: controlled relief of pressure in flue gas exhaust system.

HNV Lubricant supply system.
HNW Sealing fluid supply system.
HNX Fluid supply system for control and protection equipment.
HNY Control and protection equipment.

HR Chemical flue gas treatment system incl.residues removal, adsorptive process.

HRA Flue gas ducting system within *HR*.
from excl. *HNA*,
to excl. inlet to *HNA*.

HRB Flue gas-side heat exchange.
from incl. inlet
to incl. outlet.

HRC Flue gas fan system.
from incl. inlet
to incl. outlet.

HRD Adsorber (reactor) plant.
from incl. inlet
to incl. outlet.

HRE Flue gas side cleaning equipment.
from excl. branch-off supply system.
HRH Residues separator.
from incl. inlet
to incl. outlet.
HRJ Fresh coke supply system incl. storage.
from excl. receiving point
to excl. fresh coke distribution or
to excl. fresh coke treatment.
HRK Fresh coke treatment and distribution.
from excl. fresh coke supply system
to excl. reactor.
HRL Water supply and disposal system.
HRM Coke removal system.
from excl. reactor
to excl. used coke transport or
to excl. used coke treatment.
HRN Used coke transport incl. storage.
from excl. used coke removal or
from excl. used coke treatment
to excl. inlet to disposal system.
HRP Used coke treatment and disposal.
from excl. used coke transport
to excl. used coke transport
to excl. delivery.
HRQ Dust exhaustion and disposal.
from incl. inlet
to incl. delivery.
HRR Inerting system. from incl. storage.
to excl. inlet to another system.
HRV Lubricant supply system.
HRW Sealing fluid supply system.
HRX Fluid supply system for control and protection equipment.
HRY Control and protection equipment.

HS Chemical flue gas treatment system incl. residues removal, catalytic process.

HSA Flue gas ducting system within *HS*.
from excl. *HNA*
to incl. evaporator system outlet and
to excl. inlet to *HNA*.
HSB Flue gas-side heat exchanger, gas heater (not *HU*).
from incl. inlet
to incl. outlet.
HSC Flue gas fan system.
from incl. inlet
to incl. outlet.
HSD Reactor (reduction).
from incl. inlet
to incl. outlet.
HSE Converter (oxidation).
from incl. inlet
to incl. outlet.
HSF Flue gas-side cleaning equipment for reactor.
from excl. branch off supply system.
HSG Reduction agent dilution system.
from excl. outlet of other system or
from incl. supply system
to excl. reduction agent treatment system.
HSH (Residues) separator.
from incl. inlet
to incl. outlet.
HSJ Reduction agent supply system incl. storage.
HSK Reduction agent treatment and distribution system.
from excl. reduction agent supply
to incl. reduction agent injection incl. coolant inlet.
HSL Water supply and disposal system.
HSM Chemicals and additives supply system.
HSN Drainage systems.
Task: water collecting, storage, return.
HSP Flyash collecting (incl. filtering) and removal system.
from incl. separator/filter or
from excl. flue gas ducting system
to excl. inlet to disposal system.
HSQ Sprinkler system incl. drainage.
from incl. inlet
to excl. inlet to other system.
HSR Oxidizing agent treatment and distribution system.
from excl. outlet converter
to excl. inlet converter.
HSS (Residues) forwarding, storage, loading system.
from excl. outlet residues separator.
HST Flushing fluid system incl. supply.
Task: flushing of reducing agent systems.
HSU Heating fluid system.
from excl. heating fluid supply
to excl. evaporator inlet
from excl. evaporator outlet
to excl. inlet to other system.
HSV Lubricant supply system.
HSW Sealing fluid supply system.
HSX Fluid supply system for control and protection equipment.

HSY Control and protection equipment.

HT Chemical flue gas treatment system incl. residues removal, absorptive process.

HTA Flue gas ducting system within *HT*.
from excl. *HNA*
to excl. inlet to *HNA*.

HTB Flue gas-side heat exchanger, gas heater (not *HU*).
from incl. inlet
to incl. outlet.

HTC Flue gas fan system.
from incl. inlet
to incl. outlet.

HTD Flue gas scrubbing system.
from incl. flue gas inlet
to incl. moisture separator outlet.

HTE Flue gas cleaning and filtering system.
Task: additional cleaning within *HT*;
not belonging to *HP*, *HQ* and *HR*".

HTF Absorption cycle.
from incl. inlet
to incl. outlet.

HTG Oxidation system incl. supply system.
to excl. user or scrubber.

HTJ Absorbent supply system incl. storage system.
to excl. mashing (*HTK*).

HTK Absorbent preparation and distribution system.
from incl. mashing, slaking
to excl. user or scrubber.

HTL Piping system for discharge of solids incl. water removal and return excl. thickening and solids dewatering systems.
incl. water removal and return excl. thickening and solids dewatering systems.

HTM Thickening and solids dewatering system.
from incl. inlet
to incl. outlet.

HTN Solids drying, compacting system.

HTP (Solids/ product) forwarding, storage, loading system.

HTQ Water supply and disposal system.

HTS Chemicals and additives supply system.

HTT Drainage systems.
Task: water collecting, storage, return.

HTV Lubricant supply system.

HTW Sealing fluid supply system.

HTX Fluid supply system for control and protection equipment.

HTY Control and protection equipment.

HU Flue gas reheating system.

HUA Flue gas reheating system.
(free for use).

HUB Flue gas reheating system.
(free for use).

HUC Flue gas reheating system.
(free for use).

HUD Flue gas reheating system.
(free for use).

HUE Flue gas reheating system.
(free for use).

HUF Flue gas reheating system.
(free for use).

HUG Flue gas reheating system.
(free for use).

HUH Flue gas reheating system.
(free for use).

HUJ Flue gas reheating system.
(free for use).

HUK Flue gas reheating system.
(free for use).

HUL Flue gas reheating system.
(free for use).

HUM Flue gas reheating system.
(free for use).

HUN Flue gas reheating system.
(free for use).

HUP Flue gas reheating system.
(free for use).

HUQ Flue gas reheating system.
(free for use).

HUR Flue gas reheating system.
(free for use).

HUS Flue gas reheating system.
(free for use).

HUT Flue gas reheating system.
(free for use).

HUU Flue gas reheating system.
(free for use).

HUV Lubricant supply system.

HUW Sealing fluid supply system.

HUX Fluid supply system for control and protection equipment.

HUY Control and protection equipment.

HV Lubricant supply system.

HVA Lubricant supply system.
(free for use).
HVB Lubricant supply system.
(free for use).
HVC Lubricant supply system.
(free for use).
HVD Lubricant supply system.
(free for use).
HVE Lubricant supply system.
(free for use).
HVF Lubricant supply system.
(free for use).
HVG Lubricant supply system.
(free for use).
HVH Lubricant supply system.
(free for use).
HVJ Lubricant supply system.
(free for use).
HVK Lubricant supply system.
(free for use).
HVL Lubricant supply system.
(free for use).
HVM Lubricant supply system.
(free for use).
HVN Lubricant supply system.
(free for use).
HVP Lubricant supply system.
(free for use).
HVQ Lubricant supply system.
(free for use).
HVR Lubricant supply system.
(free for use).
HVS Lubricant supply system.
(free for use).
HVT Lubricant supply system.
(free for use).
HVU Lubricant supply system.
(free for use).

HW Sealing fluid supply system.

HWA Sealing fluid supply system.
(free for use).
HWB Sealing fluid supply system.
(free for use).
HWC Sealing fluid supply system.
(free for use).
HWD Sealing fluid supply system.
(free for use).
HWE Sealing fluid supply system.
(free for use).
HWF Sealing fluid supply system.
(free for use).
HWG Sealing fluid supply system.
(free for use).
HWH Sealing fluid supply system.
(free for use).
HWJ Sealing fluid supply system.
(free for use).
HWK Sealing fluid supply system.
(free for use).
HWL Sealing fluid supply system.
(free for use).
HWM Sealing fluid supply system.
(free for use).
HWN Sealing fluid supply system.
(free for use).
HWP Sealing fluid supply system.
(free for use).
HWQ Sealing fluid supply system.
(free for use).
HWR Sealing fluid supply system.
(free for use).
HWS Sealing fluid supply system.
(free for use).
HWT Sealing fluid supply system.
(free for use).
HWU Sealing fluid supply system.
(free for use).

HX Fluid supply system for control and protection equipment.

HXA Fluid supply system for control and protection equipment.
(free for use).
HXB Fluid supply system for control and protection equipment.
(free for use).
HXC Fluid supply system for control and protection equipment.
(free for use).
HXD Fluid supply system for control and protection equipment.
(free for use).

HY Control and protection equipment.

HYA Control and protection equipment.
(free for use).
HYB Control and protection equipment.
(free for use).
HYC Control and protection equipment.
(free for use).
HYD Control and protection equipment.
(free for use).
HYE Control and protection equipment.
(free for use).

HYF Control and protection equipment.
(free for use).
HYG Control and protection equipment.
(free for use).
HYH Control and protection equipment.
(free for use).
HYJ Control and protection equipment.
(free for use).
HYK Control and protection equipment.
(free for use).
HYL Control and protection equipment.
(free for use).
HYM Control and protection equipment.
(free for use).
HYN Control and protection equipment.
(free for use).
HYP Control and protection equipment.
(free for use).
HYQ Control and protection equipment.
(free for use).
HYR Control and protection equipment.
(free for use).
HYS Control and protection equipment.
Dummies for El. consumer No.91-99
eg. HYS91 GH001.
HYT Control and protection equipment.
(free for use).
HYU Control and protection equipment.
(free for use).

L

STEAM-WATER CYCLE

LA Feedwater system.

LB Steam system.

LC Condensate system.

LD Condensate polishing plant.

LF Common installations for steam-water cycle.

LK Gas system (closed cycle).

LL Gas cleaning system (only for closed cycle).

LN Water impounding works for hydroelectric power plant.

LP Intake system, upperwater system for hydroelectric power plant.

LQ Tail-race system, underwater system for hydroelectric power plant.

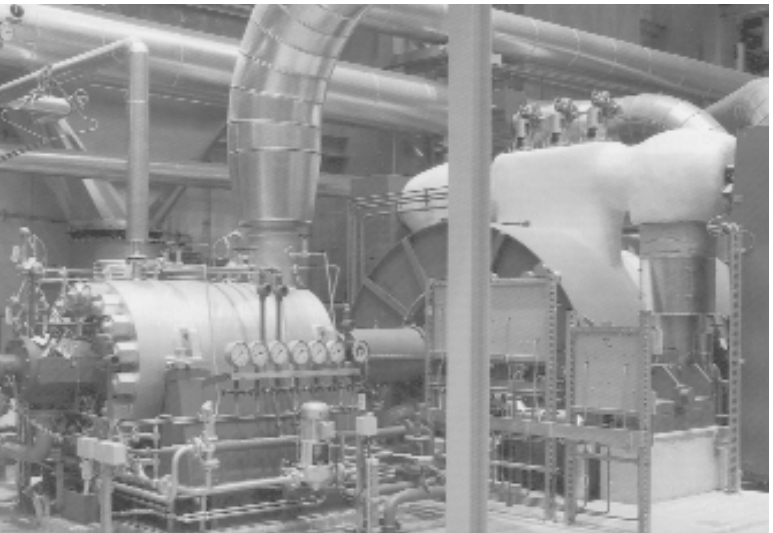
LS Common installations for hydroelectric power plant.

LV Lubricant supply system.

LW Sealing fluid supply system for steam, water, gas cycles.

LX Fluid supply system for control and protection equipment.

LY Control and protection equipment.



LA Feedwater system.

LAA Storage, deaeration (incl. feedwater tank).
from incl. deaerator or tank inlet
to incl. tank outlet incl. warm-up equipment and vapour condenser.

LAB Feedwater piping system (excl. feedwater pump and feedwater heating system).
from excl. feedwater tank outlet
to excl. boiler inlet header or heat exchanger.
Low pressure: LAB01 - 19
Intermediate pressure: LAB20 - 49
High pressure: LAB50 - 99.

LAC Feedwater pump system.
from incl. pump system suction nozzles
to incl. pump system discharge nozzles.
Low pressure: LAC01 - 19
Intermediate pressure: LAC20 - 49
High pressure: LAC50 - 99.

LAD HP feed water heating system.
from incl. respective feed heater inlet
to incl. respective feed heater outlet
incl. de-superheater and cooler.

LAE HP desuperheating spray system.
from excl. branch off feedwater piping system
to excl. user.

LAF IP desuperheating spray system.
from excl. pump system discharge nozzle
or
from excl. branch off other systen
to excl. user.

LAH Start-up and shutdown piping system.
from excl. outlet of or branch off feedwater system
to excl. feedwater piping system or other system.

LAJ Start-up and shutdown pump system.
from incl. pump system suction nozzle
to incl. pump system discharge nozzle.

LAR Emergency feed water piping system incl. storage (excl. emergency feed water pump system).
from excl. branch off another system
to excl. feed water piping system inlet.

LAS Emergency feed water pump system.
from incl. pump system suction nozzle
to incl. pump system discharge nozzle.

LAT Back-up emergency feed water system.
from excl. branch off another system
to excl. feed water piping system inlet.

LAV Lubricant supply system.

LAW Sealing fluid supply system.

LAX Fluid supply system for control and protection equipment.

LAY Control and protection equipment.

LB Steam system.

LBA Main steam piping system.
from excl. boiler outlet or
from excl. heat exchanger
to excl. turbine main stop valve or HP reducing station or turbine bypass or other user (system).
Low pressure: LBA01 - 19
Intermediate pressure: LBA20 - 49
High pressure: LBA50 - 99.

LBB Hot reheat piping system.
from excl. reheater or moisture separator/reheater outlet
to excl. intercept valve or turbine inlet or turbine bypass or other user (system).

LBC Cold reheat piping system.
from excl. turbine outlet or high pressure reducing station
to excl. reheater inlet excl. moisture separator or user (system).

LBD Extraction piping system.
from excl. branch off crossover line
to excl. user (system).

LBE Back-pressure piping system.
from excl. turbine outlet
to excl. user (system).

LBF Overpressure limitation and safety equipment incl. water injection and pressure meassuring device.
from excl. branch off *LAE*/*LAF*, *LBA*
to excl. inlet to *LBC*.

LBG Auxiliary steam piping system.
from excl. receiving point from other system
to excl. user (system).

LBH Start-up steam system, shutdown steam system.
from excl. boiler outlet or
from excl. branch off main steam line, incl. start-up condenser or
from excl. outlet of other system
to excl. inlet to other systems.
Low pressure: LBH01 - 19
Intermediate pressure: LBH20 - 49
High pressure: LBH50 - 99.

LBQ Extraction steam piping system for feed water heating.
from excl. turbine outlet or branch off other system
to excl. feed water heating system or user (system).

LBR Piping system for auxiliary (feed water pump) steam turbine.
from excl. branch off main steam turbine or
from excl. branch off other system
to excl. auxiliary (feed water pump) steam turbine isolating valve
from excl. auxiliary (feed water pump) steam turbine outlet
to excl. inlet to other system.

LBS Extraction steam piping system for main condensate heating.
from excl. turbine outlet or branch off other system
to excl. LP feedwater heating system or deaerator or user (system).

LBT Emergency condensing system.
from excl. steam generator outlet or
from excl. branch off main steam piping system incl. condenser
to excl. inlet to other system.

LBU Common dump line.
eg. Blow-out.

LBV Lubricant supply system.

LBW Sealing fluid supply system.

LBX Fluid supply system for control and protection equipment.

LBY Control and protection equipment.

LC Condensate system.

LCA Main condensate piping system (excl. main condensate pump system, LP feedwater heating system, condensate polishing plant).
from excl. condenser outlet
to excl. deaerator inlet or
to excl. feedwater pump system (in plants without feedwater tank).

LCB Main condensate pump system.
from incl. pump system suction nozzle
to incl. pump system discharge nozzle.

LCC Main condensate heating system.
from incl. heater inlet
to incl. heater outlet incl.desuperheater and cooler.

LCE Condensate desuperheating spray system.
from excl. branch off main condensate piping system or
from excl. branch off auxiliary steam turbine condensate piping system
to excl. user.

LCF Auxiliary (feed water pump) steam turbine condensate piping system.
from excl. (auxiliary) condenser outlet
to excl. inlet to other system
excl. auxiliary steam turbine condensate pump system.

LCG Auxiliary (feed water pump) steam turbine condensate pump system.
from incl. pump system suction nozzle
to incl. pump system discharge nozzle.

LCH HP heater drains system.
from excl. heater outlet
to excl. inlet to other systems.

LCJ LP heater drains system.
from excl. heater outlet
to excl. inlet to other systems.

LCL Steam generator drain system.
from excl. branch off pressure system or
from incl. start-up flash tank
to excl. inlet to other systems.

LCM Clean drains system (collecting and return system).
from incl. collecting tank or
from excl. final drain valve or
from excl. inlet from other collecting system
to excl. inlet to other systems.

LCN Auxiliary steam condensate system (collecting and return system).
from excl. (steam) user
to excl. inlet to other systems.

LCP Standby condensate system, incl. storage and pump system.
from excl. branch off other system
to excl. inlet to other systems.

LCQ Steam generator blowdown system.
from excl. steam generator outlet
from incl. blowdown flash tank (caustic flash tank)
to excl. inlet to other systems

LCR Standby condensate distribution system.
from excl. branch off other system
to excl. inlet to other systems.

LCV Lubricant supply system.

LCW Sealing and cooling condensate system.

from excl. branch off other system

to excl. user, incl. recirculation.

LCX Fluid supply system for control and protection equipment.

LCY Control and protection equipment.
Dummies for El. consumer No.91-99
eg.LCY91 GH001.

LD Condensate polishing plant.

LDA Fluid treatment extraction system (if not part of another system).
from excl. fluid treatment system outlet
to excl. inlet into other system.

LDB Filtering, mechanical cleaning.
from incl. separation equipment inlet
to incl. separation equipment outlet.

LDC Aeration, gas injection system.
from excl. atmosphere or
from incl. gas supply.

LDD Electromagnetic polishing system.
from incl. electromagnetic polishing system inlet
to incl. electromagnetic polishing system outlet.

LDE Acid proportioning system (e.g. for carbonate hardness removal).
from incl. acid proportioning equipment or
from excl. branch off chemicals supply system
to excl. inlet to other system.

LDF Ion exchange, reverse osmosis system (e.g. for demineralization).
from incl. ion exchanger inlet
to incl. ion exchanger outlet.

LDG Evaporation system (e.g. for demineralization).
from incl. feedwater inlet
to incl. steam outlet and
from incl. heating steam inlet
to incl. condensate outlet.

LDH Deaeration system.
from incl. deaerator or tank inlet
to incl. tank outlet. incl. warm-up equipment of vapour condenser.

LDJ Preheating, cooling system.
from incl. preheater or cooler inlet
to incl. preheater or cooler outlet.

LDK Piping system, temporary storage system, pump system for main fluid.
Piping system:
from excl. intake or
from excl. outlet of other system
to excl.inlet to other system
to incl. fluid treatment system outlet.
Temporary storage system:
from incl. temporary storage system inlet
to incl. temporary storage system outlet.
Pump System:
from incl. pump system suction nozzle
to incl. pump system discharge nozzle.

LDL Storage system outside fluid treatment system (if not part of another system).
from incl. storage system inlet
to incl. storage system outlet. incl. intake and outfall.

LDN Chemicals supply system.
from incl. intake or
from incl. storage tank
to excl. discharge into other system.

LDP Regeneration, flushing equipment.
from incl. system inlet
to excl. inlet to other system
from excl. chemicals or auxiliary fluid supply system and flushing air supply system
to incl. regeneration, flushing equipment.

LDQ Injection system for main fluid.
from incl. injection equipment or
from excl. branch off chemicals supply system
to excl. inlet to other system.

LDR Flushing water and residues removal system incl. neutralization.
from excl. outlet of respective system
to excl. discharge into disposal system.

LDS Sludge thickening system.
from excl. outlet of respective system
to excl. discharge into disposal system.

LDT Heating, cooling and flushing fluid distribution system.
from incl. heating, cooling, flushing fluid generation equipment or
from excl. branch off heating, cooling, flushing fluid supply system
to excl. user and
from excl. user.

LDV Lubricant supply system.

LDX Fluid supply system for control and protection equipment.
LDY Control and protection equipment.

LF Common installations for steam-water cycle.

LFC Common drain and vent systems.

LFJ Steam generator layup system.

LFN Proportioning system for feedwater, condensate system, incl. proportioning in boiler and turbine area.

LK Gas system (closed cycle).

LKA Storage system.
from excl. receiving point from gas supply system
to excl. piping system inlet.
LKB Piping system.
from excl. gas heater outlet
to excl. gas heater inlet, excl. turbine, compressor, preheater, cooler.
LKC Compressor system (if separate from gas turbine).
from incl. compressor inlet
to incl. compressor outlet.
LKD Preheating system.
from incl. preheater inlet
to incl. preheater outlet.
LKE Precooling system.
from incl. precooler inlet
to incl. precooler outlet.
LKF Intercooling system.
from incl. intercooler inlet
to incl. intercooler outlet.
LKG Pressurizing system.
from incl. pressurizing system inlet
to excl. discharge into piping systems.
LKV Lubricant supply system.
LKW Sealing fluid supply system.
LKX Fluid supply system for control and protection equipment.
LKY Control and protection equipment.

LL Gas cleaning system (only for closed cycle).

LLA Gas cleaning system (only for closed cycle).
(free for use).
LLB Gas cleaning system (only for closed cycle).
(free for use).
LLC Gas cleaning system (only for closed cycle).
(free for use).
LLD Gas cleaning system (only for closed cycle).
(free for use).
LLE Gas cleaning system (only for closed cycle).
(free for use).
LLF Gas cleaning system (only for closed cycle).
(free for use).
LLG Gas cleaning system (only for closed cycle).
(free for use).
LLH Gas cleaning system (only for closed cycle).
(free for use).
LLJ Gas cleaning system (only for closed cycle).
(free for use).
LLK Gas cleaning system (only for closed cycle).
(free for use).
LLL Gas cleaning system (only for closed cycle).
(free for use).
LLM Gas cleaning system (only for closed cycle).
(free for use).
LLN Gas cleaning system (only for closed cycle).
(free for use).
LLP Gas cleaning system (only for closed cycle).
(free for use).
LLQ Gas cleaning system (only for closed cycle).
(free for use).
LLR Gas cleaning system (only for closed cycle).
(free for use).
LLS Gas cleaning system (only for closed cycle).
(free for use).
LLT Gas cleaning system (only for closed cycle).
(free for use).
LLU Gas cleaning system (only for closed cycle).
(free for use).
LLW Sealing fluid supply system.
LLX Fluid supply system for control and protection equipment.
LLY Control and protection equipment.

LN Water impounding works for hydroelectric power plant.

LNA Head and tail race system, storage system.
from incl. water intake incl. transfer conduit and pump system
to excl. dam (incl.measuring equipment) or
to excl. headwater piping system or
to excl. headrace system.

LNB Trash rack, trash/fish barrier.
to excl. inlet
to other system

LNC Dam, weir system.
Dam:
from incl. foundation
to incl. crest, incl. inspection and instrumentation & equipment
Weir system:
from incl. inlet
to incl. outlet to other system.

LND Spillway.

LNE Drainage system.

LNV Lubricant supply system.

LNW Sealing fluid supply system.

LNX Fluid supply system for control and protection equipment.

LNY Control and protection equipment.

LP Intake system, upperwater system for hydroelectric power plant.

LPA Rake and rake cleaning system.
Task: Separate and collect floating matter from headrake.

LPB Isolating equipment.
from incl. isolating equipment inlet
to incl. outlet to other system.

LPC Piping and penstock system.
from incl. receiving point
to incl. discharge into turbine system, incl. connecting piping for pump system.

LPE Surge tank.

LPV Lubricant supply system.

LPW Sealing fluid supply system.

LPX Fluid supply system for control and protection equipment.

LPY Control and protection equipment.

LQ Tail-race system, underwater system for hydroelectric power plant.

LQA Underwater piping and culvert system.
from excl. main machine set *ME*, *MF*, *MG* inlet
to incl. outlet to other system.

LQB Surge tank.

LQC Isolating equipment.
from incl. isolating equipment inlet
to incl. outlet to other system.

LQE Rake and rake cleaning system for pumped-storage operation.
Task: Separate out and collect floating matter from tailrace

LQV Lubricant supply system.

LQW Sealing fluid supply system.

LQX Fluid supply system for control and protection equipment.

LQY Control and protection equipment.

LS Common installations for hydroelectric power plant.

LSA Common installations for hydroelectric power plant.
(free for use).

LSB Common installations for hydroelectric power plant.
(free for use).

LSC Common installations for hydroelectric power plant.
(free for use).

LSD Common installations for hydroelectric power plant.
(free for use).

LSE Common installations for hydroelectric power plant.
(free for use).

LSF Common installations for hydroelectric power plant.
(free for use).

LSG Common installations for hydroelectric power plant.
(free for use).

LSH Common installations for hydroelectric power plant.
(free for use).

LSJ Common installations for hydroelectric power plant.
(free for use).

LSK Common installations for hydroelectric power plant.
(free for use).

LSL Drainage system.

LSM Common installations for hydroelectric power plant.
(free for use).

LSN **Common installations for hydroelectric power plant.**
(free for use).
LSP **Common installations for hydroelectric power plant.**
(free for use).
LSQ **Common installations for hydroelectric power plant.**
(free for use).
LSR **Common installations for hydroelectric power plant.**
(free for use).
LSS **Common installations for hydroelectric power plant.**
(free for use).
LST **Common installations for hydroelectric power plant.**
(free for use).
LSU **Common installations for hydroelectric power plant.**
(free for use).

LV **Lubricant supply system.**

LVA **Lubricant supply system.**
(free for use).
LVB **Lubricant supply system.**
(free for use).
LVC **Lubricant supply system.**
(free for use).
LVD **Lubricant supply system.**
(free for use).
LVE **Lubricant supply system.**
(free for use).
LVF **Lubricant supply system.**
(free for use).
LVG **Lubricant supply system.**
(free for use).
LVH **Lubricant supply system.**
(free for use).
LVJ **Lubricant supply system.**
(free for use).
LVK **Lubricant supply system.**
(free for use).
LVL **Lubricant supply system.**
(free for use).
LVM **Lubricant supply system.**
(free for use).
LVN **Lubricant supply system.**
(free for use).
LVP **Lubricant supply system.**
(free for use).
LVQ **Lubricant supply system.**
(free for use).
LVR **Lubricant supply system.**
(free for use).
LVS **Lubricant supply system.**
(free for use).
LVT **Lubricant supply system.**
(free for use).
LVU **Lubricant supply system.**
(free for use).

LW **Sealing fluid supply system for steam, water, gas cycles.**

LWA **Sealing fluid supply system for steam, water, gas cycles.**
LWB **Sealing fluid supply system for steam, water, gas cycles.**
LWC **Sealing fluid supply system for steam, water, gas cycles.**
LWD **Sealing fluid supply system for steam, water, gas cycles.**
LWE **Sealing fluid supply system for steam, water, gas cycles.**
LWF **Sealing fluid supply system for steam, water, gas cycles.**
LWG **Sealing fluid supply system for steam, water, gas cycles.**
LWH **Sealing fluid supply system for steam, water, gas cycles.**
LWJ **Sealing fluid supply system for steam, water, gas cycles.**
LWK **Sealing fluid supply system for steam, water, gas cycles.**
LWL **Sealing fluid supply system for steam, water, gas cycles.**
LWM **Sealing fluid supply system for steam, water, gas cycles.**
LWN **Sealing fluid supply system for steam, water, gas cycles.**
LWP **Sealing fluid supply system for steam, water, gas cycles.**
LWQ **Sealing fluid supply system for steam, water, gas cycles.**
LWR **Sealing fluid supply system for steam, water, gas cycles.**
LWS **Sealing fluid supply system for steam, water, gas cycles.**
LWT **Sealing fluid supply system for steam, water, gas cycles.**
LWU **Sealing fluid supply system for steam, water, gas cycles.**

LX **Fluid supply system for control and protection equipment.**

LXA **Fluid supply system for control and protection equipment.**
(free for use).

LXB **Fluid supply system for control and protection equipment.**
(free for use).

LXC **Fluid supply system for control and protection equipment.**
(free for use).

LXD **Fluid supply system for control and protection equipment.**
(free for use).

LXE **Fluid supply system for control and protection equipment.**
(free for use).

LXF **Fluid supply system for control and protection equipment.**
(free for use).

LXG **Fluid supply system for control and protection equipment.**
(free for use).

LXH **Fluid supply system for control and protection equipment.**
(free for use).

LXJ **Fluid supply system for control and protection equipment.**
(free for use).

LXK **Fluid supply system for control and protection equipment.**
(free for use).

LXL **Fluid supply system for control and protection equipment.**
(free for use).

LXM **Fluid supply system for control and protection equipment.**
(free for use).

LXN **Fluid supply system for control and protection equipment.**
(free for use).

LXP **Fluid supply system for control and protection equipment.**
(free for use).

LXQ **Fluid supply system for control and protection equipment.**
(free for use).

LXR **Fluid supply system for control and protection equipment.**
(free for use).

LXS **Fluid supply system for control and protection equipment.**
(free for use).

LXT **Fluid supply system for control and protection equipment.**
(free for use).

LXU **Fluid supply system for control and protection equipment.**
(free for use).

LY **Control and protection equipment.**

LYA **Control and protection equipment.**
(free for use).

LYB **Control and protection equipment.**
(free for use).

LYC **Control and protection equipment.**
(free for use).

LYD **Control and protection equipment.**
(free for use).

LYE **Control and protection equipment.**
(free for use).

LYF **Control and protection equipment.**
(free for use).

LYG **Control and protection equipment.**
(free for use).

LYH **Control and protection equipment.**
(free for use).

LYJ **Control and protection equipment.**
(free for use).

LYK **Control and protection equipment.**
(free for use).

LYL **Control and protection equipment.**
(free for use).

LYM **Control and protection equipment.**
(free for use).

LYN **Control and protection equipment.**
(free for use).

LYP **Control and protection equipment.**
(free for use).

LYQ **Control and protection equipment.**
(free for use).

LYR **Control and protection equipment.**
(free for use).

LYS **Control and protection equipment.**
(free for use).

LYT **Control and protection equipment.**
(free for use).

LYU **Control and protection equipment.**
(free for use).

M

MAIN MACHINE SETS

MA Steam turbine plant.

MB Gas turbine plant.

ME Hydraulic turbine plant.

MF Pumping turbine plant in pumped-storage power plants.

MG Pumped-storage plant.

MJ Diesel engine plant.

MK Generator plant.

ML Electro-motive plant (incl. motor generator).

MM Compressor plant.

MP Common installations for main machine sets.

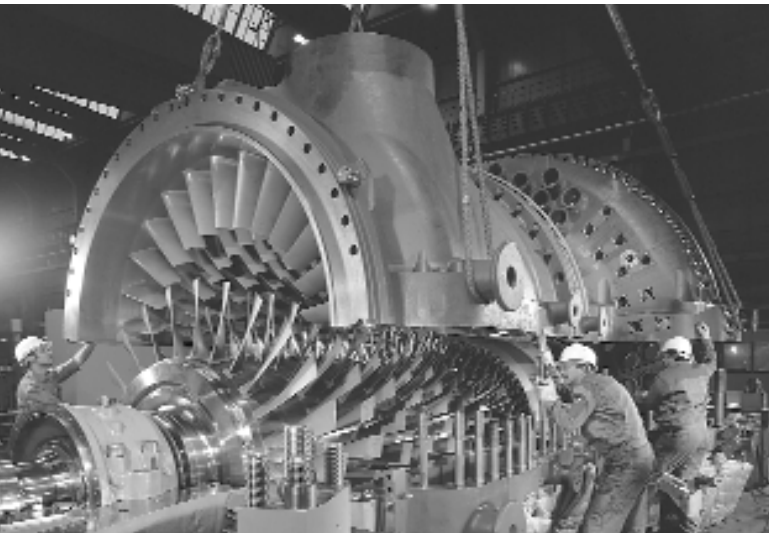
MR Gas engine plant.

MV Lubricant supply system.

MW Sealing fluid supply system.

MX Fluid supply system for control and protection equipment.

MY Control and protection equipment.



MA Steam turbine plant.

MAA HP turbine.
from incl. steam admission (main stop valve) or combined main stop and control valve
to incl. automatic/non-automatic extraction and exhaust nozzles and
to incl. the interfaces with other turbine-internal systems.

MAB IP turbine.
from incl. crossover line, incl. control element or
from incl. intercept valve
to incl. automatic/non-automatic extraction and exhaust nozzles and
to incl. the interfaces with other turbine-internal systems.

MAC LP turbine.
from incl. crossover line, incl. control element or
from incl. intercept valve or steam inlet nozzle (in reheat system without intercept valves).
to incl. automatic/non-automatic extraction and exhaust nozzles and
to incl. the interfaces with other turbine-internal systems.

MAD Bearings.

MAG Condensing system.
from incl. condenser neck or inlet nozzle
to incl. condenser outlet nozzle, incl. connected flash tanks, incl. instrumentation equipment associated with condenser.

MAH Motive water system (if separate from *MAJ*).
from excl. outlet of other system
to excl. water-operated air ejector inlet.

MAJ Air removal system.
from excl. condenser outlet
to excl. inlet atmosphere.

MAK Transmission gear between prime mover and driven machine, incl. turning gear.

MAL Drain and vent systems.
from incl. collector point or
from incl. final drain
to excl. discharge into other system.

MAN Turbine bypass station, incl. desuperheating spray system.
from incl. bypass valve and
from incl. desuperheating spray valve
to incl. steam inlet to condenser.
Low pressure: MAN01 - 19
Intermediate pressure: MAN20 - 49
High pressure: MAN50 - 99.

MAV Lubricant supply system.
from incl. dedicated lubricant tank or common lubricant and control fluid tank or
from excl. branch off lubricant supply system
to excl. user and
from excl. user.

MAW Sealing, heating and cooling steam system.
from excl. branch
to excl. casing nozzle of seal steam user and leak-off
to excl. condenser or
to incl. gland steam condenser or
to excl. heating/cooling steam user.

MAX Non-electric control and protection equipment, incl. fluid supply system.

MAY Electrical control and protection equipment.

MB Gas turbine plant.

MBA Turbine, compressor rotor with common casing.
from incl. compressor inlet
to incl. compressor outlet
from incl. turbine inlet
to incl. turbine outlet, incl. exhaust gas diffuser.

MBB Turbine casing and rotor.
from incl. turbine inlet
to incl. turbine outlet, incl. exhaust gas diffuser.

MBC Compressor casing and rotor.
from incl. compressor inlet
to incl. compressor outlet.

MBD Bearings.

MBE Cooling medium system.
from excl. branch-off cooling medium supply
to excl. user and incl. pump system, control equipment, recirculation.

MBH Cooling and sealing gas system.
from incl. extraction point
to excl. user and
from excl. user, incl. leak-off
to incl. inlet to other system.

MBJ Start-up unit.

MBK Transmission gear between prime mover and driven machine, incl. turning gear, barring gear.

MBL Intake air, cold gas system (open cycle).
from excl. atmosphere,
to excl. combustion chamber or
to excl. compressor inlet or
to incl. exhaust gas heat exchanger, excl. compressor.

MBM Combustion chamber (gas heating, combustion).
from incl. cold gas, fuel inlet
to incl. hot gas outlet.

MBN Fuel supply system (liquid).
from excl. branch off main supply line or
from incl. temporary (day) tank
to excl. combustion chamber or
to excl. motive gas generating unit, incl. fuel return system.

MBP Fuel supply system (gaseous).
from excl. branch off main supply line
to excl. combustion chamber or
to excl. motive gas generating unit.

MBQ Ignition fuel supply system (if separate).
from excl. branch off main supply line or
from incl. storage tank to excl. combustion chamber or
to excl. motive gas generating unit.

MBR Exhaust gas system (open cycle).
from excl. combustion chamber or
from excl. exhaust gas diffuser
to excl. discharge into atmosphere, excl. turbine or
to excl. inlet to other system
(e.g. combustion air system).

MBS Storage system.
to excl. connection to main system and
from excl. connection to main system.

MBT Motive gas generator unit, incl. combustion chamber.
from incl. air/fuel inlet
to incl. motive gas outlet of motive gas generating unit.

MBU Additive system.
from incl. supply
to incl. injection.

MBV Lubricant supply system.
from incl. dedicated lubricant tank or
common lubricant and control fluid tank or
from excl. branch off control fluid supply system
to excl. user and
from excl. user.

MBW Sealing oil supply system.
from incl. dedicated seal oil tank or
from excl. seal oil pump suction line
to excl. user and
from excl. user.

MBX Non-electric control and protection equipment, incl. fluid supply system.

MBY Electrical control and protection equipment.

MBZ Lubricant and control fluid treatment system.

ME Hydraulic turbine plant.

MEA Turbine (casing, shaft, runner etc.).
from excl. turbine inlet or
from excl. isolating valve
to incl. turbine outlet or
to excl. isolating valve, incl. draft tube.

MEB Isolating valve.
from incl. isolating valve inlet
to incl. isolating valve outlet.

MED Bearings.

MEG Stabilizing air system.
from incl. air compressor
to incl. outlet to turbine

MEK Transmission gear between prime mover and driven machine.

MEL Water depression air supply system.
from incl. air compressor
to incl. outlet to turbine

MES Shaft gland cooling water system.

MEV Lubricant supply system.
from incl. lubricant tank
to excl. user and
from excl. user.

MEW Sealing water supply system.
from incl. sealing water supply main isolating valve
to excl. casing nozzle of sealing water user.

MEX Non-electric control and protection equipment, incl. fluid supply system.

MEY Electrical control and protection equipment.

MF Pumping turbine plant in pumped-storage power plants.

MFA Pumping turbine, pump and turbine as a constructive unit.
Task: A constructive unit which on different times serves as a prime mover (turbine) or as a driven machine (pump).
from excl. pump, pumping turbine inlet or
from excl. isolating valve
to incl. pump, pumping turbine outlet or
to excl. isolating valve.

MFB Isolating valve.
from incl. isolating valve inlet
to incl. isolating valve outlet.

MFD Bearings.

MFG Stabilizing air system.
from incl. air compressor
to incl. inlet to turbine.

MFK Transmission gear between motor generator and pumping turbine.

MFL Compressed air supply system.
from incl. air compressor
to incl. inlet to pumping turbine, singleshaft pump and turbine unit.

MFM Start-up unit.

MFS Shaft gland cooling water system.

MFV Lubricant supply system.
from incl. lubricant tank
to excl. user and
from excl. user.

MFW Sealing water supply system.
from incl. sealing water supply main isolating valve
to excl. casing nozzle of sealing water user.

MFX Non-electric control and protection equipment, incl. fluid supply system.

MFY Electrical control and protection equipment.

MG Pumped-storage plant.

MGA Storage pump (casing, shaft, runner etc.).
from excl. storage pump inlet or
from excl. isolating valve
to incl. storage pump outlet or
to excl. isolating valve.

MGB Isolating valve.
from incl. isolating valve inlet
to incl. isolating valve outlet.

MGD Bearings.

MGK Transmission gear between motor generator and pumping turbine.

MGL Water depression air supply system.
from incl. air compressor
to incl. inlet to storage pump.

MGM Start-up unit.

MGR locked.

MGS Shaft gland cooling water system.

MGV Lubricant supply system.
from incl. lubricant tank
to excl. user and
from excl. user.

MGW Sealing water supply system.
from incl. sealing water supply main isolating valve
to excl. casing nozzle of sealing water user.

MGX Non-electric control and protection equipment, incl. fluid supply system.

MGY Electrical control and protection equipment.

MJ Diesel engine plant.

MJA Engine.
from incl. fuel injection nozzle inlet or
from incl. air intake nozzles or
from incl. cooling water inlet nozzles
to incl. exhaust nozzle outlet or
to incl. cooling water nozzle outlet, incl. engine- internal systems.

MJB Turbocharger, blower.
from incl. turbocharger or blower inlet
to incl. turbocharger or blower outlet.

MJG Liquid cooling system.
from excl. engine cooling water nozzle outlet or
from incl. turbocharger air cooling system inlet
to excl. engine cooling water nozzle inlet or
to incl. turbocharger air cooler outlet.

MJH Air intercooling system.
from incl. intercooler inlet
to incl. intercooler outlet
to excl. outlet to other cooling systems.

MJK Transmission gear between prime mover and driven machine.

MJN Fuel systems.
from incl. temporary (day) tank or
from excl. branch off piping system
to excl. fuel injection nozzle inlet.

MJP Start-up unit (incl. flywheel).

MJQ Air intake system.
from excl. atmosphere
to excl. turbocharger or
to excl. engine air intake nozzles.

MJR Exhaust gas system.
from excl. engine exhaust nozzle outlet
to excl. discharge into atmosphere.

MJV Lubricant supply system.
from incl. dedicated lubricant tank or common lubricant and control fluid tank or
from excl. branch off control fluid supply system
to excl. user from excl. user.

MJW Sealing fluid supply system.

MJX Fluid supply system for control and protection equipment.

MJY Control and protection equipment.

MK Generator plant.

MKA Generator, complete, incl. stator, rotor and all integral cooling equipment.
to incl. generator bushing.

MKB Generator exciter set, including set with electrical braking system.
(use only if *MKC* is not sufficient for identification).

MKC Exciter set.

MKD Bearings.

MKF Stator/rotor liquid cooling system, incl. coolant supply system (for cooling oil see *MKU*).
Task: dissipate heat produced by stator/rotor to coolant
from excl. stator/rotor outlet
to excl. stator/rotor inlet.

MKG Stator/rotor gas cooling system. incl. coolant supply system (Note: for nitrogen cooling see *MKH*).
Task: dissipate heat produced by stator/rotor to coolant
from excl. stator/rotor outlet
to excl. stator/rotor inlet.

MKH Stator/rotor nitrogen cooling system, incl. coolant supply system (Note: for other gas cooling see *MKG*).
Task: dissipate heat produced by stator/rotor to coolant
from excl. stator/rotor outlet
to excl. stator/rotor inlet.

MKP Secondary cooling water system.
from excl. cooling water system (*PC*, *PG*)
to excl. users incl. blowdown, discharge, venting
from excl. users
to excl. inlet into other system.

MKQ Exhaust gas system (if separate from *MKG* and *MKH*).

MKU Stator/rotor cooling oil cooling system, incl. coolant supply system (Note: for other liquid cooling see *MKF*).
Task: dissipate heat produced by stator/rotor to coolant
from excl. stator/rotor outlet
to excl. stator/rotor inlet.

MKV Lubricant supply system (if separate system for generator).

MKW Sealing fluid supply system (Sealing oil system incl. supply and treatment).
from excl. branch off sealing oil supply system
to excl. stator inlet and
from excl. stator outlet
to excl. inlet to other system or in closed systems
from excl. stator outlet
to excl. stator inlet.

MKX Fluid supply system for control and protection equipment.

MKY Control and protection equipment.

ML Electro-motive plant (incl. motor generator).

MLA Motor frame, motor generator frame, incl. stator, rotor and all integral cooling equipment.
to incl. motor or generator bushing.

MLC Exciter set.

MLD Bearings.

MLF Stator/rotor liquid cooling system, incl. coolant supply system (Note: fro cooling oil see *MLU*).
Task: dissipate heat produced by stator/rotor to coolant
from excl. stator/rotor outlet
to excl. stator/rotor inlet.

MLG Stator/rotor gas cooling system, incl. coolant supply system(Note: for nitrogen cooling see *MLH*).
Task: dissipate heat produced by stator/rotor to coolant
from excl. stator/rotor outlet
to excl. stator/rotor inlet.

MLH Stator/rotor nitrogen cooling system, incl. coolant supply system (Note: for other gas cooling see *MLG*).
Task: dissipate heat produced by stator/rotor to coolant
from excl. stator/rotor outlet
to excl. stator/rotor inlet.

MLQ Exhaust gas system (if separate from *MLG* and *MLH*).

MLU Stator/rotor cooling oil cooling system, incl. coolant supply system (Note: for other liquid cooling see *MLF).
Task: dissipate heat produced by stator/rotor to coolant
from excl. stator/rotor outlet
to excl. stator/rotor inlet.

MLV Lubricant supply system (if separate system for electro-motive units).

MLW Sealing fluid supply system (Sealing oil system, incl. supply and treatment).
from excl. branch off sealing oil supply system
to excl. stator inlet or
from excl. stator outlet
to excl. inlet to other system or in closed systems
from excl. stator outlet
to excl. stator inlet.

MLX Fluid supply system for control and protection equipment.

MLY Control and protection equipment.

MM Compressor plant.

MMA Compressor incl. internal systems.
from incl. air, cooling fluid inlet
to incl. air, cooling fluid outlet.

MMC Air intake piping system.
from excl. atmosphere
to excl. compressor inlet.

MMD Bearings.

MME Intercooling system.

MMF Aftercooling system.

MMG Final cooling system.

MMH Discharge piping system.
from excl. compressor outlet
to excl. inlet to other system.

MMV Lubricant supply system.

MMW Sealing fluid supply system.

MMX Fluid supply system for control and protection equipment.

MMY Control and protection equipment.

MP Common installations for main machine sets.

MPA Foundation.

MPB Sheating.

MPG Frame, support structure.

MPR Forced cooling system.

MPS Drying and layup system.

MR Gas engine plant.

MRA Gas engine plant.
(free for use).

MRB Gas engine plant.
(free for use).

MRC Gas engine plant.
(free for use).

MRD Gas engine plant.
(free for use).

MRE Gas engine plant.
(free for use).

MRF Gas engine plant.
(free for use).

MRG Gas engine plant.
(free for use).

MRH Gas engine plant.
(free for use).

MRJ Gas engine plant.
(free for use).

MRK Gas engine plant.
(free for use).

MRL Gas engine plant.
(free for use).

MRM Gas engine plant.
(free for use).

MRN Gas engine plant.
(free for use).

MRP Gas engine plant.
(free for use).

MRQ Gas engine plant.
(free for use).

MRR Gas engine plant.
(free for use).

MRS Gas engine plant.
(free for use).

MRT Gas engine plant.
(free for use).
MRU Gas engine plant.
(free for use).
MRV Lubricant supply system.
MRW Sealing fluid supply system.
MRX Fluid supply system for control and protection equipment.
MRY Control and protection equipment.

MV Lubricant supply system.

MVC Lubricant supply system.
(free for use).

MW Sealing fluid supply system.

MWA Sealing fluid supply system.
(free for use).
MWB Sealing fluid supply system.
(free for use).
MWC Sealing fluid supply system.
(free for use).
MWD Sealing fluid supply system.
(free for use).
MWE Sealing fluid supply system.
(free for use).
MWF Sealing fluid supply system.
(free for use).
MWG Sealing fluid supply system.
(free for use).
MWH Sealing fluid supply system.
(free for use).
MWJ Sealing fluid supply system.
(free for use).
MWK Sealing fluid supply system.
(free for use).
MWL Sealing fluid supply system.
(free for use).
MWM Sealing fluid supply system.
(free for use).
MWN Sealing fluid supply system.
(free for use).
MWP Sealing fluid supply system.
(free for use).
MWQ Sealing fluid supply system.
(free for use).
MWR Sealing fluid supply system.
(free for use).
MWS Sealing fluid supply system.
(free for use).
MWT Sealing fluid supply system.
(free for use).
MWU Sealing fluid supply system.
(free for use).

MX Fluid supply system for control and protection equipment.

MXA Fluid supply system for control and protection equipment.
(free for use).
MXB Fluid supply system for control and protection equipment.
(free for use).
MXC Fluid supply system for control and protection equipment.
(free for use).
MXD Fluid supply system for control and protection equipment.
(free for use).
MXE Fluid supply system for control and protection equipment.
(free for use).
MXF Fluid supply system for control and protection equipment.
(free for use).
MXG Fluid supply system for control and protection equipment.
(free for use).
MXH Fluid supply system for control and protection equipment.
(free for use).
MXJ Fluid supply system for control and protection equipment.
(free for use).
MXK Fluid supply system for control and protection equipment.
(free for use).
MXL Fluid supply system for control and protection equipment.
(free for use).
MXM Fluid supply system for control and protection equipment.
(free for use).
MXN Fluid supply system for control and protection equipment.
(free for use).
MXP Fluid supply system for control and protection equipment.
(free for use).
MXQ Fluid supply system for control and protection equipment.
(free for use).
MXR Fluid supply system for control and protection equipment.
(free for use).
MXS Fluid supply system for control and protection equipment.
(free for use).

MXT Fluid supply system for control and protection equipment.
(free for use).
MXU Fluid supply system for control and protection equipment.
(free for use).

MY Control and protection equipment.

MYA Control and protection equipment.
(free for use).
MYB Control and protection equipment.
(free for use).
MYC Control and protection equipment.
(free for use).
MYD Control and protection equipment.
(free for use).
MYE Control and protection equipment.
(free for use).
MYF Control and protection equipment.
(free for use).
MYG Control and protection equipment.
(free for use).
MYH Control and protection equipment.
(free for use).
MYJ Control and protection equipment.
(free for use).
MYK Control and protection equipment.
(free for use).
MYL Control and protection equipment.
(free for use).
MYM Control and protection equipment.
(free for use).
MYN Control and protection equipment.
(free for use).
MYP Control and protection equipment.
(free for use).
MYQ Control and protection equipment.
(free for use).
MYR Control and protection equipment.
(free for use).
MYS Control and protection equipment.
(free for use).
MYT Control and protection equipment.
(free for use).
MYU Control and protection equipment.
(free for use).
MYV Control and protection equipment.
(free for use).
MYW Control and protection equipment.
(free for use).
MYX Control and protection equipment.
(free for use).
MYY Control and protection equipment.
(free for use).

N

PROCESS ENERGY / MEDIA SUPPLY FOR EXTERNAL USERS (e.g. District Heating)

NA Process steam system (incl. condensate return).

ND Process hot water system.

NE Process chilled water.

NG Process air system.

NK Process gas system.

PROCESS ENERGY / MEDIA SUPPLY FOR EXTERNAL USERS

NA Process steam system (incl. condensate return).

- **NAA Piping system (steam).**
- **NAB Piping system (condensate).**
  incl. pumps
- **NAD Process heat transmission system.**
  from incl. heat exchanger inlet
  to incl. heat exchanger outlet.
- **NAE Piping system (steam) *NAE* to *NAJ* only to be used if *NAA* is not sufficient for identification.**
  (free for use e.g. to pressure level).
- **NAF Piping system (steam) *NAE* to *NAJ* only to be used if *NAA* is not sufficient for identification.**
  (free for use e.g. to pressure level).
- **NAG Piping system (steam) *NAE* to *NAJ* only to be used if *NAA* is not sufficient for identification.**
  (free for use e.g. to pressure level).
- **NAH Piping system (steam) *NAE* to *NAJ* only to be used if *NAA* is not sufficient for identification.**
  (free for use e.g. to pressure level).
- **NAJ Piping system (steam) *NAE* to *NAJ* only to be used if *NAA* is not sufficient for identification.**
  (free for use e.g. to pressure level).
- **NAK Piping system (condensate) *NAK* to *NAM* only to be used if *NAB* is not sufficient for identification.**
- **NAL Piping system (condensate) *NAK* to *NAM* only to be used if *NAB* is not sufficient for identification.**
  (free for use e.g. according to process).
- **NAM Piping system (condensate) *NAK* to *NAM* only to be used if *NAB* is not sufficient for identification.**
  (free for use e.g. according to process).
- **NAX Fluid supply system for control and protection equipment.**
- **NAY Control and protection equipment.**

ND Process hot water system.

- **NDA Piping system (forward).**
- **NDB Piping system (return).**
- **NDC Process hot water pump system.**
- **NDD Process heat transfer.**
  from incl. heat exchanger inlet
  to incl. heat exchanger outlet.
- **NDE Hot water storage system.**
  from incl. tank inlet
  to incl. tank outlet.
- **NDF Distribution systems.**
  (free for use e.g. for temperature levels).
- **NDG Distribution systems.**
  (free for use e.g. for temperature levels).
- **NDH Distribution systems.**
  (free for use e.g. for temperature levels).
- **NDJ Distribution systems.**
  (free for use e.g. for temperature levels).
- **NDK Pressurizing system.**
- **NDV Lubricant supply system.**
- **NDX Fluid supply system for control and protection equipment.**
- **NDY Control and protection equipment.**

NE Process chilled water.

NG Process air system.

- **NGB Piping system.**
- **NGC Forwarding system.**
- **NGW Sealing fluid supply system.**
- **NGX Fluid supply system for control and protection equipment.**
- **NGY Control and protection equipment.**

NK Process gas system.

- **NKB Piping system.**
- **NKW Sealing fluid supply system.**
- **NKX Fluid supply system for control and protection equipment.**
- **NKY Control and protection equipment.**

P

COOLING WATER SYSTEMS

PA Circulating (main cooling) water system.

PB Circulating (main cooling) water treatment system.

PC Service (secondary cooling) water system, conventional area.

PD Service (secondary cooling) water treatment system, conventional area.

PG Closed cooling water system.

PH Closed cooling water treatment system for conventional area.

PM Closed cooling water system for transformers (if separate from closed cooling water system).

PS Cooling tower blowdown system (if separate from *PAB*).

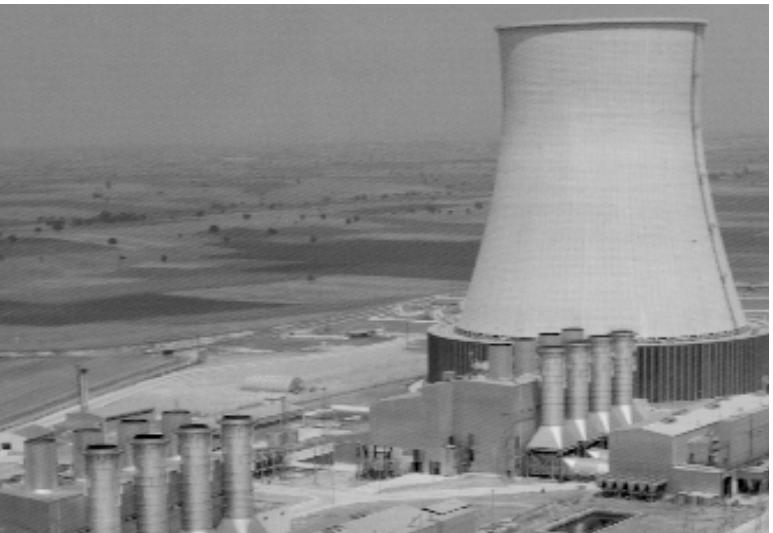
PU Common equipment for cooling water systems.

PV Lubricant supply system.

PW Sealing fluid supply system.

PX Fluid supply system for control and protection equipment.

PY Control and protection equipment.



PA Circulating (main cooling) water system.

PAA Extraction, mechanical cleaning for direct cooling.
from incl. intake system
to incl. mechanical cleaning system outlet.

PAB Circulating (main cooling) water piping and culvert system.
from excl. outlet of circulating (main cooling) water extraction system (excl. any user)
to incl. outfall in direct cooling system or
from excl. cooling tower outlet
to excl. cooling tower inlet in recirculation cooling system.

PAC Circulating (main cooling) water pump system.
from incl. pump system suction nozzle
to incl. pump system discharge nozzle.

PAD Recirculating cooling system, outfall cooling system.
from incl. hot water riser
to incl. basin outlet.

PAE Cooling tower pump system (if separate).

PAH Condenser tubes cleaning system, incl. all appurtenances.

PAR Make-up water piping system.
from excl. intake
to excl. inlet to other system.

PAS Make-up water pump system.
from incl. pump system suction nozzle
to incl. pump system discharge nozzle.

PAV Lubricant supply system.

PAX Fluid supply system for control and protection equipment.

PAY Control and protection equipment.

PB Circulating (main cooling) water treatment system.

PBA Discharge from fluid treatment system (if not part of another system).
from excl. fluid treatment system outlet
to excl. inlet to other system.

PBB Filtering, mechanical cleaning system.
from incl. separation equipment inlet
to incl. separation equipment outlet

PBC Aeration, gas injection system.
from excl. atmosphere or
from incl. gas supply

PBD Precipitation system (e.g. for carbonate hardness removal).
from incl. precipitation equipment inlet
to incl. precipitation equipment outlet

PBE Acid proportioning system (e.g. for carbonate hardness removal).
from incl. acid dosing equipment or
from excl. branch off chemicals supply system
to excl. inlet to other system

PBF Ion exchange system (e.g. for demineralization).
from incl. ion exchanger inlet and
from incl. isolating valve of chemicals supply system or auxiliary fluid supply system upstream of ion exchanger.

PBG Evaporation system (e.g. for demineralisation).
from incl. feedwater inlet
to incl. steam outlet and
from incl. heating steam inlet
to incl. condensate outlet.

PBH Deaeration system.
from incl. deaerator or tank inlet
to incl. tank outlet incl. warm-up equipment of vapour condenser.

PBJ Preheating, cooling system.
from incl. preheater or cooler inlet
to incl. preheater or cooler outlet.

PBK Piping system, temporary storage system, pump system for main fluid.
Piping system:
from excl. intake or
from excl. outlet of other system
to excl. inlet to other system
to incl. fluid treatment system outlet.
Temporary storage system:
from incl. temporary storage system inlet
to incl. temporary storage system outlet.
Pump system:
from incl. pump system suction nozzle
to incl. pump system discharge nozzle.

PBL Storage system outside fluid treatment system (if not part of another system).
from incl. storage system inlet
to incl. storage system outlet incl. intake and outfall.

PBN Chemicals supply system (eg. Electrochlorination system).
from incl. intake or
from incl. storage tank
to excl. discharge into other system.

PBP Regeneration, flushing equipment.
from incl. system inlet
to excl. inlet to other system
from excl. chemicals or auxiliary fluid supply system and flushing air supply system
to incl. regenerating, flushing equipment.

PBQ Injection system for main fluid (eg. Hypochlorite solution injection system).
from incl. injection equipment or
from excl. branch off chemicals supply system
to excl. inlet to other system.

PBR Flushing water and residues removal system, incl. neutralization.
from excl. outlet of respective system
to excl. discharge into other system.

PBS Sludge thickening system.
from excl. outlet of respective system
to excl. discharge into other system.

PBT Heating, cooling and flushing fluid distribution system.
from incl. heating, cooling, flushing fluid generation equipment or
from excl. branch off heating, cooling, flushing fluid supply system
to excl. user and
from excl. user.

PBV Lubricant supply system.

PBX Fluid supply system for control and protection equipment.

PBY Control and protection equipment.

PC Service (secondary cooling) water system, conventional area.

PCA Extraction, mechanical cleaning for direct cooling.
from incl. intake system
to incl. mechanical cleaning system outlet.

PCB Piping and culvert system.
from excl. outlet of service (secondary cooling) extraction system or
from excl. branch off circulating water system
to excl. inlet to other system, excl. respective user and
from excl. make-up water treatment and distribution system.

PCC Pump system.
from incl. pump system suction nozzle
to incl. pump system discharge nozzle.

PCD Recirculation cooling system, outfall cooling system.
from incl. hot water riser
to incl. basin outlet.

PCH Heat exchanger cleaning system.

PCM Service (secondary cooling) water system for generator, motor generator cooling.
from excl. branch off *PCB*
to excl. generator cooler and
from excl. generator cooler
to excl. inlet to *PCB* or other systems.

PCV Lubricant supply system.

PCX Fluid supply system for control and protection equipment.

PCY Control and protection equipment.

PD Service (secondary cooling) water treatment system, conventional area.

PDA Discharge from fluid treatment system (if not part of another system).
from excl. fluid treatment system outlet
to excl. inlet to other system.

PDB Filtering, mechanical cleaning system.
from incl. separation equipment inlet
to incl. separation equipment outlet.

PDC Aeration, gas injection system. from excl. atmosphere or from incl. gas supply.

PDD Precipitation system (e.g. for carbonate hardness removal).
from incl. precipitation equipment inlet
to incl. precipitation equipment outlet.

PDE Acid proportioning system (e.g. for carbonate hardness removal).
from incl. acid proportioning equipment or
from excl. branch off chemicals supply system
to excl. inlet to other system.

PDF Ion exchange system (e.g. for demineralization).
from incl. ion exchanger inlet and
to incl. isolating valve of chemicals supply system or auxiliary fluid supply system upstream of ion exchanger.

PDG Evaporation system (e.g. for demineralization).
from incl. feedwater inlet
to incl. steam outlet and
from incl. heating steam inlet
to incl. condensate outlet.

PDH Deaeration system.
from incl. deaerator or tank inlet
to incl. tank outlet incl. warm-up equipment of vapour condenser.

PDJ Preheating, cooling system.
from incl. preheater or cooler inlet
to incl. preheater or cooler outlet.

PDK Piping system, temporary storage system, pump system for main fluid.
Piping system:
from excl. intake or
from excl. outlet of other system
to excl. inlet to other system
to incl. fluid treatment system outlet.
Temporary storage system:
from incl. temporary storage system inlet
to incl. temporary storage system outlet.
Pump system:
from incl. pump system suction nozzle
to incl. pump system discharge nozzle.

PDL Storage system outside fluid treatment system (if not part of another system).
from incl. storage system inlet
to incl. storage system outlet incl. intake and outfall.

PDN Chemicals supply system.
from incl. intake or
from incl. storage tank
to excl. discharge into other system.

PDP Regeneration, flushing equipment.
from incl. system inlet
to excl. inlet to other system
from excl. chemicals or auxiliary fluid supply system and flushing air supply system
to incl. regenerating, flushing equipment.

PDQ Injection system for main fluid.
from incl. injection equipment or
from excl. branch off chemicals supply system
to excl. inlet to other system.

PDR Flushing water and residues removal system, incl. neutralization.
from excl. outlet of respective system
to excl. discharge into disposal system.

PDS Sludge thickening system.
from excl. outlet of respective system
to excl. discharge into other system.

PDT Heating, cooling and flushing fluid distribution system.
from incl. heating, cooling, flushing fluid generation equipment or
from excl. branch off heating, cooling, flushing fluid supply system
to excl. user and
from excl. user.

PDV Lubricant supply system.

PDX Fluid supply system for control and protection equipment.

PDY Control and protection equipment.

PG Closed cooling water system.

PGA Closed cooling water piping system (forward).
from excl. discharge nozzle of closed cooling water pump system
to excl. user, incl. blowdown, discharge, venting
to excl. inlet into other system excl. intercooler (see *PGD*).

PGB Closed cooling water piping system (return).
from excl. outlet user
to excl. closed cooling water pump system suction nozzles incl. blowdown, discharge, venting
to excl. inlet to other system.

PGC Closed cooling water pump system.
from incl. pump system suction nozzles
to incl. pump system discharge nozzles
incl. discharge, flushing, venting
to excl. inlet into other system.

PGD Intercooler.
from incl. intercooler inlet nozzle
to incl. intercooler discharge nozzle, incl. discharge, venting
to excl. inlet to other system incl. safety valves with their blow-off lines
to excl. inlet to other system (secondary cooling water side safety valves only when fitted directly to the cooler, otherwise on system *PCB*).

PGF Pressure system.
from excl. branch of piping system forward (*PGA*)
from incl. first shut-off valve of control station in make-up water supply
to excl. inlet to piping system return (*PGB*) incl. head tank with associated eguipment incl. control station in make-up watersupply incl. discharge, venting
to excl. inlet to other system.

PGH Closed cooling water system for main groups *E* and *H*.

PGL Closed cooling water system for main groups *G*, *L* and *P*.

PGM Closed cooling water system for main groups *B*, *M*, and *X*.

PGN Closed cooling water system for main group *N*.

PGQ Closed cooling water system for main groups "Q" and "S".

PGR Closed cooling water system for main group *R*.

PGX Fluid supply system for control and protection equipment.

PGY Control and protection equipment.

PH Closed cooling water treatment system for conventional area.

PHA Discharge from fluid treatment system (if not part of another system).
from excl. fluid treatment system outlet
to excl. inlet to other system.

PHB Filtering, mechanical cleaning system.
from incl. separation equipment inlet
to incl. separation equipment outlet.

PHC Aeration, gas injection system.
from excl. atmospere or
from incl. gas supply.

PHD Precipitation system (e.g. for carbonate hardness removal).
from incl. precipitation equipment inlet
to incl. precipitation equipment outlet.

PHE Acid proportioning system (e.g. for carbonate hardness removal).
from incl. acid proportioning equipment or
from excl. branch off chemicals supply system
to excl. inlet to other system.

PHF Ion exchangesystem (e.g. for demineralization).
from incl. ion exchanger inlet and
to incl. isolating valve of chemicals supply system or auxiliary fluid supply system upstream of ion exchanger.

PHG Evaporation system (e.g. for demineralization).
from incl. feedwater inlet
to incl. steam outlet and
from incl. heating steam inlet
to incl. condensate outlet.

PHH Deaeration system.
from incl. deaerator or tank inlet
to incl. tank outlet, incl. warm-up equipment of vapour condenser.

PHJ Preheating, cooling system.
from incl. preheater or cooler inlet
to incl. preheater or cooler outlet.

PHK Piping system, temporary storage system, pump system for main fluid.
Piping system:
from excl. intake or
from excl. outlet of other system
to excl. inlet to other system
to incl. fluid treatment system outlet.
Temporary storage system:
from incl. temporary storage system inlet
to incl. temporary storage system outlet.
Pump system:
from incl. pump system suction nozzle
to incl. pump system discharge nozzle.

PHL Storage system outside fluid treatment system (if not part of another system).
from incl. storage system inlet
to incl. storage system outlet, incl. intake and outfall.

PHN Chemicals supply system.
from incl. intake or
from incl. storage tank
to excl. discharge into other system.

PHP Regeneration, flushing equipment.
from incl. system inlet
to excl. inlet to other system
from excl. chemicals or auxiliary fluid supply system and flushing air supply system
to incl. regenerating, flushing equipment.

PHQ Injection system for main fluid.
from incl. injection equipment or
from excl. branch off chemicals supply system
to excl. inlet to other system.

PHR Flushing water and residues removal system, incl. neutralization.
from excl. outlet of respective system
to excl. discharge into disposal system.

PHS Sludge thickening system.
from excl. outlet of respective system
to excl. discharge into other system.

PHT Heating, cooling and flushing fluid distribution system.
from incl. heating, cooling, flushing fluid generation equipment or
from excl. branch off heating, cooling, flushing fluid supply system
to excl. user and
from excl. user.

PHV Lubricant supply system.

PHX Fluid supply system for control and protection equipment.

PHY Control and protection equipment.

PM Closed cooling water system for transformers (if separate from closed cooling water system).

PMA Closed cooling water system for transformers (if separate from closed cooling water system).
(free for use).

PMB Closed cooling water system for transformers (if separate from closed cooling water system).
(free for use).

PMC Closed cooling water system for transformers (if separate from closed cooling water system).
(free for use).

PMD Closed cooling water system for transformers (if separate from closed cooling water system).
(free for use).

PME Closed cooling water system for transformers (if separate from closed cooling water system).
(free for use).

PMF Closed cooling water system for transformers (if separate from closed cooling water system).
(free for use).

PMG Closed cooling water system for transformers (if separate from closed cooling water system).
(free for use).

PMH Closed cooling water system for transformers (if separate from closed cooling water system).
(free for use).

PMJ Closed cooling water system for transformers (if separate from closed cooling water system).
(free for use).

PMK Closed cooling water system for transformers (if separate from closed cooling water system).
(free for use).

PML Closed cooling water system for transformers (if separate from closed cooling water system).
(free for use).

PMM Closed cooling water system for transformers (if separate from closed cooling water system).
(free for use).

PMN Closed cooling water system for transformers (if separate from closed cooling water system).
(free for use).

PMP Closed cooling water system for transformers (if separate from closed cooling water system).
(free for use).

PMQ Closed cooling water system for transformers (if separate from closed cooling water system).
(free for use).

PMR Closed cooling water system for transformers (if separate from closed cooling water system).
(free for use).

PMS Closed cooling water system for transformers (if separate from closed cooling water system).
(free for use).

PMT Closed cooling water system for transformers (if separate from closed cooling water system).
(free for use).

PMU Closed cooling water system for transformers (if separate from closed cooling water system).
(free for use).

PMV Lubricant supply system.

PMX Fluid supply system for control and protection equipment.

PMY Control and protection equipment.

PS Cooling tower blowdown system (if separate from *PAB*).

PSA Cooling tower blowdown system.
(free for use).

PSB Cooling tower blowdown system.
(free for use).

PSC Cooling tower blowdown system (if separate from *PAB*).
(free for use).

PSD Cooling tower blowdown system (if separate from *PAB*).
(free for use).

PSE Cooling tower blowdown system (if separate from *PAB*).
(free for use).

PU Common equipment for cooling water systems.

PUC Defrosting equipment.

PUD Fish barrier.

PUE Boat barrier.

PUG Debris filter equipment.
PUH Corrosion protection for cooling water purification.
PUK Cooling water biocide treatment.
PUN Proportioning equipment.

PV Lubricant supply system.

PVA Lubricant supply system.
(free for use).
PVB Lubricant supply system.
(free for use).
PVC Lubricant supply system.
(free for use).
PVD Lubricant supply system.
(free for use).

PW Sealing fluid supply system.

PWA Sealing fluid supply system.
(free for use).
PWB Sealing fluid supply system.
(free for use).
PWC Sealing fluid supply system.
(free for use).
PWD Sealing fluid supply system.
(free for use).
PWE Sealing fluid supply system.
(free for use).
PWF Sealing fluid supply system.
(free for use).
PWG Sealing fluid supply system.
(free for use).
PWH Sealing fluid supply system.
(free for use).
PWJ Sealing fluid supply system.
(free for use).
PWK Sealing fluid supply system.
(free for use).
PWL Sealing fluid supply system.
(free for use).
PWM Sealing fluid supply system.
(free for use).
PWN Sealing fluid supply system.
(free for use).
PWP Sealing fluid supply system.
(free for use).
PWQ Sealing fluid supply system.
(free for use).
PWR Sealing fluid supply system.
(free for use).
PWS Sealing fluid supply system.
(free for use).
PWT Sealing fluid supply system.
(free for use).
PWU Sealing fluid supply system.
(free for use).

PX Fluid supply system for control and protection equipment.

PXA Fluid supply system for control and protection equipment.
(free for use).
PXB Fluid supply system for control and protection equipment.
(free for use).
PXC Fluid supply system for control and protection equipment.
(free for use).
PXD Fluid supply system for control and protection equipment.
(free for use).

PY Control and protection equipment.

PYA Control and protection equipment.
(free for use).
PYB Control and protection equipment.
(free for use).
PYC Control and protection equipment.
(free for use).
PYD Control and protection equipment.
(free for use).

Q

AUXILIARY SYSTEMS

QC Central chemicals supply.

QE General compressed air and carrier air supply.

QF General control air supply.

QG Central gas supply for closed gas cycles (as working fluid).

QH Auxiliary steam generating system.

QJ Central gas supply, also inert gas.

QK Chilled water systems for conventional area.

QL Feedwater, steam, condensate cycle of auxiliary steam generating and distribution system.

QM Air humidifying system.

QS Central oil supply and disposal system (for systems assignable to more than one F1-function).

QU Sampling systems for conventional area.

QC Central chemicals supply.

- **QCA Common filling equipment for liquid chemical products.**
- **QCB Common filling equipment for solid chemical products.**
- **QCC Hydrazine supply and distribution.**
- **QCD Phosphate supply and distribution.**
- **QCE Ammonia supply and distribution.**
- **QCF Iron-sulphate supply and distribution.**
- **QCG Sodium-nitrite supply and distribution.**
- **QCH Sulphuric acid supply and distribution.**
- **QCJ Ammonia storage and feed for HRSG catalytic converter *HSJ*.**
- **QCK Hypochlorite generation, supply and distribution.**
- **QCV Lubricant supply system.**
- **QCX Fluid supply system for control and protection equipment.**
- **QCY Control and protection equipment.**

QE General compressed air and carrier air supply.

- **QEA Central compressed air and carrier air generation system.**
- **QEB Central compressed air and carrier air distribution system.**
- **QEE Compressed air and carrier air supply system for main group *E*.**
- **QEH Compressed air and carrier air supply system for main group *H*.**
- **QEL Compressed air and carrier air supply system for main groups *G*, *L* and *P*.**
- **QEM Compressed air and carrier air supply system for main groups *B* and *M*.**
- **QEN Central compressed air and carrier air supply for main group *N*.**
- **QEQ Compressed air and carrier air supply system for main groups *Q*.**
- **QER Central compressed air and carrier air supply for main group *R*.**
- **QES Compressed air and carrier air supply system for main group *S*.**
- **QEV Lubricant supply system.**
- **QEW Sealing fluid supply system.**
- **QEX Fluid supply system for control and protection equipment.**
- **QEY Control and protection equipment.**

QF General control air supply.

- **QFA Central control air generation system.**
- **QFB Central control air distribution system.**
- **QFE Control air supply system for main group *E*.**
- **QFF Control air treatment system.**
- **QFH Control air supply system for main group *H*.**
- **QFL Control air supply system for main groups *G*, *L* and *P*.**
- **QFM Control air supply system for main groups *B* and *M*.**
- **QFN General control air supply for main group *N*.**
- **QFQ Control air supply system for main group *Q*.**
- **QFR General control air supply for main group *R*.**
- **QFS Control air supply system for main group *S*.**
- **QFV Lubricant supply system.**
- **QFW Sealing fluid supply system.**
- **QFX Fluid supply system for control and protection equipment.**
- **QFY Control and protection equipment.**

QG Central gas supply for closed gas cycles (as working fluid).

- **QGA Central gas supply for closed gas cycles (as working fluid).** (free for use).
- **QGB Central gas supply for closed gas cycles (as working fluid).** (free for use).
- **QGC Central gas supply for closed gas cycles (as working fluid).** (free for use).
- **QGD Central gas supply for closed gas cycles (as working fluid).** (free for use).
- **QGE Central gas supply for closed gas cycles (as working fluid).** (free for use).
- **QGF Central gas supply for closed gas cycles (as working fluid).** (free for use).
- **QGG Central gas supply for closed gas cycles (as working fluid).** (free for use).

QGH Central gas supply for closed gas cycles (as working fluid).
(free for use).
QGJ Central gas supply for closed gas cycles (as working fluid).
(free for use).
QGK Central gas supply for closed gas cycles (as working fluid).
(free for use).
QGL Central gas supply for closed gas cycles (as working fluid).
(free for use).
QGM Central gas supply for closed gas cycles (as working fluid).
(free for use).
QGN Central gas supply for closed gas cycles (as working fluid).
(free for use).
QGP Central gas supply for closed gas cycles (as working fluid).
(free for use).
QGQ Central gas supply for closed gas cycles (as working fluid).
(free for use).
QGR Central gas supply for closed gas cycles (as working fluid).
(free for use).
QGS Central gas supply for closed gas cycles (as working fluid).
(free for use).
QGT Central gas supply for closed gas cycles (as working fluid).
(free for use).
QGU Central gas supply for closed gas cycles (as working fluid).
(free for use).
QGV Lubricant supply system.
QGW Sealing fluid supply system.
QGX Fluid supply system for control and protection equipment.
QGY Control and protection equipment.

QH Auxiliary steam generating system.

QHA Pressure system.
QHB Support structure, enclosure, steam generator interior.
QHC Fireside heat transfer surface cleaning equipment.
QHD Ash and slag removal.
QHE Blowdown system, flash drain system.
QHF Bunker, feeder and pulverizing system.
QHG Boiler water circulation system (also for electrode steam boiler).
QHH Main firing system (also for electric heating).
QHJ Ignition firing equipment (if separate).
QHL Combustion air system (primary air, secondary air).
QHM Gas heating system (for closed cycle).
QHN Flue gas exhaust (without flue gas treatment).
QHP Mechanical dust handling system.
QHQ Electrostatic precipitator.
QHR Chemical flue gas treatment system incl. residues removal adsorptive process.
QHS Chemical flue gas treatment system incl. residues removal catalytic process.
QHT Chemical flue gas treatment system incl. residues removal absorptive process.
QHU Flue gas reheating system.
QHV Lubricant supply system.
QHX Fluid supply system for control and protection equipment.
QHY Control and protection equipment.

QJ Central gas supply, also inert gas.

QJB Gas supply and distribution system O2 (oxygen).
QJD Gas supply and distribution system N2 (nitrogen).
QJE Gas generation system N2 (nitrogen).
QJF Gas supply and distribution system H2 (hydrogen).
QJG Central gas supply, gas generation systen H2 (hydrogen).
QJH Gas supply and distribution system CH4 (methane).
QJK Gas supply and distribution system CO2 (carbon dioxide).
QJM Gas supply and distribution system C2H2 (acetylene).
QJN Gas supply and distribution system He (helium).
QJP Gas supply and distribution system C3H8 (propane gas).
QJQ Gas supply and distribution system AR (argon).
QJR Gas supply and distribution system N2O (laughing gas).

QJV Lubricant supply system.
QJW Sealing fluid supply system.
QJX Fluid supply system for control and protection equipment.
QJY Control and protection equipment.

QK Chilled water systems for conventional area.

QKA Chilled water systems for conventional area.
(free for use e.g. building specific).
QKB Chilled water systems for conventional area.
(free for use e.g. building specific).
QKC Chilled water systems for conventional area.
(free for use e.g. building specific).
QKD Chilled water systems for conventional area.
(free for use e.g. building specific).
QKE Chilled water systems for conventional area.
(free for use e.g. building specific).
QKF Chilled water systems for conventional area.
(free for use e.g. building specific).
QKG Chilled water systems for conventional area.
(free for use e.g. building specific).
QKH Chilled water systems for conventional area.
(free for use e.g. building specific).
QKJ Chilled water systems for conventional area.
(free for use e.g. building specific).
QKK Chilled water systems for conventional area.
(free for use e.g. building specific).
QKL Chilled water systems for conventional area.
(free for use e.g. building specific).
QKM Chilled water systems for conventional area.
(free for use e.g. building specific).
QKN Chilled water systems for conventional area.
(free for use e.g. building specific).
QKP Chilled water systems for conventional area.
(free for use e.g. building specific).
QKQ Chilled water systems for conventional area.
(free for use e.g. building specific).
QKR Chilled water systems for conventional area.
(free for use e.g. building specific).
QKS Chilled water systems for conventional area.
(free for use e.g. building specific).
QKT Chilled water systems for conventional area.
(free for use e.g. building specific).
QKU Chilled water systems for conventional area.
(free for use e.g. building specific).
QKV Lubricant supply system.
QKX Fluid supply system for control and protection equipment.
QKY Control and protection equipment.

QL Feedwater, steam, condensate cycle of auxiliary steam generating and distribution system.

QLA Feedwater system.
QLB Steam system.
QLC Condensate system.
QLD Condensate polishing plant.
QLF Common equipment for auxiliary steam generation and distribution systems.
QLV Lubricant supply system.
QLX Fluid supply system for control and protection equipment.
QLY Control and protection equipment.

QM Air humidifying system.

QMA Air humidifying system.
(free for use e.g. building specific).
QMB Air humidifying system.
(free for use e.g. building specific).
QMC Air humidifying system.
(free for use e.g. building specific).
QMD Air humidifying system.
(free for use e.g. building specific).
QME Air humidifying system.
(free for use e.g. building specific).
QMF Air humidifying system.
(free for use e.g. building specific).
QMG Air humidifying system.
(free for use e.g. building specific).
QMH Air humidifying system.
(free for use e.g. building specific).
QMJ Air humidifying system.
(free for use e.g. building specific).
QMK Air humidifying system.
(free for use e.g. building specific).

QML Air humidifying system.
(free for use e.g. building specific).
QMM Air humidifying system.
(free for use e.g. building specific).
QMN Air humidifying system.
(free for use e.g. building specific).
QMP Air humidifying system.
(free for use e.g. building specific).
QMQ Air humidifying system.
(free for use e.g. building specific).
QMR Air humidifying system.
(free for use e.g. building specific).
QMS Air humidifying system.
(free for use e.g. building specific).
QMT Air humidifying system.
(free for use e.g. building specific).
QMU Air humidifying system.
(free for use e.g. building specific).
QMV Lubricant supply system.
QMX Fluid supply system for control and protection equipment.
QMY Control and protection equipment.

QS Central oil supply and disposal system (for systems assignable to more than one F1-function).

QSA Central oil supply and disposal system (for systems assignable to more than one F1-function).
(free for use).
QSB Central oil supply and disposal system (for systems assignable to more than one F1-function).
(free for use).
QSC Central oil supply and disposal system (for systems assignable to more than one F1-function).
(free for use).
QSD Central oil supply and disposal system (for systems assignable to more than one F1-function).
(free for use).
QSE Central oil supply and disposal system (for systems assignable to more than one F1-function).
(free for use).
QSF Central oil supply and disposal system (for systems assignable to more than one F1-function).
(free for use).
QSG Central oil supply and disposal system (for systems assignable to more than one F1-function).
(free for use).
QSH Central oil supply and disposal system (for systems assignable to more than one F1-function).
(free for use).
QSJ Central oil supply and disposal system (for systems assignable to more than one F1-function).
(free for use).
QSK Central oil supply and disposal system (for systems assignable to more than one F1-function).
(free for use).
QSL Central oil supply and disposal system (for systems assignable to more than one F1-function).
(free for use).
QSM Central oil supply and disposal system (for systems assignable to more than one F1-function).
(free for use).
QSN Central oil supply and disposal system (for systems assignable to more than one F1-function).
(free for use).
QSP Central oil supply and disposal system (for systems assignable to more than one F1-function).
(free for use).
QSQ Central oil supply and disposal system (for systems assignable to more than one F1-function).
(free for use).
QSR Central oil supply and disposal system (for systems assignable to more than one F1-function).
(free for use).
QSS Central oil supply and disposal system (for systems assignable to more than one F1-function).
(free for use).
QST Central oil supply and disposal system (for systems assignable to more than one F1-function).
(free for use).
QSU Central oil supply and disposal system (for systems assignable to more than one F1-function).
(free for use).
QSV Lubricant supply system.
QSX Fluid supply system for control and protection equipment.
QSY Control and protection equipment.

QU Sampling systems for conventional area.

- **QUE Sampling systems for main group *E*.**
- **QUH Sampling systems for main group *H* (gas-side).**
- **QUL Sampling systems for main group *H* (steam-water-side), *L* and *M*.**
- **QUN Sampling systems for main group *N*.**
- **QUP Sampling systems for main groups *G* and *P*.**
- **QUQ Sampling systems for main group *Q*.**
- **QUR Sampling systems for main group *R*.**
- **QUS Sampling systems for main group *S*.**
- **QUX Fluid supply system for control and protection equipment.**
- **QUY Control and protection equipment.**

R

GAS GENERATION AND TREATMENT

RA Gas generation.

RB Support structure.

RC Feedstock systems.

RD Discharge systems for gasification residues.

RE Gasifying agent generation and distribution.

RG Main gas cooling systems (if not *RA*).

RH Main gas piping systems, storage, compression, expansion.

RJ Main gas precipitator.

RK Main gas clean-up (not *RJ*) including regeneration.

RL Acid gas, including treatment systems.

RM Gas recycle, storage and compression systems.

RN Collection, storage and recycle systems for gas condensate.

RP Inert gas, including recovery systems.

RS Supply and removal systems for water, steam and condensate.

RT Waste water collection and drainage systems.

RU Waste water treatment systems.

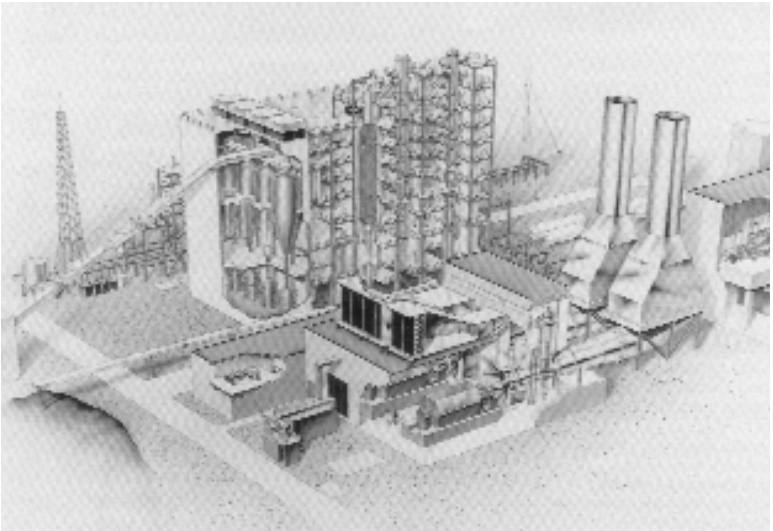
RV Lubricant supply systems.

RW Sealing fluid supply systems.

RX Fluid supply systems for control and protection equipment.

RY Control and protection equipment.

RZ Injection and proportioning systems.



RA Gas generation.

RAA Gas generator.
from incl. fuel, ignition fuel and fluxing agent inlet
or from excl. burner and nozzle system
to excl. removal system or
to excl. solids separator and reycle system or
to excl. gas generator quench gas section or
to incl. main gas outlet.

RAB Gas generator interior.

RAC Gas generator internals.

RAD Lining and refractory brickwork.

RAE Cooling system.
from incl. gas generator cooling system inlet
to incl. gas generator cooling system outlet.

RAF Solids separator and recycle system.
from excl. gas generator outlet
to excl. gas generator inlet
to incl. main gas outlet.

RAG Gas generator quench gas section.
from incl. quench gas section inlet
to incl. quench gas section outlet.

RAH Main burner system.
from excl. feedstock system or
from excl. gasifying agent generation and distribution system
to excl. gas generator interior.

RAJ Pilot burner system.
from excl. pilot burner fuel storage and distribution system or
from excl. gasifying agent generation and distribution system
to excl. gas generator interior.

RAK Gas generator ignition and standby burner system incl. combustion air system.
from excl. ignition fuel storage and distribution system or
from incl. combustion air inlet
to excl. gas generator interior.

RAL Ignition and standby hot gas generation and feed system incl. combustion air system.
from excl. ignition fuel storage and distribution system or
from incl. combustion air inlet
to excl. gas generator interior.

RAM Separate gasifying agent injection system.
from excl. gasifying agent generation and distribution system
to excl. gas generator interior.

RAN Injection from gas recycle system.
from excl. gas recycle system
to excl. gas generator interior.

RAP Gas condensate injection system.
from excl. gas recycle system for gas condensate
to excl. gas generator interior.

RAQ Injection system for other feedstock.
from excl. other feedstock system
to excl. gas generator interior.

RAR Fluxing agent injection system.
from excl. feed system for fluxing agents
to excl. gas generator interior.

RAS Filter cleaning system.
from excl. branch off supply system.

RAT Fluidizing air injection system.
from excl. fluidizing gas piping system
to excl. gas generator interior.

RAV Lubricant supply system.

RAW Sealing fluid supply system.

RAX Fluid supply system for control and protection equipment.

RAY Control and protection equipment.

RB Support structure.

RBA Frame including foundations.

RBB Enclosures, insulations.

RBD Platforms and stairways.

RBE Support structure.
(free for use as process demands).

RBF Support structure.
(free for use as process demands).

RC Feedstock systems.

RCA Fuel storage bunker, hopper (atmospheric pressure).
from excl. receiving point
to excl. distribution and transport system (atmospheric pressure).

RCB Distribution and transport system (atmospheric pressure).
from excl. fuel storage bunker, hopper outlet
to excl. pulverizing and mixing system (slurry) or
to excl. air lock system, slurry pump system.

RCC Pulverizing and mixing system (slurry).
from excl. distribution and transport system (atmospheric pressure)
to excl. airlock system, slurry pump system.

RCE Airlock system, slurry pump system.
from excl. distribution and transport system (atmospheric pressure) or
from excl. pulverizing and mixing system (slurry)
to excl. fuel hopper (pressurized).

RCF Fuel storage bunker, container (pressurized).
from excl. airlock system, slurry pump system
to excl. distribution and transport system (pressurized).

RCG Distribution and transport system (pressurized).
from excl. fuel hopper (pressurized)
to excl. gas generator or
to excl. main burner system.

RCJ Ignition fuel storage and distribution system.
from excl. ignition fuel supply system
to excl. gas generator or
to excl. gas generator ignition and standby burner system or
to excl. ignition and standby hot gas generation and feed system or
to excl. feedstock system.

RCK Pilot burner fuel storage and distribution system.
from excl. fuel supply system
to excl. pilot burner system.

RCL Proportioning system for other feedstock.
from excl. supply system
to excl. gas generator or
to excl. feedstock system.

RCM Proportioning system for fluxing agents.
from excl. supply system
to excl. gas generator or
to excl. feed system for fluxing agents.

RCS Filter cleaning system.
from excl. branch off supply system.

RCV Lubricant supply system.

RCW Sealing fluid supply system.

RCX Fluid supply system for control and protection equipment.

RCY Control and protection equipment.

RD Discharge systems for gasification residues.

RDA Collection, transport and treatment system (pressurized) (system 1).
from excl. receiving point
to excl. gas generator or
to excl. pressure relief system.

RDB Pressure relief system (system 1).
from excl. collection, transport and treatment system (pressurized)
to excl. collection, transport and treatment system (atmospheric pressure).

RDC Collection, transport and treatment system (atmospheric pressure) (system 1).
from excl. pressure relief system
to excl. transport and treatment system for fuel conversion residues or
to excl. feedstock system.

RDE Collection, transport and treatment system (pressurized) (system 2).
from excl. receiving point
to excl. gas generator or
to excl. pressure relief system.

RDF Pressure relief system (system 2).
from excl. collection, transport and treatment system (pressurized)
to excl. collection, transport and treatment system (atmospheric pressure).

RDG Collection, transport and treatment system (atmospheric pressure) (system 2).
from excl. pressure relief system
to excl. transport and treatment system for fuel conversion residues or
to excl. feedstock system.

RDJ Collection, transport and treatment system (pressurized) (system 3).
from excl. receiving point
to excl. gas generator or
to excl. pressure relief system.

RDK Pressure relief system (system 3).
from excl. collection, transport and treatment system (pressurized)
to excl. collection, transport and treatment system (atmospheric pressure).

RDL Collection, transport and treatment system (atmospheric pressure) (system 3).
from excl. pressure relief system
to excl. transport and treatment system for fuel conversion residues or
to excl. feedstock system.

RDN Collection, transport and treatment system (pressurized) (system 4).
from excl. receiving point
to excl. gas generator or
to excl. pressure relief system.

RDP Pressure relief system (system 4).
from excl. collection, transport and treatment system (pressurized)
to excl. collection, transport and treatment system (atmospheric pressure).

RDQ Collection, transport and treatment system (atmospheric pressure) (system 4).
from excl. pressure relief system
to excl. transport and treatment system for fuel conversion residues or
to excl. feedstock system.

RDS Filter cleaning system.
from excl. branch off supply system.

RDV Lubricant supply system.

RDW Sealing fluid supply system.

RDX Fluid supply system for control and protection equipment.

RDY Control and protection equipment.

RE Gasifying agent generation and distribution.

REA Air (gasifying agent) compression and supercompression system.
from excl. atmosphere or
from excl. compressor casing outlet of gas turbine
to excl. compressed air distribution system or
to excl. gasifying agent heater.

REB Gasifying agent heater (other than *RGC*).
from incl. preheater inlet
to incl. preheater outlet or
to incl. preheater outlet incl. desuperheater.

REC Compressed air distribution system (incl. oxygen-enriched air).
from excl. air (gasifying agent) compression and supercompression system outlet or
from excl. oxygen piping system (pressurized) or
from excl. other system
to excl. other system or
to excl. main burner system or
to excl. pilot burner system or
to excl. separate gasifying agent injection system.

REE Air compression and supercompression system upstream of air separation plant.
from excl. atmosphere or
from excl. compressor casing outlet of gas turbine
to incl. air compression and supercompression system outlet upstream of air separation plant.

REF Air separation plant.
from excl. air (gasifying agent) compression and supercompression system outlet upstream of air separation plant
to excl. oxygen piping system (pressurized) or
to excl. oxygen compression and supercompression system or
to excl.liquid oxygen discharge sys. or
to excl. discharge sys. for other gases (inert gases) from air separation plant or
to excl. liquid nitrogen discharge sys. or
to excl. inert gas, including recovery sys. or
to excl. nitrogen piping sys. (*RPG*).

REG Oxygen compression and supercompression system.
from incl. oxygen compression and supercompression system inlet
to incl. oxygen compression and supercompression system outlet.

REH Oxygen piping system (pressurized).
from excl. air separation plant or
from excl. oxygen compression and supercompression system or
from excl. other system
to excl. other system or
to excl. main burner system or
to excl. pilot burner system or
to excl. separate gasifying agent injection system.

REJ Liquid oxygen outlet system.
from excl. air separation plant
to excl. oxygen piping system (pressurized) or
to excl. other system.

REK Discharge system for other gases from air separation plant (inert gases).
from excl. air separation plant
to incl. dispatch facility or
to excl. other system.

REL Liquid nitrogen discharge system.
from excl. air separation plant
to excl. inert gas, including recovery system or
to excl. other system or
to incl. dispatch facility.

REP External oxygen supply system.
from excl. receiving point
to excl. oxygen compression and supercompression system or
to excl. oxygen piping system (pressurized).

RER Gasifying steam system.
from excl. water/steam system or
from excl. other system
to excl. main burner system or
to excl. pilot burner system or
to excl. separate gasifying agent injection system.

REV Lubricant supply system.

REW Sealing fluid supply system.

REX Fluid supply system for control. and protection equipment.

REY Control and protection equipment.

RG Main gas cooling systems (if not *RA*).

RGA Indirect heat transfer to water/steam cycle.
from incl. main gas inlet or
from incl. water/steam inlet
to incl. main gas outlet or
to incl. water/steam outlet or
to incl. gas condensate outlet.

RGB Indirect heat transfer to gas.
from incl. main gas inlet or
from incl. gas recycle system inlet or
from incl. inert gas inlet
to incl. main gas outlet or
to incl. gas recycle system outlet or
to incl. inert gas outlet or
to incl. gas condensate outlet.

RGC Indirect heat transfer to gasifying agent.
from incl. main gas inlet or
from incl. gasifying agent inlet
to incl. main gas outlet or
to incl. gasifying agent outlet or
to incl. gas condensate outlet.

RGD Indirect heat transfer to combustion air.
from incl. main gas inlet or
from incl. combustion air inlet
to incl. main gas outlet or
to incl. combustion air outlet or
to incl. gas condensate outlet.

RGE Indirect heat transfer to cooling water.
from incl. main gas inlet or
from incl. cooling water inlet
to incl. main gas outlet or
to incl. cooling water outlet or
to incl. gas condensate outlet.

RGJ Direct heat transfer (quench) to gas.
from incl. main gas inlet or
from incl. coolant inlet
from excl. coolant supply line
to incl. main gas outlet.

RGK Direct heat transfer (quench, saturation) to steam.

RGL Direct heat transfer (quench, saturation) to water.

RGM Direct heat transfer (quench) to other fluids.

RGS Filter cleaning system from excl. branch off supply system.

RGV Lubricant supply system.

RGW Sealing fluid supply system.

RGX Fluid supply system for control and protection equipment.

RGY Control and protection equipment.

RGZ Injection and proportioning system.

RH Main gas piping systems, storage, compression, expansion.

RHA Main gas piping system.
from excl. other system
to excl. other system.

RHE Humidification system.
from excl. main gas piping system or
from excl. water/steam cycle or
from excl. collection, storage and recycle system for gas condensate
to excl. main gas piping system or
to excl. water/steam cycle or
to excl. collection, storage and recycle system for gas condensate.

RHF Conditioning system 1.
from excl. branch off supply system or
from incl. unloading facility.

RHG Conditioning system 2.
from excl. branch off supply system or
from incl. unloading facility.

RHK Gas storage system.
from excl. main gas piping system or
from excl. gas compression system
to excl. main gas piping system or
to excl. gas pressure reducing system.

RHM Gas compression system.
from excl. main gas piping system
to excl. main gas piping system or
to excl. gas storage system or
to excl. gas recycle system.

RHN Gas pressure reducing system.
from excl. main gas piping system or
from excl. gas storage system
to excl. main gas piping system or
to excl. other system.

RHP Flare system 1.
from excl. main gas piping system
to incl. flare system outlet.

RHQ Flare system 2.
from excl. main gas piping system
to incl. flare system outlet.
RHS Filter cleaning system.
from excl. branch off supply system.
RHV Lubricant supply system.
RHW Sealing fluid supply system.
RHX Fluid supply system for control and protection equipment.
RHY Control and protection equipment.
RHZ Injection and proportioning system.

RJ Main gas precipitator.

RJA Cartridge filter system.
from incl. cartridge filter inlet
from excl. filter cleaning system
to incl. cartridge filter outlet
to excl. gasification residues removal system.
RJB Cyclone filter system.
from incl. cyclone filter inlet
from excl. filter cleaning system
to incl. cyclone filter outlet
to excl. gasification residues removal system.
RJC Bag filter system.
from incl. bag filter inlet
from excl. filter cleaning system
to incl. bag filter outlet
to excl. gasification residues removal system.
RJD Packed-bed filter system.
from incl. packed-bed filter inlet
from excl. filter cleaning system
to incl. packed-bed filter outlet
to excl. gasification residues removal system.
RJE Electrostatic precipitator system.
from incl. electrostatic precipitator inlet
from excl. filter cleaning system
to incl. electrostatic precipitator outlet
to excl. gasification residues removal system.
RJS Filter cleaning system.
from excl. branch off supply system.
RJV Lubricant supply system.
RJW Sealing fluid supply system.
RJX Fluid supply system for control and protection equipment.
RJY Control and protection equipment.

RK Main gas clean-up (not *RJ*) including regeneration.

RKA Scrubber system.
from incl. inlet
to incl. outlet.
RKB Conversion system including hydrolysis.
from incl. inlet
to incl. outlet.
RKC Gas purification system.
from incl. inlet
to incl. outlet.
RKG Scrubber regeneration system 1.
from incl. inlet
to incl. outlet.
RKH Scrubber regeneration system 2.
from incl. inlet
to incl. outlet.
RKJ Scrubber regeneration system 3.
from incl. inlet
to incl. outlet.
RKL Regeneration system 1 for purification system.
from incl. inlet
to incl. outlet.
RKM Regeneration system 2 for purification system.
from incl. inlet
to incl. outlet.
RKN Regeneration system 3 for purification system.
from incl. inlet
to incl. outlet.
RKQ Refrigeration system.
from incl. inlet
to incl. outlet.
RKV Lubricant supply system.
RKW Sealing fluid supply system.
RKX Fluid supply system for control and protection equipment.
RKY Control and protection equipment.
RKZ Injection and proportioning system.

RL Acid gas, including treatment systems.

RLA Thermal treatment (Claus process).
from incl. inlet
to incl. outlet.
RLB Catalytic treatment (Claus process).
from incl. inlet
to incl. outlet.
RLE Absorber, wet oxidation system.
from incl. inlet
to incl. outlet.

RLH Thermal treatment (tail gas).
from incl. inlet
to incl. outlet.

RLJ Catalytic treatment (tail gas).
from incl. inlet
to incl. outlet.

RLK Absorption treatment (tail gas).
from incl. inlet
to incl. outlet.

RLN Sulphur treatment system.
from incl. inlet
to incl. outlet.

RLP Sulphur forwarding and storage system.
from incl. inlet
to incl. outlet.

RLR Sulphuric acid system.
from incl. inlet
to incl. outlet.

RLS Sulphuric acid storage system.
from incl. inlet
to incl. outlet.

RLW Sealing fluid supply system.

RLX Fluid supply system for control and protection equipment.

RLY Control and protection equipment.

RLZ Injection and proportioning system.

RM Gas recycle, storage and compression systems.

RMA Quench gas piping system.
from excl. main gas piping system or
from excl. branch off other system
to excl. direct heat transfer (quench) to gas
or
to excl. gas generator quench gas section.

RMB Piping system for expanded gas (not from airlock system).
from excl. pressure reducing valve
to excl. other system (excl. quench gas compressor).

RMC Acid gas piping system.
from excl. regeneration system
to excl. acid gas, incl. treatment system.

RMD Fluidizing gas piping system.
from excl. main gas piping system
to excl. fluidizing air injection system or
to excl. load system (excl. fluidizing gas compressor).

RME Airlock gas piping system (not inert gas).
from excl. branch off other system
to excl. airlocks (excl. airlock gas compressor).

RMF Other gas piping system.
from excl. branch off other system
to excl. other system.

RMH Storage system 1.
from excl. store inlet
to excl. other gas piping system.

RMJ Storage system 2.
from excl. store inlet
to excl. other gas piping system.

RMM Quench gas compressor system.
from incl. compressor system inlet
to incl. compressor system outlet.

RMN Expanded gas compressor system.
from incl. compressor system inlet
to incl. compressor system outlet.

RMP Acid gas compressor system.
from incl. compressor system inlet
to incl.r compressor system outlet.

RMQ Fluidizing gas compressor system.
from incl. compressor system inlet
to incl. compressor system outlet.

RMR Airlock gas compressor system (not inert gas).
from incl. compressor system inlet
to incl. compressor system outlet.

RMS Compressor system for other gases.
from incl. compressor system inlet
to incl. compressor system outlet.

RMV Lubricant supply system.

RMW Sealing fluid supply system.

RMX Fluid supply system for control and protection equipment.

RMY Control and protection equipment.

RMZ Injection and proportioning system.

RN Collection, storage and recycle systems for gas condensate.

RNA Collection, storage and recycle systems for gas condensate.
(free for use, process specific).

RNB Collection, storage and recycle systems for gas condensate.
(free for use, process specific).

RNC Collection, storage and recycle systems for gas condensate.
(free for use, process specific).

RND Collection, storage and recycle systems for gas condensate.
(free for use, process specific).

RNE Collection, storage and recycle systems for gas condensate.
(free for use, process specific).

RNF Collection, storage and recycle systems for gas condensate.
(free for use, process specific).

RNG Collection, storage and recycle systems for gas condensate.
(free for use, process specific).
RNH Collection, storage and recycle systems for gas condensate.
(free for use, process specific).
RNJ Collection, storage and recycle systems for gas condensate.
(free for use, process specific).
RNK Collection, storage and recycle systems for gas condensate.
(free for use, process specific).
RNL Collection, storage and recycle systems for gas condensate.
(free for use, process specific).
RNM Collection, storage and recycle systems for gas condensate.
(free for use, process specific).
RNN Collection, storage and recycle systems for gas condensate.
(free for use, process specific).
RNP Collection, storage and recycle systems for gas condensate.
(free for use, process specific).
RNQ Collection, storage and recycle systems for gas condensate.
(free for use, process specific).
RNR Collection, storage and recycle systems for gas condensate.
(free for use, process specific).
RNS Collection, storage and recycle systems for gas condensate.
(free for use, process specific).
RNT Collection, storage and recycle systems for gas condensate.
(free for use, process specific).
RNU Collection, storage and recycle systems for gas condensate.
(free for use, process specific).
RNV Lubricant supply system.
RNW Sealing fluid supply system.
RNX Fluid supply system for control and protection equipment.
RNY Control and protection equipment.

RP Inert gas, including recovery systems.

RPA Inert gas generation by air fractionation.
from excl. atmosphere
to incl. inert gas distribution system inlet.
RPB Inert gas generation by molecular sieving.
from excl. atmosphere
to incl. inert gas distribution system inlet.
RPC Inert gas generation by combustion.
from excl. atmosphere
to incl. inert gas distribution system inlet.
RPG Nitrogen piping system for addition ahead of burner gas turbine.
from excl. air separation plant outlet or
from excl. compressor outlet
to excl. compressor inlet or
to excl. combustion chamber inlet.
RPH Supercompression of nitrogen from *RPG*.
from incl. compressor inlet
to incl. compressor outlet
RPJ Inert gas distribution system including storage system.
from excl. inert gas generator outlet or
from excl. air separation plant *REF* outlet or
from excl. compressor outlet
to excl. compressor inlet or
to excl. inert gas load system inlet.
(free for use, process specific).
RPK Inert gas distribution system including storage system.
from excl. inert gas generator outlet or
from excl. air separation plant *REF* outlet or
from excl. compressor outlet
to excl. compressor inlet or
to excl. inert gas load system inlet.
(free for use, process specific).
RPL Inert gas distribution system including storage system.
from excl. inert gas generator outlet or
from excl. air separation plant *REF* outlet or
from excl. compressor outlet
to excl. compressor inlet or
to excl. inert gas load system inlet.
(free for use, process specific).
RPM Inert gas distribution system including storage system.
from excl. inert gas generator outlet or
from excl. air separation plant *REF* outlet or
from excl. compressor outlet
to excl. compressor inlet or
to excl. inert gas load system inlet.
(free for use, process specific).

RPN Inert gas distribution system including storage system.
from excl. inert gas generator outlet or
from excl. air separation plant *REF* outlet
or
from excl. compressor outlet
to excl. compressor inlet or
to excl. inert gas load system inlet.
(free for use, process specific).

RPP Inert gas compressor system.
from incl. compressor inlet
to incl. compressor outlet.
(free for use, process specific).

RPQ Inert gas compressor system.
from incl. compressor inlet
to incl. compressor outlet.
(free for use, process specific).

RPR Inert gas compressor system.
from incl. compressor inlet
to incl. compressor outlet.
(free for use, process specific).

RPS Inert gas compressor system.
from incl. compressor inlet
to incl. compressor outlet.
(free for use, process specific).

RPW Sealing fluid supply system.

RPX Fluid supply system for control and protection equipment.

RPY Control and protection equipment.

RS Supply and removal systems for water, steam and condensate.

RSA Supply and removal systems for water, steam and condensate.
The following applies to supply systems:
from excl. branch off other system
to excl. user
The following applies to removal systems:
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RSB Supply and removal systems for water, steam and condensate.
The following applies to supply systems:
from excl. branch off other system
to excl. user
The following applies to removal systems:
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RSC Supply and removal systems for water, steam and condensate.
The following applies to supply systems:
from excl. branch off other system
to excl. user
The following applies to removal systems:
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RSD Supply and removal systems for water, steam and condensate.
The following applies to supply systems:
from excl. branch off other system
to excl. user
The following applies to removal systems:
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RSE Supply and removal systems for water, steam and condensate.
The following applies to supply systems:
from excl. branch off other system
to excl. user
The following applies to removal systems:
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RSF Supply and removal systems for water, steam and condensate.
The following applies to supply systems:
from excl. branch off other system
to excl. user
The following applies to removal systems:
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RSG Supply and removal systems for water, steam and condensate.
The following applies to supply systems:
from excl. branch off other system
to excl. user
The following applies to removal systems:
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RSH Supply and removal systems for water, steam and condensate.
The following applies to supply systems:
from excl. branch off other system
to excl. user
The following applies to removal systems:
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RSJ **Supply and removal systems for water, steam and condensate.**
The following applies to supply systems:
from excl. branch off other system
to excl. user
The following applies to removal systems:
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RSK **Supply and removal systems for water, steam and condensate.**
The following applies to supply systems:
from excl. branch off other system
to excl. user
The following applies to removal systems:
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RSL **Supply and removal systems for water, steam and condensate.**
The following applies to supply systems:
from excl. branch off other system
to excl. user
The following applies to removal systems:
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RSM **Supply and removal systems for water, steam and condensate.**
The following applies to supply systems:
from excl. branch off other system
to excl. user
The following applies to removal systems:
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RSN **Supply and removal systems for water, steam and condensate.**
The following applies to supply systems:
from excl. branch off other system
to excl. user
The following applies to removal systems:
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RSP **Supply and removal systems for water, steam and condensate.**
The following applies to supply systems:
from excl. branch off other system
to excl. user
The following applies to removal systems:
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RSQ **Supply and removal systems for water, steam and condensate.**
The following applies to supply systems:
from excl. branch off other system
to excl. user
The following applies to removal systems:
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RSR **Supply and removal systems for water, steam and condensate.**
The following applies to supply systems:
from excl. branch off other system
to excl. user
The following applies to removal systems:
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RSS **Supply and removal systems for water, steam and condensate.**
The following applies to supply systems:
from excl. branch off other system
to excl. user
The following applies to removal systems:
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RST **Supply and removal systems for water, steam and condensate.**
The following applies to supply systems:
from excl. branch off other system
to excl. user
The following applies to removal systems:
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RSU **Supply and removal systems for water, steam and condensate.**
The following applies to supply systems:
from excl. branch off other system
to excl. user
The following applies to removal systems:
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RSV **Lubricant supply system.**

RSW **Sealing fluid supply system.**

RSX **Fluid supply system for control and protection equipment.**

RSY **Control and protection equipment.**

RSZ **Injection and proportioning system.**

RT Waste water collection and drainage systems.

RTA Waste water collection and drainage systems.
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RTB Waste water collection and drainage systems.
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RTC Waste water collection and drainage systems.
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RTD Waste water collection and drainage systems.
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RTE Waste water collection and drainage systems.
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RTF Waste water collection and drainage systems.
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RTG Waste water collection and drainage systems.
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RTH Waste water collection and drainage systems.
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RTJ Waste water collection and drainage systems.
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RTK Waste water collection and drainage systems.
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RTL Waste water collection and drainage systems.
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RTM Waste water collection and drainage systems.
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RTN Waste water collection and drainage systems.
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RTP Waste water collection and drainage systems.
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RTQ Waste water collection and drainage systems.
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RTR Waste water collection and drainage systems.
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RTS Waste water collection and drainage systems.
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RTT Waste water collection and drainage systems.
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RTU Waste water collection and drainage systems.
from excl. producer
to excl. discharge into other system.
(free for use, process specific).

RTV Lubricant supply system.

RTW Sealing fluid supply system.

RTX Fluid supply system for control and protection equipment.

RTY Control and protection equipment.

RTZ Injection and proportioning system.

RU Waste water treatment systems.

RUA Waste water treatment systems.
from excl. inlet
to incl. outlet.
(free for use, process specific).

RUB Waste water treatment systems.
from excl. inlet
to incl. outlet.
(free for use, process specific).

RUC Waste water treatment systems.
from excl. inlet
to incl. outlet.
(free for use, process specific).

RUD Waste water treatment systems.
from excl. inlet
to incl. outlet.
(free for use, process specific).

RUE Waste water treatment systems.
from excl. inlet
to incl. outlet.
(free for use, process specific).

RUF Waste water treatment systems.
from excl. inlet
to incl. outlet.
(free for use, process specific).

RUG Waste water treatment systems.
from excl. inlet
to incl. outlet.
(free for use, process specific).

RUJ Inert gas compressor system.
from incl. receiving point
to excl. discharge.
(free for use, process specific).

RUK Inert gas compressor system.
from incl. receiving point
to excl. discharge.
(free for use, process specific).

RUL Inert gas compressor system.
from incl. receiving point
to excl. discharge.
(free for use, process specific).

RUM Waste water treatment systems.
from excl. inlet
to incl. outlet.
(free for use, process specific).

RUN Waste water treatment systems.
from excl. inlet
to incl. outlet.
(free for use, process specific).

RUP Waste water treatment systems.
from excl. inlet
to incl. outlet.
(free for use, process specific).

RUQ Waste water treatment systems.
from excl. inlet
to incl. outlet.
(free for use, process specific).

RUR Waste water treatment systems.
from excl. inlet
to incl. outlet.
(free for use, process specific).

RUS Residues treatment and removal systems.
from excl. receiving point
to excl. discharge.
(free for use, process specific).

RUT Residues treatment and removal systems.
from excl. receiving point
to excl. discharge.
(free for use, process specific).

RUU Residues treatment and removal systems.
from excl. receiving point
to excl. discharge.
(free for use, process specific).

RUV Lubricant supply system.

RUW Sealing fluid supply system.

RUX Fluid supply system for control and protection equipment.

RUY Control and protection equipment.

RUZ Injection and proportioning system.

RV Lubricant supply systems.

RVA Lubricant supply systems.
(free for use).

RVB Lubricant supply systems.
(free for use).

RVC Lubricant supply systems.
(free for use).

RVD Lubricant supply systems.
(free for use).

RVE Lubricant supply systems.
(free for use).

RVF Lubricant supply systems.
(free for use).

RVG Lubricant supply systems.
(free for use).

RVH Lubricant supply systems.
(free for use).

RVJ Lubricant supply systems.
(free for use).

RVK Lubricant supply systems.
(free for use).

RVL Lubricant supply systems.
(free for use).

RVM Lubricant supply systems.
(free for use).
RVN Lubricant supply systems.
(free for use).
RVP Lubricant supply systems.
(free for use).
RVQ Lubricant supply systems.
(free for use).
RVR Lubricant supply systems.
(free for use).
RVS Lubricant supply systems.
(free for use).
RVT Lubricant supply systems.
(free for use).
RVU Lubricant supply systems.
(free for use).

RW Sealing fluid supply systems.

RWA Sealing fluid supply systems.
(free for use).
RWB Sealing fluid supply systems.
(free for use).
RWC Sealing fluid supply systems.
(free for use).
RWD Sealing fluid supply systems.
(free for use).
RWE Sealing fluid supply systems.
(free for use).
RWF Sealing fluid supply systems.
(free for use).
RWG Sealing fluid supply systems.
(free for use).
RWH Sealing fluid supply systems.
(free for use).
RWJ Sealing fluid supply systems.
(free for use).
RWK Sealing fluid supply systems.
(free for use).
RWL Sealing fluid supply systems.
(free for use).
RWM Sealing fluid supply systems.
(free for use).
RWN Sealing fluid supply systems.
(free for use).
RWP Sealing fluid supply systems.
(free for use).
RWQ Sealing fluid supply systems.
(free for use).
RWR Sealing fluid supply systems.
(free for use).
RWS Sealing fluid supply systems.
(free for use).
RWT Sealing fluid supply systems.
(free for use).
RWU Sealing fluid supply systems.
(free for use).

RX Fluid supply systems for control and protection equipment.

RXA Fluid supply systems for control and protection equipment.
(free for use).
RXB Fluid supply systems for control and protection equipment.
(free for use).
RXC Fluid supply systems for control and protection equipment.
(free for use).
RXD Fluid supply systems for control and protection equipment.
(free for use).
RXE Fluid supply systems for control and protection equipment.
(free for use).
RXF Fluid supply systems for control and protection equipment.
(free for use).
RXG Fluid supply systems for control and protection equipment.
(free for use).
RXH Fluid supply systems for control and protection equipment.
(free for use).
RXJ Fluid supply systems for control and protection equipment.
(free for use).
RXK Fluid supply systems for control and protection equipment.
(free for use).
RXL Fluid supply systems for control and protection equipment.
(free for use).
RXM Fluid supply systems for control and protection equipment.
(free for use).
RXN Fluid supply systems for control and protection equipment.
(free for use).
RXP Fluid supply systems for control and protection equipment.
(free for use).
RXQ Fluid supply systems for control and protection equipment.
(free for use).
RXR Fluid supply systems for control and protection equipment.
(free for use).

RXS **Fluid supply systems for control and protection equipment.**
(free for use).

RXT **Fluid supply systems for control and protection equipment.**
(free for use).

RXU **Fluid supply systems for control and protection equipment.**
(free for use).

RY Control and protection equipment.

RYA **Control and protection equipment.**
(free for use).

RYB **Control and protection equipment.**
(free for use).

RYC **Control and protection equipment.**
(free for use).

RYD **Control and protection equipment.**
(free for use).

RYE **Control and protection equipment.**
(free for use).

RYF **Control and protection equipment.**
(free for use).

RYG **Control and protection equipment.**
(free for use).

RYH **Control and protection equipment.**
(free for use).

RYJ **Control and protection equipment.**
(free for use).

RYK **Control and protection equipment.**
(free for use).

RYL **Control and protection equipment.**
(free for use).

RYM **Control and protection equipment.**
(free for use).

RYN **Control and protection equipment.**
(free for use).

RYP **Control and protection equipment.**
(free for use).

RYQ **Control and protection equipment.**
(free for use).

RYR **Control and protection equipment.**
(free for use).

RYS **Control and protection equipment.**
(free for use).

RYT **Control and protection equipment.**
(free for use).

RYU **Control and protection equipment.**
(free for use).

RZ Injection and proportioning systems.

RZA **Injection and proportioning systems.**
(free for use).

RZB **Injection and proportioning systems.**
(free for use).

RZC **Injection and proportioning systems.**
(free for use).

RZD **Injection and proportioning systems.**
(free for use).

RZE **Injection and proportioning systems.**
(free for use).

RZF **Injection and proportioning systems.**
(free for use).

RZG **Injection and proportioning systems.**
(free for use).

RZH **Injection and proportioning systems.**
(free for use).

RZJ **Injection and proportioning systems.**
(free for use).

RZK **Injection and proportioning systems.**
(free for use).

RZL **Injection and proportioning systems.**
(free for use).

RZM **Injection and proportioning systems.**
(free for use).

RZN **Injection and proportioning systems.**
(free for use).

RZP **Injection and proportioning systems.**
(free for use).

RZQ **Injection and proportioning systems.**
(free for use).

RZR **Injection and proportioning systems.**
(free for use).

RZS **Injection and proportioning systems.**
(free for use).

RZT **Injection and proportioning systems.**
(free for use).

RZU **Injection and proportioning systems.**
(free for use).

S

ANCILLARY SYSTEMS

SA Heating, ventilation, air-conditioning (HVAC) systems for conventional area.

SB Space heating systems.

SC Stationary compressed air supplies.

SD Cleaning system (see *FK* for decontamination systems).

SE Stationary welding gas systems.

SG Stationary fire protection systems.

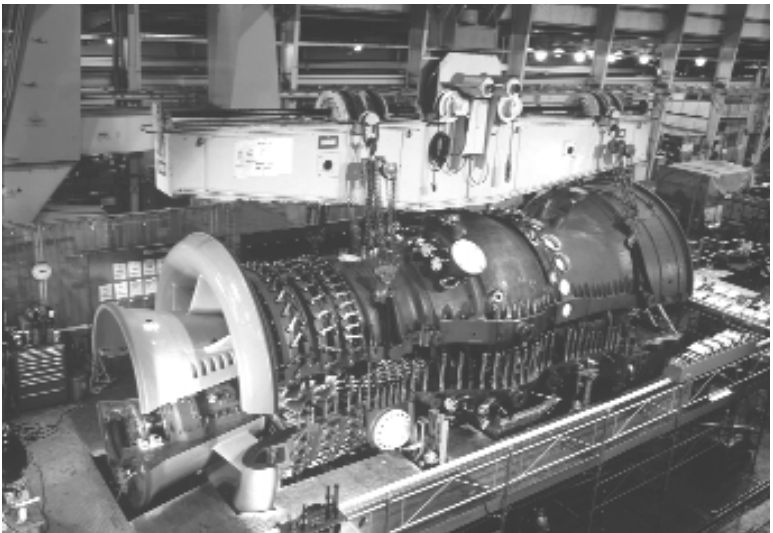
SH Waterway facilities.

SM Cranes, stationary hoists and conveying appliances.

SN Elevators.

SP Railway installations.

ST Workshop, stores, laboratory equipment and staff amenities.



SA Heating, ventilation, air-conditioning (HVAC) systems for conventional area.

- **SAA** Refrigeration plant (if not part of *QK*).
- **SAB** Air humidifying systems (if not part of *QM*).
- **SAC** Heating, ventilation, air-conditioning (HVAC) systems in structures for switch-gear.
- **SAD** Heating, ventilation, air-conditioning (HVAC) systems in structures for electro modules.
- **SAE** Heating, ventilation, air-conditioning (HVAC) systems in structures for conventional fuel supply and residue disposal.
- **SAF** Heating, ventilation, air-conditioning (HVAC) systems for chemical flue gas treatment.
- **SAG** Heating, ventilation, air-conditioning (HVAC) systems in structures for water supply and waste water disposal.
- **SAH** Heating, ventilation, air-conditioning (HVAC) systems in structures for conventional heat generation.
- **SAK** Heating, ventilation, air-conditioning (HVAC) systems for general service structures.
- **SAL** Heating, ventilation, air-conditioning (HVAC) systems in structures for steam- water cycle.
- **SAM** Heating, ventilation, air-conditioning (HVAC) systems in structures for main machine sets.
- **SAN** Heating, ventilation, air-conditioning (HVAC) systems in structures for process energy supply.
- **SAP** Heating, ventilation, air-conditioning (HVAC) systems in structures for circulating (cooling) water systems (e.g. circulating water intake).
- **SAQ** Heating, ventilation, air-conditioning (HVAC) systems in structures for circulating (cooling) water systems (e.g. circulating water pumps and outfall).
- **SAR** Heating, ventilation, air-conditioning (HVAC) systems in structures for circulating (cooling) water systems (e.g. recirculation cooling).
- **SAS** Heating, ventilation, air-conditioning (HVAC) systems in structures for ancillary systems.
- **SAT** Heating, ventilation, air-conditioning (HVAC) systems in structures for auxiliary systems.
- **SAU** Heating, ventilation, air-conditioning (HVAC) systems in general service structures: transport, traffic, fencing, gardens and other purposes.
- **SAV** Lubricant supply system.
- **SAX** Fluid supply system for control and protection equipment.
- **SAY** Control and protection equipment.

SB Space heating systems.

- **SBA** Central heating station.
- **SBC** Space heating systems in structures for switch-gear.
- **SBE** Space heating systems in structures for conventional fuel supply and residue disposal.
- **SBG** Space heating systems in structues for water supply and waste water disposal.
- **SBH** Space heating systems in structures for conventional heat generation.
- **SBL** Space heating systems in structures for steam-water cycle.
- **SBM** Space heating systems in structures for main machine sets.
- **SBN** Space heating system in structures for process energy supply systems.
- **SBP** Space heating systems in structures for circulating (cooling) water systems (e.g. circulating water intake).
- **SBQ** Space heating systems in structures for circulating (cooling) water systems (e.g. circulating water pumps and outfall).
- **SBS** Space heating systems in structures for ancillary systems.
- **SBT** Space heating systems for auxiliary systems.
  (free for use e.g. building specific).
- **SBU** Space heating systems in general service structures: transport, traffic, fencing, gardens and other purposes.
- **SBX** Fluid supply system for control and protection equipment.
- **SBY** Control and protection equipment.

SC Stationary compressed air supplies.

- **SCA Compressed air generation system.**
- **SCB Compressed air distribution system.**
- **SCC Stationary compressed air supplies.** (free for use).
- **SCD Stationary compressed air supplies.** (free for use).
- **SCE Stationary compressed air supplies.** (free for use).
- **SCF Stationary compressed air supplies.** (free for use).
- **SCG Stationary compressed air supplies.** (free for use).
- **SCH Stationary compressed air supplies.** (free for use).
- **SCJ Stationary compressed air supplies.** (free for use).
- **SCK Stationary compressed air supplies.** (free for use).
- **SCL Stationary compressed air supplies.** (free for use).
- **SCM Stationary compressed air supplies.** (free for use).
- **SCN Stationary compressed air supplies.** (free for use).
- **SCP Stationary compressed air supplies in structures for circulating (cooling) water systems (e.g. circulating water intake).**
- **SCQ Stationary compressed air supplies in structures for circulating (cooling) water systems (e.g. circulating water pumps and outfall).**
- **SCR Stationary compressed air supplies.** (free for use).
- **SCS Stationary compressed air supplies in structures for ancillary systems.**
- **SCT Stationary compressed air supplies for auxiliary systems.** (free for use).
- **SCU Stationary compressed air supplies: transport, traffic, fencing, gardens and other purposes.**
- **SCV Lubricant supply system.**
- **SCX Fluid supply system for control and protection equipment.**
- **SCY Control and protection equipment.**

SD Cleaning system (see *FK* for decontamination systems).

- **SDA Cleaning system (see *FK* for decontamination systems).** (free for use).
- **SDB Cleaning system (see *FK* for decontamination systems).** (free for use).
- **SDC Cleaning system (see *FK* for decontamination systems).** (free for use).
- **SDD Cleaning system (see *FK* for decontamination systems).** (free for use).
- **SDE Cleaning system (see *FK* for decontamination systems).** (free for use).
- **SDF Cleaning system (see *FK* for decontamination systems).** (free for use).
- **SDG Cleaning system (see *FK* for decontamination systems).** (free for use).
- **SDH Cleaning system (see *FK* for decontamination systems).** (free for use).
- **SDJ Cleaning system (see *FK* for decontamination systems).** (free for use).
- **SDK Cleaning system (see *FK* for decontamination systems).** (free for use).
- **SDL Cleaning system (see *FK* for decontamination systems).** (free for use).
- **SDM Cleaning system (see *FK* for decontamination systems).** (free for use).
- **SDN Cleaning system (see *FK* for decontamination systems).** (free for use).
- **SDP Cleaning system (see *FK* for decontamination systems).** (free for use).
- **SDQ Cleaning system (see *FK* for decontamination systems).** (free for use).
- **SDR Cleaning system (see *FK* for decontamination systems).** (free for use).
- **SDS Cleaning system (see *FK* for decontamination systems).** (free for use).
- **SDT Cleaning system (see *FK* for decontamination systems).** (free for use).
- **SDU Cleaning system (see *FK* for decontamination systems).** (free for use).

SDV **Lubricant supply system.**
(free for use).
SDX **Fluid supply system for control and protection equipment.**
(free for use).
SDY **Control and protection equipment. (free for use).**

SE **Stationary welding gas systems.**

SEA **Stationary welding gas systems.**
(free for use).
SEB **Stationary welding gas systems.**
(free for use).
SEC **Stationary welding gas systems.**
(free for use).
SED **Stationary welding gas systems.**
(free for use).
SEE **Stationary welding gas systems.**
(free for use).
SEF **Stationary welding gas systems.**
(free for use).
SEG **Stationary welding gas systems.**
(free for use).
SEH **Stationary welding gas systems.**
(free for use).
SEJ **Stationary welding gas systems.**
(free for use).
SEK **Stationary welding gas systems.**
(free for use).
SEL **Stationary welding gas systems.**
(free for use).
SEM **Stationary welding gas systems.**
(free for use).
SEN **Stationary welding gas systems.**
(free for use).
SEP **Stationary welding gas systems.**
(free for use).
SEQ **Stationary welding gas systems.**
(free for use).
SER **Stationary welding gas systems.**
(free for use).
SES **Stationary welding gas systems.**
(free for use).
SET **Stationary welding gas systems.**
(free for use).
SEU **Stationary welding gas systems.**
(free for use).
SFT **Heating and fuel gas systems.**
(free for use).

SG **Stationary fire protection systems.**

SGA **Fire water system, conventional area.**
SGC **Spray deluge systems, conventional area.**
SGE **Sprinkler systems.**
SGF **Foam fire-fighting systems.**
SGG **Tank roof, tank shell cooling systems.**
SGJ **CO2 fire-fighting systems.**
SGK **Halon fire-fighting systems.**
SGL **Powder fire-fighting systems.**
SGV **Lubricant supply system.**
SGX **Fluid supply system for control and protection equipment.**
SGY **Control and protection equipment.**

SH **Waterway facilities.**

SHA **Intake system (upper pound).**
to excl. lock chamber gate (upstream).
SHB **Lock chamber incl. chamber filling and emptying system.**
SHC **Lock chamber gate (upstream).**
SHD **Lock chamber gate (intermediate).**
SHE **Lock chamber gate (downstream).**
SHF **Discharge system (lower pound).**
from excl. lock chamber gate (downstream).
SHJ **Anti-icing system.**
SHK **Ship impact system.**
SHL **Leakage drain system.**
SHM **Draining system.**
SHT **Fish ladder.**
SHU **Raft canal.**
SHV **Lubricant supply system.**
SHW **Sealing fluid supply system.**
SHX **Fluid supply system for control and protection equipment.**
SHY **Control and protection equipment.**

SM **Cranes, stationary hoists and conveying appliances.**

SMA **Central equipment.**
SMC **Cranes, stationary hoists and conveying appliances in structures for switch-gear.**
SME **Cranes, stationary hoists and conveying appliances in structures for conventional fuel supply and residues discharge.**

SMF Cranes, stationary hoists and conveying appliances in structures for flue gas chemical treatment.
SMG Cranes, stationary hoists and conveying appliances in structures for water supply and waste water disposal.
SMH Cranes, stationary hoists and conveying appliances in structures for conventional heat generation.
SMK Cranes, stationary hoists and conveying appliances in general service structures.
(free for use e.g. building specific).
SML Cranes, stationary hoists and conveying appliances in structures for steam-water cycle.
SMM Cranes, stationary hoists and conveying appliances in structures for main machine sets.
SMN Cranes, stationary hoists and conveying appliances in structures for process energy supply for external users.
SMP Cranes, stationary hoists and conveying appliances in structures for circulating (cooling) water systems (e.g. circulating water intake).
SMQ Cranes, stationary hoists and conveying appliances in structures for auxiliary systems.
SMS Cranes, stationary hoists and conveying appliances in structures for ancillary systems.
SMT Cranes, stationary hoists and conveying appliances.
(free for use e.g. building specific).
SMU Cranes, stationary hoists and conveying appliances in general service structures.
SMX Fluid supply system for control and protection equipment.
SMY Control and protection equipment.

SN Elevators.

SNC Elevators in structures for switch-gear.
SNE Elevators in structures for conventional fuel supply and residue disposal.
SNG Elevators in structures for water supply and waste water disposal.
SNH Elevators.
(free for use e.g. building specific).
SNL Elevators in structures for steam-water cycle.
SNM Elevators in structures for main machine sets.
SNN Elevators in structures for process energy supply for external users.
SNP Elevators in structures for circulating (cooling) water systems (e.g. circulating water intake).
SNQ Elevators in structures for auxiliary systems.
SNS Elevators in structures for ancillary systems.
SNT Elevators.(free for use e.g. building specific).
SNU Elevators in general service structures.
SNY Control and protection equipment.

SP Railway installations.

SPA Railway installations.
(free for use).
SPB Railway installations.
(free for use).
SPC Railway installations.
(free for use).
SPD Railway installations.
(free for use).
SPT Railway installations.
(free for use).
SQT Road installations.
(free for use).

ST Workshop, stores, laboratory equipment and staff amenities.

STA Workshop equipment.
STC Maintenance areas.
STE Stores and filling station equipment.
STG Laboratory equipment.
STP Staff amenities.
STY Control and protection equipment.

U

STRUCTURES AND BUILDINGS FOR COMBINED CYCLE POWER PLANTS

UA Structures for grid and distribution systems.

UB Structures for power transmission and auxiliary power supply.

UC Structures for instrumentation and control (I&C).

UD General items.

UE Structures for conventional fuel supply and residues disposal.

UG Structures for water supply and disposal.

UH Structures for conventional heat generation.

UL Structures for steam-, water-, gas cycles.

UM Structures for main machine sets.

UN Structures for process energy / media supply for external users.

UP Structures for cooling water systems (water intake and cleaning).

UQ Structures for cooling water systems (forwarding and outfall).

UR Structures for circulating (cooling) water systems (recirculation).

US Structures for ancillary systems.

UT Structures for auxiliary systems.

UU Shaft structures.

UV Structures for chemical flue gas treatment incl. residues removal (for *HR*.*HS*.*HT*).

UX Structures for external systems (power plant-specific).

UY General service structures.

UZ Structures for transport, traffic, fencing, gardens and other purposes.

STRUCTURES AND BUILDINGS FOR CCPP

UA Structures for grid and distribution systems.

UAA Structure for switchyard area.
Steel cables, GIS or rigid bus - support structures.

UAB Power systems switching station building.
GIS or rigid bus - support structures.

UAC Power system switching station control building.

UAE Auxiliary equipment building.
Auxiliary equipment, compressed air station etc.

UAF Portal frame (step-up transformer to switchyard).
Steel cables, GIS or rigid bus - support structures.

UAG Civil works for switchyard transformer.
Buildings, bays.

UAH Foundations for supports and equipment outside UAA.

UAJ Structure for transformer rail system in *UA* area.
Foundation, excavation work.

UAM High voltage outgoing portal frame / tower.

UAT Roads and areas in the switchyard.
Various types, constructions.

UAU Ground grid in *UA* area.
Various mesh sizes.

UAV Switchyard fencing and gates.

UAW Structure for transformer rail system.
Various types, constructions.

UAX Special structure (plant-specific).

UAY Pipe & cable bridge structure for main and auxiliary distribution *UA* area.
Bridge for HV feeder (step-up transformer to switchyard).
Bridge for unit supply and control cables.

UAZ Pipe & cable ducting structure for main and auxiliary distribution *UA* area.
Ducting for HV feeder (step-up transformer to switchyard).
Ducting for unit supply and control cables.

UB Structures for power transmission and auxiliary power supply.

UBA Central electrical and control building.
module foundation also used for combined electrical / control / administration building.

UBB GT, ST, GT/ST electrical building / module.
module foundation
Container / building GT or ST type.

UBC Structure for back-up transformers.
Foundations / pit / building.

UBD Structure for station service transformer.
Foundations / pit / building.

UBE Structure for unit service transformer.
GT, ST, GT/ST unit; foundations / pit / building.

UBF Structure for transformer area.
Foundation / pit / building.

UBG Structure for start-up transformer.
Foundations / pit / building.

UBH Structure for common oil collecting pit.
Foundation / pit.

UBJ Structure for transformer rail system.
Foundation / excavation work.

UBK Transformer assembly building.
Shelter / building.

UBL Structure for busbars.
GT, ST, GT/ST unit; foundations, steel construction.

UBM Structure for transformer cooling system.
GT, ST, GT/ST unit; foundations / pit / building.

UBN Structure for standby / emergency / black start generator set.
(Diesel / turbine).

UBP Structure for blackstart generating set.
Diesel / Turbine.

UBQ Structure for emergency / black start generating set fuel supply.
Diesel / gas / kerosene etc.

UBS Structure for MV/LV auxiliary transformer.
Foundation / shelter / building.

UBT Structure for LV/LV auxiliary transformer.
Foundation / shelter / building.

UBU Ground grid outside *UA* area.
UBW Ground grid outside UA area.
Various mesh sizes.
UBX Special structure (plant specific).
UBY Power cable bridge structure for main and auxiliary distribution ROP area.
UBZ Power cable ducting structure for main and auxiliary distribution ROP area.

UC Structures for instrumentation and control (I&C).

UCA Unit control building.
UCB Central control building.
UCC Local control modules.
GT local control module - container / room / annex.
ST local control module - container.
UCE Local (decentralized) control buildings. B
Building / container / shelter.
UCG Structure for water supply / waste water disposal control system.
Building / container / shelter.
UCH Structure for HRSG control system.
Building / container / shelter.
UCL Structure for local metering equipment - steam water cycle.
Building / container / shelter.
UCM Structure for conrol system of air cooled condenser.
Building / container / shelter.
UCN Structure for metering & control system of process steam / process hot water.
Building / container / shelter.
UCP Structure for cooling water measuring equipment.
Buidling / container / shelter.
UCR Structure for cooling tower control system.
Building / container / shelter.
UCV Structure for sea water desalination plant control system.
Building / container / shelter.
UCX Special structure (plant specific).
UCY Control cable bridge structure for main and auxiliary distribution ROP area.
UCZ Control cable ducting structure for main and auxiliary distribution ROP area.

UD General items.

UDA General items (mobilisation and demobilisation).
UDD Provisional sum (PI/ROP).
UDE Site dewatering (PI/ROP).
UDF Site survey (PI/ROP).
UDG Soil improvement (PI/ROP).
UDH Piling (PI/ROP).
UDK Soil investigation (PI/ROP).
UDL Site clearing and tree cutting (PI/ROP).
UDM Demolition work (PI/ROP).
UDN Structure for modification, repair and renovation of existing structures (PI/ROP).

UE Structures for conventional fuel supply and residues disposal.

UEG Structures for coal gasification / liquefaction.
UEH Structures for unloading and reception of liquid fuels.
Oil discharge station - lorry / train / ship discharge tank pit, Building, shelter.
UEJ Structures for storage of liquid fuels.
Tank foundation / containment - diesel oil / dirty oil / heavy oil / naphta / kerosene etc.
UEK Structure for oil separator at oil unloading station and storage.
UEL Structure for oil forwarding pump station.
Building / shelter.
UEM Structure for treatment and handling of liquid fuels.
Oil conditioning plant, oil additive supply and store.
UEN NG/LG/BFG - gas terminal and treatment station.
Gas terminal (metering, control etc.), discharge station, pressure reduction station gas conditioning plant (filters, condensers, separators etc.), booster plant incl. cooling.
UEP LG/BFG - condensate collection tank (residue disposal).
Foundations / shelter / building for gas condensate collection tank.
UEQ LG (liquid gas) treatment plant.
incl. heating / cooling medium system foundation / shelter / building.

UER Structures for forwarding of gaseous fuels.
Foundations / supports for gas pipeline.

UES Structure for oil sludge disposal.
Building / shelter / pit.

UEW Structure for combustion residue-shandling.
Foundation / shelter / building.

UEX Special structure (plant specific).

UEY Pipe & cable bridge structure for fuel distribution ROP area.

UEZ Pipe & cable ducting structure for fuel distribution ROP area.

UG Structures for water supply and disposal.

UGA Structures for raw water supply, cleaning and treatment.
Raw / city / ground water pumping station incl. mech. cleaning and transport structures.

UGB Structure for raw water system.
Structure for storage tank / pond / pumping station.

UGC Structure for raw and de-mineralised water storage and forwarding.
Structure for storage tanks / ponds / pumping stations.

UGD Structure for water demineralization system.
Structures for treatment plant, water storage tank / pond / pumping station incl. dosing, electrical and control systems.

UGE Structure for neutralization system incl. dosing plant.
Structures for neutralization tank / pit / dosing plant.

UGF Structure for fire distinguishing water storage and forwarding.
Structures for storage tank / pond / pumping station.

UGG Potable water treatment plant, storage incl. pumping station.
Structures for storage tank / pond / pumping station.

UGH Structures for rainwater collecting and treatment system.
Structures for surface water catchment pond incl. sand trap and pumping station sand and residue disposal, rain and fire fighting retention pond.

UGJ Structure for sand trap / settling pond.

UGK Structures for biological and chemical raw water treatment plant.
Structure for settling pond incl. pumping station, dosing and outlet control equipment used in domestic water treatment.

UGL Flocculator structure.
Structure for flocculation plant incl. inlet and outlet channels used in process drains precleaning plant and sludge disposal / domestic waste water treatment.

UGM Structures for filters, dosing, electrical and control systems.
used in process drains precleaning plant and sludge disposal / domestic waste water treatment.

UGN Structures for clean water storage incl. pumping station.
used in process drains precleaning / treatment plant and sludge disposal / domestic waste water treatment.

UGP Structure for sludge treatment system.
incl. inlet and outlet channels.

UGQ Sludge dewatering building.
Structures for sludge press incl. auxiliaries / waste water collection and return ponds.

UGR Sludge storage structure.
used in process drains precleaning plant and sludge disposal / domestic waste water treatment.

UGS Structure for operational / chemical waste water treatment incl. pumping station.
collection pond incl. pumping station, cooler etc.
structures for (chemical) treatment plant and residue storage / disposal.

UGT Calming pond incl. outlet regulation.
used in process drains precleaning plant and sludge disposal / domestic waste water and rainwater teratment / disposal.

UGU Oil separator pit incl. oil sludge collection.
used in process drains precleaning plant and sludge disposal / domestic waste water and rainwater treatment / disposal.

UGV Structure for sanitary waste water treatment incl. pumping station.
Structure for septic tank incl. pumping station / BioGest plant / disposal.

UGW Storm water evaporation pond.
Sewage collecting pond and treatment incl. sludge pit, clean water return channels, pure water return / inlet structures.

UGX Special structure (plant specific).

UGY Pipe bridge structure for water distribution / waste water collecting - ROP area.

UGZ Pipe & cable ducting structure for water distribution / waste water collecting - ROP area.
Potable water system.
Demineralized water system.
Surface / storm water system.
Sanitary water drainage.
Oily water drainage.
Boiler blowdown drainage.

UH Structures for conventional heat generation.

UHA Structure for HRSG / HRSG housing.
Foundation / pit / shelter / building.

UHB Foundations for HRSG auxiliaries.
Foundation / pit / shelter / building.

UHG Structure for exhaust gas ducts / housing (GT to HRSG).
Foundation / pit / shelter / building.
(if in HRSG scope of supply).

UHH Structure for bypass stack / housing.
Foundation / pit / shelter / building.
(if in HRSG scope of supply).

UHL Structure for boiler compressed air supply.
Foundation / shelter / building.

UHM Structure for exhaust gas ducts (HRSG to stack).
Foundation / pit / shelter / building.

UHN Structure for exhaust gas stack (free standing).
Foundation / pit.

UHQ Structure for flue gas treatment system (mechanical).
Foundation / pit / shelter / building.

UHR Structure for flue gas treatment system (catalytic process).
Foundation / pit / shelter / building.

UHS Structure for flue gas treatment system (catalytic process).
Foundation / pit / shelter / building.

UHT Structure for emission monitoring station.
CEMS container.

UHW Structures for HRSG blowdown equipment.
Foundation / shelter / building.

UHX Structure for HRSG enclosure and housing.
Foundation / shelter / building.

UHY Bridge structure.

UHZ Ducting structures.

UL Structures for steam-, water-, gas cycles.

ULA Structure for feedwater system.
Foundation / shelter / building for feedwater tank / pumping system.

ULC Structure for condensate system.
Fondation / shelter / building for condenser, condensate pumps, ADV, clean condensate collecting tank etc.

ULD Structure for condensate polishing plant.
Foundation / shelter / building.

ULF Structure for exhaust steam pipes (steam turbine - air cooled condenser).
Foundation / shelter / building.

ULG Structure for ACC (air cooled condenser) area.
Foundation / support / shelter / building.

ULH Structure for air cooled condenser auxiliaries.
Foundation / shelter / building.

ULJ Structure for atmospheric drains vessel (ADV) (*LCM*).
Foundation / shelter / building.

ULK Structure for clean drains pumps (*LCM*).
Foundation / shelter / building.

ULS Structure for auxiliary condensate collecting tank (*LCN*).
Foundation / shelter / building.

ULT Structure for auxiliary condensate pumps (*LCN*).
Foundation / shelter / building.

ULV Structure for chemical dosing system (*LFN*).
Foundation / shelter / building.

ULW Structure for sampling system (*QUL*).
Foundation / shelter / building.

ULX Special structures (plant specific).

ULY Bridge structures.

ULZ Pipe ditch & cable duct structure for W/S cycle - outside power island.

UM Structures for main machine sets.

UMA Steam turbine building / ST outdoor area incl. crane support structure.
Table / floor construction, foundations for crane rails in ST outdoor area, foundations for ST auxiliaries.
Complete ST foundations: *MPA*.

UMB Gas turbine building / GT outdoor area incl. crane support structure.
Table / floor construction, foundations for crane rails in GT outdoor area, foundations for GT auxiliaries.
Complete GT foundations: *MPA*.

UMC GT/ST building and outdoor area incl. crane support structure (single shaft).
Table / floor construction, foundations for crane rails in GT / ST outdoor area, foundations for GT / ST auxiliaries.
Complete GT / ST foundations: *MPA*.

UMD Common GT/ST building and outdoor area incl. crane support structure(multi shaft).
Table / floor construction, foundations for crane rails in GT / ST outdoor area, foundations for GT / ST auxiliaries.
Complete GT / ST foundations: *MPA*.

UMF Structure for exhaust gas duct / housing (GT to HRSG).
Foundation / shelter / building.
(if in GT scope of supply).

UMH Structure for bypass stack / housing.
Foundation / shelter / building (if in GT scope of supply).

UMN Structure for annex to *UMA*, *UMC* or *UMD*.
(only if annex to UMA, UMC or UMD).

UMP Annex for circulating (main cooling) and service (secondary cooling) water pipes.
(structures for main and secondary cooling water pipes in *UMA*, *UMC*, *UMD*).

UMS Air storage structure (GT combustion air reservoir plant).
cavern / building.

UMT Annex for components of blast furnace gas supply.
(only if annex to *UMB*, *UMC* or *UMD*).

UMV Connecting structures between main machine set halls.
(subways, gangways, covered paths etc.).

UMX Special structure (plant specific).

UMY Pipe bridge & cable rack structure for main machine set systems ROP area.
(not *ULY*, *UNY*).

UMZ Pipe ditch & cable duct structure for maim machine set system - ROP area.

UN Structures for process energy / media supply for external users.

UNA Structure for process steam station.
e.g. for metering and control station, distribution; foundation / shelter / building.

UNB Structure for process steam condensate return.
e.g. storage tank, forwarding station; foundation / shelter / building.

UNC Structure / annex for hot water pumping station.
(e.g. for district heating); foundation / shelter / building.

UND Structure / annex for process heat transfer.
(e.g. heater / heater-condenser for hot water processing); foundation / shelter / building.

UNE Structure / foundation for hot water pond.
Foundation / shelter / building.

UNF Containment for hot water pond.
Fundation / shelter / building.

UNG Structures for chilled water supply.

UNX Special structure (plant specific).

UNY Pipe bridge & cable rack structure for process steam/hot water - ROP area (not *ULY*).

UNZ Pipe ditch & cable duct structure for process steam/hot water ROP area (not *ULY*).

UP Structures for cooling water systems (water intake and cleaning).

UPA Circulating (main cooling) water intake structure.
(intake head, shaft etc.); underwater structures.

UPB Service (secondary cooling) water intake structure.
(intake head, shaft etc.); underwater structures.

UPC Circulating (main cooling) water intake structure.
channel / pipe.

UPD Service (secondary cooling) water intake structure.
channel / pipe.

UPE Circulating (main cooling) water source.
Intake underwater and shore / bank structures.

UPF Service (secondary cooling) water source.
Intake underwater and shore / bank structures.

UPG Shore structure and embankment.
Shore structure and bank works.

UPH Circulating (main cooling) water treatment structures.
for mechanical cleaning,
chemical dosing equipment,
settling pond for main cooling water.

UPJ Service (secondary cooling) water treatment structures.
for mechanical cleaning,
chemical dosing equipment,
settling pond for secondary cooling water.

UPN Circulating (main cooling) water feed inlet culvert.
from mechanical cleaning (*UPE*) to pump house (*UQA*).

UPP Service (secondary cooling) water feed culvert.
from mechanical cleaning (*UPF*) to pump house (*UQB*).

UPQ Biocide treatment building.
Annex building / structure for chlorine dosing plant incl. storage.

UPR Structure for electro-chlorination plant.
Foundation / shelter / building.

UPS Flushing water system.
channel from mechanical cleaning to return.

UPT Screen wash water cleaning structure.

UPU Building, space / pit for dirt container.
Foundation / shelter / building.

UPV Structure for waste storage and disposal.
Foundation / pit.

UPW Structure. storage space for insulating closure slabs.
Foundation.

UPX Special structure (plant specific).

UPY Cooling water pipe bridge - between pumphouse and turbine building.

UPZ Cooling water pipe/duct/channel - between pumphouse and turbine building.

UQ Structures for cooling water systems (forwarding and outfall).

UQA Circulating (main cooling) water pump station (direct cooling).
incl. mech. cleaning structures, direct cooling
Underwater / pit / shelter / building.

UQB Service (secondary cooling) water pump station.
incl. mech. cleaning structures, direct cooling
Underwater / pit / shelter / building.

UQC Circulating (main cooling) water pump station.
excl. mechanical cleaning structure, cooling tower
Underwater / pit / shelter / building.

UQD Service (secondary cooling) water pump station.
excl. mechanical cleaning structure, cooling tower
Underwater / pit / shelter / building.

UQG Cooling water overflow structure, surge tank / chamber.
Underwater / pit.

UQH Screen wash water discharge culvert / channel.
Underwater / channel.

UQJ Cooling water seal pit, aeration, incl. outfall.
Underwater / pit.

UQK Cooling water de-aeration structure.
Underwater / pit.

UQL Service (secondary cooling) water surge pond.
Underwater / pit.

UQM Service (secondary cooling) water collecting pond.
Underwater / pit.

UQN Circulating (main cooling) water return channel.
Underwater / channel.

UQP Service (secondary cooling) water return channel.
Underwater / channel.

UQQ Circulating (main cooling) water outfall / return structure.
Underwater / pit.

UQR Service (secondary cooling) water outfall / return structure.
Underwater / pit.

UQS Circulating (main cooling) water discharge structure.
Undervater.

UQT Service (secondary cooling) water discharge culvert.
Undervater.

UQU Circulating (main cooling) water spillway structure incl. aeration structure.
Underwater / bank / shore structure.

UQV Structure for artifical circulating (main cooling) water aeration.
Underwater / pit.

UQW Routing structure for circulating (main cooling) water discharge.
Underwater / bank / shore structure.

UQX Special structure (plant specific).

UQY Main / secondary cooling water return/discharge pipe bridge.

UQZ Ducting structure.

UR Structures for circulating (cooling) water systems (recirculation).

URA Cooling tower structure for circulating (main cooling) water.
Foundation / pit / basin / structure.

URB Cooling tower structure for service (secondary cooling) water.
Foundation / pit / basin / structure.

URG Cooling tower connecting structure.
Foundation / channel.

URH Cooling tower outlet structure.
Foundation / pit / channel.

URJ Cooling tower outfall culvert.
Foundation / channel.

URK Cooling tower return structure.
Foundation / pit / channel.

URL Cooling tower return culvert.
Foundation / pit / channel.

URM Circulating (main cooling) water distribution structure.
Foundation / pit / channel.

URN Cooling tower bypass structure.
Foundation / pit / channel.

URP Cooling tower blowdown structure.
Foundation / pit / channel.

URQ Cooling tower blowdown culvert.
Foundation / pit / channel.

URR Structure for closed cooling water system.
e.g. foundation / support for air blast intercoolers.

URX Special structure (plant specific).

URY Bridge structures.

URZ Ducting structure.

US Structures for ancillary systems.

USA Structure for central HVAC system and compressed air plant.
Foundation / shelter / building.

USB Structure for space heating systems.
e.g. boiler house / foundations / shelters for space heating units etc.

USC Structure for stationary compressed air supply system (not *UTF*).
Foundation / shelter / building.

USG Fire extinguishing water pumping station.
Foundation / shelter / building.

USH Structure for waterway facilities.
Underwater / pit / shore- / bank-structure / foundation / shelter etc.

USS Combined workshop and storage building.
Shelter / building.

UST Workshop building.
Shelter / building.

USU Storage building, covered storage area, warehouse.
Shelter / building.

USV Laboratory building.
Building.

USX Special structure.

USY Bridge structure.

USZ Ducting structure.

UT Structures for auxiliary systems.

UTA Common / central structure for auxiliary systems (process-related).
Foundation / shelter / building.

UTB Structure for central water chilling plant.
Foundation / shelter / building.

UTF Structure for central compressed and control air supply (*QE*, *QF*).
Foundation / shelter / building.

UTG Structure for central gas supply (not fuel gas).
Foundation / shelter / building.
e.g. hydrogen / nitrogen bottle / tank stored.

UTH Auxiliary steam generator building.
Foundation / shelter / building.

UTJ Structure for auxiliary steam generator stack (not *UHN*).
Foundations.

UTM Structures for hydrogen production plant.
Foundation / shelter / building.

UTS Structure for chemicals storage.
Foundation / pit / shelter / building.
UTT Containment in the chemicals unloading area.
Foundation / pit / shelter / building.
UTX Special structure.
UTY Bridge structure.
UTZ Ducting structure.

UU Shaft structures.

UUG Deep well.
Shaft / pit.
UUX Special structure.
UUY Bridge structure.
UUZ Ducting structure.

UV Structures for chemical flue gas treatment incl. residues removal (for *HR*.*HS*.*HT*).

UVE Structure for ammonia unloading and storage.
Foundation / shelter / building.
UVM Structure for catalyst element storage and handling.
Shelter / building.
UVX Special structure (plant specific).
UVY Bridge structure.
UVZ Ducting structure.

UX Structures for external systems (power plant-specific).

UXA Structure for seawater desalination plant (in general).
Foundation / shelter / building.
UXB Structures for brine storage and conditioning system.
incl. blowdown pit and pumping station.
UXC Structure for seawater desalination plant auxiliaries.
Foundation / shelter / building.
UXD Structure for storage and forwarding of desalinated sea water.
Foundation / pit / shelter / building.
UXE Structure for desalinated seawater storage tanks.
Foundation / pit.
UXF Structure for desalinated seawater pump station.
Foundation / shelter / building.
UXG Cathodic protection (PI).
Foundation / shelter / building.
UXH Grounding (PI), (ROP).
Foundation / shelter / building.
UXP Structure for seawater supply.
Seawater intake head channel / pipe, structure and embankment, supply channel from mechanical cleaning.
UXQ Structure for seawater cleaning and forwarding.
Mechanical cleaning and chemical dosing plant. structures for chlorination plant, pump station.
UXX Special structure for bridge and duct (ROP).
eg. Structure for bridge and duct (PI), (ROP).
Foundation / shelter / building.
UXY Bridge structure.
UXZ Ducting structure.

UY General service structures.

UYA Office and staff amenities building.
Building.
UYB Staff amenities building.
Building.
UYC Administration building.
Building.
UYD Canteen.
Building.
UYE Gate house.
Building.
UYF Security gate house, guard tower.
Building.
UYG Information center.
Building.
UYH Training facilities.
Building.
UYJ Medical center.
Building.
UYN Railway engine shed.
Foundation / shelter / building.
UYP Fire station.
Foundation / shelter / building.
UYQ Garage.
Foundation / shelter / building.
UYR Automobile workshop.
Vehicle repair shop; Foundation / shelter / building.
UYS Petrol station.
Foundation / shelter / building.
UYX Special structure (plant specific).
UYY Bridge structures.
UYZ Ducting structures.

UZ Structures for transport, traffic, fencing, gardens and other purposes.

UZA Structure for roads, parking and fences (infrastructure).
Road construction, parking, fences, hard standing area.

UZC Open areas and yards (general).
e.g. helicopter landing area, deposit area, storage area, scrap storage area.

UZD Parking areas, incl. associated structures.
Road construction / shelter.

UZE Railway structure incl. acces railway and internal rail system.
Track construction.

UZF Lifting gear structure.
Track construction / foundation.

UZJ Fencing and gates.
Foundation.

UZK Structure for landscaping, gardening and outdoor work.
Green areas / landscaping / fountains etc.

UZL Noise abatement structures.

UZM Protective structures against external impact.
e.g. security walls etc.

UZN Structure for shore protection and jetty.

UZP Structure for bank / shoreline stabilization.
e.g. fender wall etc.

UZQ Structure for river regulation.
Hydraulic engineering.

UZR Jetty, quay.
Hydraulic engineering.

UZS Breakwater.
Hydraulic engineering.

UZT Open land, building lots, site owner rights
Building site preparation, power plant site, recreation area, meteo station etc.

UZU Site security structure.
Structure for site stabilization / slope protection.

UZV Site preparation (PI/ROP).
Site surveying, soil investigation, site dewatering structures, soil improvement, piling.

UZW Structure for independent buildings and residential area.
Building.

UZX Special structures (plant specific).

UZY Bridge structures.

UZZ Ducting structures.

X

HEAVY MACHINERY (NOT MAIN MACHINE SETS)

XA Steam turbine plant.

XB Gas turbine plant.

XE Hydraulic turbine plant.

XJ Diesel engine plant.

XK Generator plant.

XL Electro-motive plant (incl. motor generator).

XP Common installations for heavy machinery.

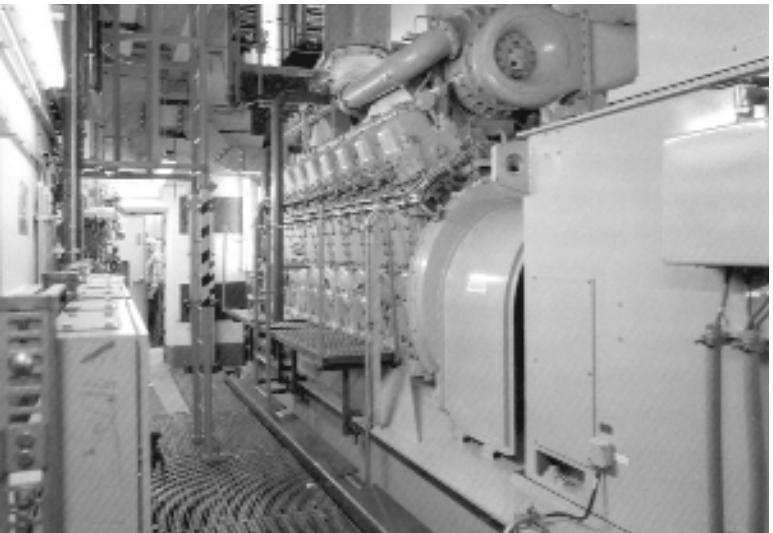
XR Gas engine plant.

XV Lubricant supply system.

XW Sealing fluid supply system.

XX Fluid supply system for control and protection equipment.

XY Control and protection equipment.



XA Steam turbine plant.

XAA HP turbine.
from incl. steam admission (main stop valve) or combined main stop and control valve
to incl. automatic/non-automatic extraction and exhaust nozzles and
to incl. the interfaces with other turbine internal systems.

XAB IP turbine.
from incl. crossover line, incl. control element or
from incl. intercept valve
to incl. automatic/non-automatic extraction and exhaust nozzles and
to incl. the interfaces with other turbine internal systems.

XAC LP turbine.
from incl. crossover line, incl. control element or
from incl. intercept valve or steam inlet nozzle (in reheat system without intercept valves)
to incl. automatic/non-automatic extraction and exhaust nozzles and.
to incl. the interfaces with other turbine internal systems.

XAD Bearings.

XAG Condensing system.
from incl. condenser neck or inlet nozzle
to incl. condenser outlet nozzle, incl. connected flash tanks, incl. instrumentation equipment associated with condenser.

XAH Motive water system (if separate from *XAJ*).
from excl. outlet of other system
to excl. water-operated air ejector inlet.

XAJ Air removal system.
from excl. condenser outlet
to excl. atmosphere.

XAK Transmission gear between prime mover and driven machine, incl. turning gear.

XAL Drain and vent systems.
from incl. collector point or
from incl. final drain
to excl. discharge into other system.

XAM Leak-off steam system.
from excl. branch from seal leak-off
to excl. discharge into other system.

XAN Turbine bypass station, incl. desuperheating spray system.
from incl. bypass valve and
from incl. desuperheating spray valve
to incl. steam inlet to condenser.

XAV Lubricant supply system.
from incl. dedicated lubricant tank or common lubricant and control fluid tank or
from excl. branch off lubricant fluid supply system
to excl. user and
from excl. user.

XAW Sealing, heating and cooling steam system.
from excl. branch
to excl. casing nozzle of steam user and leak-off
to excl. condenser or
to incl. gland steam condenser or
to excl. heating/cooling steam user.

XAX Non-electric control and protection equipment, incl. fluid supply system.

XAY Electrical control and protection equipment.

XB Gas turbine plant.

XBA Turbine, compressor rotor with common casing.
from incl. compressor inlet
to incl. compressor outlet
from incl. turbine inlet
to incl. turbine outlet, incl. exhaust gas diffuser.

XBB Turbine casing and rotor.
from incl. turbine inlet
to incl. turbine outlet, incl. exhaust gas diffuser.

XBC Compressor casing and rotor.
from incl. compressor inlet
to incl. compressor outlet.

XBD Bearings.

XBE Cooling medium system.

XBH Cooling and sealing gas system.
from incl. extraction point
to excl. user and
from excl. user, incl. leak-off
to incl. inlet to other system.

XBJ Start-up unit.

XBK Transmission gear between prime mover and driven machine, incl. turning gear, barring gear.

XBL Intake air, cold gas system (open cycle).
from excl. atmosphere
to excl. combustion chamber or
to excl. compressor inlet or
to incl. exhaust gas heat exchanger, excl. compressor.

XBM Combustion chamber (gas heating, combustion).
from incl. cold gas, fuel inlet
to incl. hot gas outlet.

XBN Fuel supply system (liquid).
from excl. branch off main supply line or
from incl. temporary (day) tank
to excl. combustion chamber or
to excl. motive gas generating unit, i
ncl. fuel return system.

XBP Fuel supply system (gaseous).
from excl. branch off main supply line
to excl. combustion chamber or
to excl. motive gas generating unit.

XBQ Ignition fuel supply system (if separate).
from excl. branch off main supply line or
from incl. storage tank
to excl. combustion chamber or
to excl. motive gas generating unit.

XBR Exhaust gas system (open cycle).
from excl. combustion chamber or
from excl. exhaust gas diffuser
to excl. discharge into atmosphere, excl. turbine, or
to excl. inlet to other system
(e.g. combustion air system).

XBS Storage system.
to excl. connection to main system and
from excl. connection to main system.

XBT Motive gas generator unit, incl. combustion chamber.
from incl. air/fuel inlet
to incl. motive gas outlet of motive gas generating unit.

XBU Additive system.
from incl. supply
to incl. injection.

XBV Lubricant supply system.
from incl. dedicated lubricant tank or
common lubricant and control fluid tank or
from excl. branch off control fluid supply system
to excl. user and from excl. user.

XBW Seal oil supply.
from incl. dedicated sealing oil tank or
from excl. sealing oil pump suction line
to excl. user and
from excl. user.

XBX Non-electric control and protection equipment, incl. fluid supply system.

XBY Electrical control and protection equipment.

XBZ Lubricant and control fluid treatment system.

XE Hydraulic turbine plant.

XEA Turbine (casing, shaft, runner etc.).
from excl. turbine inlet or
from excl. isolating valve
to incl. turbine outlet or
to excl. isolating valve, incl. draft tube.

XEB Isolating valve.
from incl. isolating valve inlet
to incl. isolating valve outlet.

XED Bearings.

XEG Stabilizing air system.
from incl. air compressor
to incl. outlet to turbine.

XEK Transmission gear between prime mover and driven machine.

XEL Water depression air supply system.
from incl. air compressor
to incl. outlet to turbine.

XES Shaft gland cooling water system.

XEV Lubricant supply system.
from incl. lubricant tank
to excl. user and
from excl. user.

XEW Sealing water supply system.
from incl. sealing water supply main isolating valve
to excl. casing nozzle of sealing water user.

XEX Non-electric control and protection equipment, incl. fluid supply.

XEY Electrical control and protection equipment.

XJ Diesel engine plant.

XJA Engine.
from incl. fuel injection nozzle inlet or
from incl. air intake nozzles or
from incl. cooling water inlet nozzles
to incl. exhaust nozzle outlet or
to incl. cooling water nozzle outlet, incl. engine- internal systems.

XJB Turbocharger, blower.
from incl. turbocharger or blower inlet
to incl. turbocharger or blower outlet.

XJG Liquid cooling system.
from excl. engine cooling water nozzle outlet or
from incl. turbocharger air cooling system inlet
to excl. engine cooling water nozzle inlet or
to incl. turbocharger air cooler outlet.

XJH Air intercooling system.
from incl. intercooler inlet to incl. intercooler outlet
to excl. outlet to other cooling systems.

XJK Transmission gear between prime mover and driven machine.

XJN Fuel systems.
from incl. temporary (day) tank or
from excl. branch off piping system
to excl. fuel injection nozzle inlet.

XJP Start-up unit, (incl. flywheel).

XJQ Air intake system.
from excl. atmosphere
to excl. turbocharger or
to excl. engine air intake nozzles.

XJR Exhaust gas system.
from excl. engine exhaust nozzle outlet
to excl. discharge to atmosphere.

XJV Lubricant supply system.
from incl. dedicated lubricant tank or
common lubricant and control fluid tank or
from excl. branch off control fluid supply system
to excl. user
from excl. user.

XJW Sealing fluid supply system.

XJX Fluid supply system for control and protection equipment.

XJY Control and protection equipment.

XK Generator plant.

XKA Black Start Generator Sets.
to incl. generator bushing.

XKB Exciter set (use only if *XKC* is not sufficient for identification).

XKC Exciter set.

XKD Bearings.

XKF Stator/rotor liquid cooling system, incl. coolant supply system (Note: for cooling oil see *XKU*).
Task: dissipate heat produced by stator/rotor to coolant
from excl. stator/rotor outlet
to excl. stator/rotor inlet.

XKG Stator/rotor gas cooling system, incl. coolant supply system (Note: for nitrogen cooling see *XKH*).
Task: dissipate heat produced by stator/rotor to coolant
from excl. stator/rotor outlet
to excl. stator/rotor inlet.

XKH Stator/rotor nitrogen cooling system, incl. coolant supply system (Note: for other gas cooling see *XKG*).
Task: dissipate heat produced by stator/rotor to coolant
from excl. stator/rotor outlet
to excl. stator/rotor inlet.

XKP Secondary cooling water system.
from excl. cooling water system (*PC*, *PG*)
to excl. users incl. blowdown, discharge, venting
from excl. users
to excl. inlet into other system.

XKQ Exhaust gas system (if separate from *XKG* and *XKH*).

XKU Stator/rotor cooling oil cooling system, incl. coolant supply system (Note: for other liquid cooling see *XKF*).
Task: dissipate heat produced by stator/rotor to coolant
from excl. stator/rotor outlet
to excl. stator/rotor inlet.

XKV Lubricant supply system (if separate system for generator).

XKW Sealing fluid supply system (Sealing oil system, incl. supply and treatment).
from excl. branch off sealing oil supply system
to excl. stator inlet and from excl. stator outlet
to excl. inlet to other system or in closed systems
from excl. stator outlet
to excl. stator inlet.

XKX Fluid supply system for control and protection equipment.

XKY Control and protection equipment.

XL Electro-motive plant (incl. motor generator).

XLA Motor frame, motor generator frame, incl. stator, rotor and all integral cooling equipment.
to incl. motor or generator bushing

XLC Exciter set.

XLD Bearings.

XLF Stator/rotor liquid cooling system, incl. coolant supply system (Note: for cooling oil see *XLU*).
Task:
dissipate heat produced by stator/rotor to coolant
from excl. stator/rotor outlet
to excl. stator/rotor inlet.

XLG Stator/rotor gas cooling system, incl. coolant supply system(Note: for nitrogen cooling see *XLH*).
Task:
dissipate heat produced by stator/rotor to coolant
from excl. stator/rotor outlet
to excl. stator/rotor inlet.

XLH Stator/rotor nitrogen cooling system, incl. coolant supply system (Note: for other gas cooling see *XLG*).
Task:
dissipate heat produced by stator/rotor to coolant
from excl. stator/rotor outlet
to excl. stator/rotor inlet.

XLQ Exhaust gas system (if separate from *XLG* and *XLH*).

XLU Stator/rotor cooling oil cooling system, incl. coolant supply system (Note: for other liquid cooling see *XLF*).
Task:
dissipate heat produced by stator/rotor to coolant
from excl. stator/rotor outlet
to excl. stator/rotor inlet.

XLV Lubricant supply system (if separate system for electro-motive units).

XLW Sealing fluid supply system (Sealing oil system, incl. supply and treatment).
from excl. branch off sealing oil supply system
to excl. stator inlet and
from excl. stator outlet
to excl. inlet to other system or in closed systems
from excl. stator outlet
to excl. stator inlet.

XLX Fluid supply system for control and protection equipment.

XLY Control and protection equipment.

XP Common installations for heavy machinery.

XPA Foundations.

XPB Sheating.

XPG Frame, support structure.

XPR Forced cooling system.

XPS Drying and layup system.

XR Gas engine plant.

XRA Gas engine plant.
(free for use).

XRB Gas engine plant.
(free for use).

XRC Gas engine plant.
(free for use).

XRD Gas engine plant.
(free for use).

XRE Gas engine plant.
(free for use).

XRF Gas engine plant.
(free for use).

XRG Gas engine plant.
(free for use).

XRH Gas engine plant.
(free for use).

XRJ Gas engine plant.
(free for use).

XRK Gas engine plant.
(free for use).

XRL Gas engine plant.
(free for use).

XRM Gas engine plant.
(free for use).

XRN Gas engine plant.
(free for use).

XRP Gas engine plant.
(free for use).

XRQ Gas engine plant.
(free for use).

XRR Gas engine plant.
(free for use).

XRS Gas engine plant.
(free for use).

XRT Gas engine plant.
(free for use).

XRU Gas engine plant.
(free for use).

XRV Lubricant supply system.

XRW Sealing fluid supply system.

XRX Fluid supply system for control and protection equipment.

XRY Control and protection equipment.

XV Lubricant supply system.

XVA Lubricant supply system.
(free for use).
XVB Lubricant supply system.
(free for use).
XVC Lubricant supply system.
(free for use).
XVD Lubricant supply system.
(free for use).
XVE Lubricant supply system.
(free for use).
XVF Lubricant supply system.
(free for use).
XVG Lubricant supply system.
(free for use).
XVH Lubricant supply system.
(free for use).
XVJ Lubricant supply system.
(free for use).
XVK Lubricant supply system.
(free for use).
XVL Lubricant supply system.
(free for use).
XVM Lubricant supply system.
(free for use).
XVN Lubricant supply system.
(free for use).
XVP Lubricant supply system.
(free for use).
XVQ Lubricant supply system.
(free for use).
XVR Lubricant supply system.
(free for use).
XVS Lubricant supply system.
(free for use).
XVT Lubricant supply system.
(free for use).
XVU Lubricant supply system.
(free for use).

XW Sealing fluid supply system.

XWA Sealing fluid supply system.
(free for use).
XWB Sealing fluid supply system.
(free for use).
XWC Sealing fluid supply system.
(free for use).
XWD Sealing fluid supply system.
(free for use).
XWE Sealing fluid supply system.
(free for use).
XWF Sealing fluid supply system.
(free for use).
XWG Sealing fluid supply system.
(free for use).
XWH Sealing fluid supply system.
(free for use).
XWJ Sealing fluid supply system.
(free for use).
XWK Sealing fluid supply system.
(free for use).
XWL Sealing fluid supply system.
(free for use).
XWM Sealing fluid supply system.
(free for use).
XWN Sealing fluid supply system.
(free for use).
XWP Sealing fluid supply system.
(free for use).
XWQ Sealing fluid supply system.
(free for use).
XWR Sealing fluid supply system.
(free for use).
XWS Sealing fluid supply system.
(free for use).
XWT Sealing fluid supply system.
(free for use).
XWU Sealing fluid supply system.
(free for use).

XX Fluid supply system for control and protection equipment.

XXA Fluid supply system for control and protection equipment.
(free for use).
XXB Fluid supply system for control and protection equipment.
(free for use).
XXC Fluid supply system for control and protection equipment.
(free for use).
XXD Fluid supply system for control and protection equipment.
(free for use).
XXE Fluid supply system for control and protection equipment.
(free for use).
XXF Fluid supply system for control and protection equipment.
(free for use).
XXG Fluid supply system for control and protection equipment.
(free for use).
XXH Fluid supply system for control and protection equipment.
(free for use).

XXJ Fluid supply system for control and protection equipment.
(free for use).
XXK Fluid supply system for control and protection equipment.
(free for use).
XXL Fluid supply system for control and protection equipment.
(free for use).
XXM Fluid supply system for control and protection equipment.
(free for use).
XXN Fluid supply system for control and protection equipment.
(free for use).
XXP Fluid supply system for control and protection equipment.
(free for use).
XXQ Fluid supply system for control and protection equipment.
(free for use).
XXR Fluid supply system for control and protection equipment.
(free for use).
XXS Fluid supply system for control and protection equipment.
(free for use).
XXT Fluid supply system for control and protection equipment.
(free for use).
XXU Fluid supply system for control and protection equipment.
(free for use).

XY Control and protection equipment.

XYA Control and protection equipment. (free for use).
XYB Control and protection equipment. (free for use).
XYC Control and protection equipment.
(free for use).
XYD Control and protection equipment.
(free for use).
XYE Control and protection equipment.
(free for use).
XYF Control and protection equipment.
(free for use).
XYG Control and protection equipment.
(free for use).
XYH Control and protection equipment.
(free for use).
XYJ Control and protection equipment.
(free for use).
XYK Control and protection equipment.
(free for use).
XYL Control and protection equipment.
(free for use).
XYM Control and protection equipment.
(free for use).
XYN Control and protection equipment.
(free for use).
XYP Control and protection equipment.
(free for use).
XYQ Control and protection equipment.
(free for use).
XYR Control and protection equipment.
(free for use).
XYS Control and protection equipment.
(free for use).
XYT Control and protection equipment.
(free for use).
XYU Control and protection equipment.
(free for use).

Z

WORKSHOP AND OFFICE EQUIPMENT

ZA Workshop and office equipment.

ZB Workshop and office equipment.

ZC Workshop and office equipment.

ZM Workshop and office equipment.

ZZ Workshop and office equipment.

ZA Workshop and office equipment.
(free for use).

ZB Workshop and office equipment.
(free for use).

ZC Workshop and office equipment.
(free for use).

ZM Workshop and office equipment.
(free for use).

ZMB Mobile cleaning equipment.

ZZ Workshop and office equipment.
(free for use).

4. KKS EQUIPMENT UNIT KEY (A_1 A_2)

A Mechanical equipment

AA Valves, dampers, etc., incl. actuators, also manual; rupturedisk equipment
AB Isolating elements, air locks
AC Heat exchangers, heat transfer surfaces
AD -blocked-
AE Turning, driving, lifting and slewing gear (also manipulators)
AF Continuous conveyors, feeders (escalators)
AG Generator units
AH Heating, cooling and air conditioning units
AJ Size reduction equipment, only as part of process
AK Compacting and packaging equipment, only as part of process
AL -blocked-
AM Mixers, agitators
AN Compressor units, fans
AP Pump units
AQ -blocked-
AR -blocked-
AS Adjusting and tensioning equipment for non-electrical variables (to be applied only, if the actuator forms itself a constructive unit with another equipment unit)
AT Cleaning, drying, filtering and separating equipment, excl. *BT*
AU Braking, gearbox, coupling equipment, non-electrical converters
AV Combustion equipment
AW Stationary tooling, treatment equipment
AX Test and monitoring equipment for plant maintenance
AY -blocked-
AZ -blocked-

B Mechanical equipment

BA -blocked-
BB Storage equipment (tanks)
BC -blocked-
BD -blocked-
BE Shafts (for erection and maintenance only)
BF Foundations
BG -blocked-
BH -blocked-
BJ -blocked-
BK -blocked-
BL -blocked-
BM -blocked-
BN Jet pumps, ejectors, injectors
BP Flow restrictors, limiters, orifices (not metering orifices)
BQ Hangers, supports, racks, piping penetrations
BR Piping, ductwork, chutes, compensators
BS Silencers
BT Flue gas catalytic converter modules
BU Insulation, sheathing
BV -blocked-
BW -blocked-
BX -blocked-
BY -blocked-
BZ -blocked-

C Direct measuring circuits (Data character A2 following DIN 19227, part 1, September 1973 edition, table 1, initial letter)

CA -blocked-
CB -blocked-
CC -blocked-
CD Density
CE Electrical variables (e.g. current, voltage, power, electr. frequency)
CF Flow, rate
CG Distance, length, position, direction of rotation
CH Manual input as manually operated sensor (e.g. fire detector)
CJ -blocked-
CK Time
CL Level (also for dividing line)
CM Moisture, humidity
CN -blocked-
CP Pressure
CQ Quality variables (analysis, material properties), other than *CD*, *CM*, *CV*
CR Radiation variables
CS Velocity, speed, frequency (mechanical), acceleration
CT Temperature
CU Combined and other variables
CV Viscosity
CW Weight, mass
CX Neutron flux
CY Vibration, expansion
CZ -blocked-

D Closed loop control circuits (Data character A2 following DIN 19227, part 1, September 1973 edition, table 1, initial letter)

DA -blocked-
DB -blocked-
DC -blocked-
DD Density
DE Electrical variables (e.g. current, voltage, power, electr. frequency)
DF Flow, rate
DG Distance, length, position, direction of rotation
DH -blocked-
DJ -blocked-
DK Time
DL Level (also for dividing line)
DM Moisture, humidity
DN -blocked-
DP Pressure
DQ Quality variables (analysis, material properties), other than *DD*, *DM*, *DV*
DR Radiation variables
DS Velocity, speed, frequency (mechanical), acceleration
DT Temperature
DU Combined and other variables
DV Viscosity
DW Weight, mass
DX Neutron flux
DY Vibration, expansion
DZ -blocked-

E Analog and binary signal conditioning

EA Open loop control (free for use)
EB Open loop control (free for use)
EC Open loop control (free for use)
ED Open loop control (free for use)
EE Open loop control (free for use)
EF -blocked-
EG Alarm, annunciation (free for use)
EH Alarm, annunciation (free for use)
EJ Alarm, annunciation (free for use)
EK Alarm, annunciation (free for use)
EL -blocked-
EM Process computer (free for use)
EN Process computer (free for use)
EP Process computer (free for use)
EQ Process computer (free for use)
ER Reactor protection
ES -blocked-
ET -blocked-
EU Combined analog and binary signal conditioning
EV -blocked-
EW Protection (free for use)
EX Protection (free for use)
EY Protection (free for use)
EZ Protection (free for use)

F Indirect measuring circuits (Data character A2 following DIN 19227, part 1, September 1973 edition, table 1, initial letter)

FA -blocked-
FB -blocked-
FC -blocked-
FD Density
FE Electrical variables (e.g. electr. efficiency, power)
FF Flow, rate
FG Distance, length, position, direction of rotation
FH -blocked-
FJ -blocked-
FK Time
FL Level (also for dividing line)
FM Moisture, humidity
FN -blocked-
FP Pressure
FQ Quality variables (analysis, material properties), other than *FD*, *FM*, *FV*
FR Radiation variables
FS Velocity, speed, frequency (mechanical), acceleration
FT Temperature
FU Combined and other variables
FV Viscosity
FW Weight, mass
FX Neutron flux
FY Vibration, expansion
FZ -blocked-

G Electrical equipment

GA Junction boxes and cable/bus bar penetrations (free for use)
GB Junction boxes and cable/bus bar penetrations (free for use)
GC Junction boxes and cable/bus bar penetrations (free for use)
GD Junction boxes and cable/bus bar penetrations (free for use)
GE Junction boxes and cable/bus bar penetrations (free for use)
GF Junction boxes and cable/bus bar penetrations (free for use)
GG Junction boxes and cable/bus bar penetrations (free for use)
GH Electrical and instrumentation and control installation units identified as per process system (e.g. cubicles, boxes)
GJ -blocked-
GK Information display and operator control equipment for process computers and automation systems
GL -blocked-
GM Junction boxes for light-current systems of national telecommunication services
GN -blocked-
GP Subdistribution/junction boxes for lighting
GQ Subdistribution/junction boxes for power sockets
GR DC generating equipment, batteries
GS Switchgear equipment if not identified under process equipment
GT Transformer equipment
GU Converter equipment
GV Structure-related earthing and lightning protection equipment, surge arrestors
GW Cabinet power supply equipment
GX Actuating equipment for electrical variables
GY Junction boxes for light-current systems (not of national telecommunication services)
GZ Hangers, supports and racks for electrical and instrumentation and control equipment

H Subassemblies of main and heavy machinery (only to be used in conjunction with *M* = Main machine sets and *X* = Heavy machinery)

HA Machine stationary assembly
HB Machine rotating assembly
HC -blocked-
HD Bearing assembly
HE -blocked-
HF -blocked-
HG -blocked-
HH -blocked-
HJ -blocked-
HK -blocked-
HL -blocked-
HM -blocked-
HN -blocked-
HP -blocked-
HQ -blocked-
HR -blocked-
HS -blocked-
HT -blocked-
HU -blocked-
HV -blocked-
HW -blocked-
HX -blocked-
HY -blocked-
HZ -blocked-

5. KKS COMPONENT KEY (B_1 B_2)

Electrical components (To DIN 40719, part 2, September 1978 edition)

- **-A Assemblies and sub-assemblies**
- **-B Transducers for non-electrical to electrical variables and vice-versa**
- **-C Capacitors**
- **-D Binary elements, delay devices, memory devices**
- **-E Special components**
- **-F Protective devices**
- **-G Generators, power supplies**
- **-H Signalling devices**
- **-K Relays, contactors**
- **-L Inductors**
- **-M Motors**
- **-N Amplifiers, controllers**
- **-P Measuring instruments, testing equipment**
- **-Q Power switchgear**
- **-R Resistors**
- **-S Switches, selectors**
- **-T Transformers**
- **-U Modulators, convertors from electrical to other electrical variables**
- **-V Tubes, semiconductors**
- **-W Transmission paths, waveguides, aerials**
- **-X Terminals, plugs, sockets**
- **-Y Electrical positioners, e.g. solenoids (not motors)**
- **-Z Terminations, balancing equipment, filters, limiters, cable terminations**

A -blocked-

B -blocked-

C -blocked-

D -blocked-

E -blocked-

F -blocked-

G -blocked-

H -blocked-

J -blocked-

K Mechanical components

KA Gate valves, globe valves, dampers, cocks, rupture disks, orifices
KB Gates, doors, dam boards
KC Heat exchangers, coolers
KD Vessels/tanks, pools, surge tanks (fluid systems)
KE Turning, driving, lifting and slewing gear
KF Continuous conveyors, feeders
KG -blocked-
KH -blocked-
KJ Size reduction machines
KK Compacting, packaging machines
KL -blocked-
KM Mixers, agitators
KN Compressors, blowers, fans
KP Pumps
KQ -blocked-
KR -blocked-
KS -blocked-
KT Cleaning machines, dryers, separators, filters
KU -blocked-
KV Burners, grates
KW Stationary tooling and treatment machines for maintenance
KX -blocked-
KY -blocked-
KZ -blocked-

L -blocked-

M Mechanical components

MA -blocked-
MB Brakes
MC -blocked-
MD -blocked-
ME -blocked-
MF Foundations
MG Gearboxes
MH -blocked-
MJ -blocked-
MK Clutches, couplings
ML -blocked-
MM Engines, not electrical
MN -blocked-
MP -blocked-
MQ -blocked-
MR Piping components, ductwork components
MS Positioners, not electrical
MT Turbines
MU Transmission gear, non electrical, converters and boosters other than couplings and gearboxes
MV -blocked-
MW -blocked-
MX -blocked-
MY -blocked-
MZ -blocked-

N -blocked-

P -blocked-

Q Instrumentation and control components (non-electrical)

QA -blocked-
QB Sensors if not structurally integral with *QP*, metering orifices
QC -blocked-
QD -blocked-
QE -blocked-
QF -blocked-
QG -blocked-
QH Signalling devices
QJ -blocked-
QK -blocked-
QL -blocked-
QM -blocked-
QN Controllers, flybolt governor
QP Measuring instruments, testing equipment
QQ -blocked-
QR Instrument piping
QS Condensation chambers (datum reservoir) in measuring circuits
QT Thermowells and pockets for protection of sensors
QU -blocked-
QV -blocked-
QW -blocked-
QX -blocked-
QY -blocked-
QZ -blocked-

R -blocked-

S -blocked-

T -blocked-

U -blocked-

V -blocked-

W -blocked-

X	Signal origins (Subgroups are established as appropriate to the type of instrumentation and control system and are therefore subject to agreement between the parties to the project.)
XA	Signal origins (free for use)
XB	Signal origins (free for use)
XC	Signal origins (free for use)
XD	Signal origins (free for use)
XE	Signal origins (free for use)
XF	Signal origins (free for use)
XG	Signal origins (free for use)
XH	Signal origins (free for use)
XJ	Signal origins (free for use)
XK	Signal origins (free for use)
XL	Signal origins (free for use)
XM	Signal origins (free for use)
XN	Signal origins (free for use)
XP	Signal origins (free for use)
XQ	Signal origins (free for use)
XR	Signal origins (free for use)
XS	Signal origins (free for use)
XT	Signal origins (free for use)
XU	Signal origins (free for use)
XV	Signal origins (free for use)
XW	Signal origins (free for use)
XX	Signal origins (free for use)
XY	Signal origins (free for use)
XZ	Signal origins (free for use)

Y	Signal applications (Subgroups are established as appropriate to the type of instrumentation and control system and are therefore subject to agreement between the parties to the project.)
YA	Signal applications (free for use)
YB	Signal applications (free for use)
YC	Signal applications (free for use)
YD	Signal applications (free for use)
YE	Signal applications (free for use)
YF	Signal applications (free for use)
YG	Signal applications (free for use)
YH	Signal applications (free for use)
YJ	Signal applications (free for use)
YK	Signal applications (free for use)
YL	Signal applications (free for use)
YM	Signal applications (free for use)
YN	Signal applications (free for use)
YP	Signal applications (free for use)
YQ	Signal applications (free for use)
YR	Signal applications (free for use)
YS	Signal applications (free for use)
YT	Signal applications (free for use)
YU	Signal applications (free for use)
YV	Signal applications (free for use)
YW	Signal applications (free for use)
YX	Signal applications (free for use)
YY	Signal applications (free for use)
YZ	Signal applications (free for use)

Z	Gated signals (Subgroups are established as appropriate to the type of instrumentation and control system and are therefore subject to agreement between the parties to the project.)
ZA	Gated signals (free for use)
ZB	Gated signals (free for use)
ZC	Gated signals (free for use)
ZD	Gated signals (free for use)
ZE	Gated signals (free for use)
ZF	Gated signals (free for use)
ZG	Gated signals (free for use)
ZH	Gated signals (free for use)
ZJ	Gated signals (free for use)
ZK	Gated signals (free for use)
ZL	Gated signals (free for use)
ZM	Gated signals (free for use)
ZN	Gated signals (free for use)
ZP	Gated signals (free for use)
ZQ	Gated signals (free for use)
ZR	Gated signals (free for use)
ZS	Gated signals (free for use)
ZT	Gated signals (free for use)
ZU	Gated signals (free for use)
ZV	Gated signals (free for use)
ZW	Gated signals (free for use)
ZX	Gated signals (free for use)
ZY	Gated signals (free for use)
ZZ	Gated signals (free for use)

ALSTOM

ALSTOM (Switzerland) Ltd - Brown Boveri Strasse 7 - CH-5401 Baden - Switzerland - Phone +41 56 205 70 58 - Fax +41 56 205 28 88
ALSTOM Power Generation Inc. - 2800 Waterford Lake Drive - Midlothian, Virginia 23112 - United States of America - Phone +1 804 763 75 02 - Fax +1 804 763 75 78
ALSTOM Power Asia Pacific Sdn Bhd - 20th Floor, WISMA Genting - 28, Jalan Sultan Ismail - 50250 Kuala Lumpur, Malaysia - Phone +60 3 2163 60 71 - Fax +60 3 2055 63 33