

Glossary of

Electrotechnical, power, telecommunication, electronics, lighting and colour terms —

**Part 2: Terms particular to power
engineering —**

**Group 11: Generation, transmission and
distribution of electricity terminology**

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- Electricity Supply Industry in England and Wales
- Electronic Engineering Association
- Institute of Physics
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Contents

	Page
Committees responsible	Inside front cover
Foreword	ii
Guide to the glossary	iv
211 1 General	1
211 11 Fundamental terms	1
211 12 System configuration	3
211 13 Equipment	4
211 14 High voltage d.c. systems	5
211 2 Generation	6
211 21 Power stations	6
211 22 Installation and generation equipment	8
211 23 Operation of power stations	11
211 3 Power system planning and management	12
211 31 Power system planning	12
211 32 Network calculation	13
211 33 Stability	16
211 34 Power system control	17
211 35 Power system reliability	20
211 36 Economic optimization	22
211 4 Operation	23
211 41 Quality of supply	23
211 42 Faults	26
211 43 Overvoltages and insulation co-ordination	28
211 44 Safety	32
211 45 Electromagnetic interference and noise in telecommunication systems	34
211 5 Substations	35
211 51 Types of substations: substation layouts	35
211 52 Primary plant of substations	40
211 53 Secondary arrangements of substations	43
Alphabetical index	44
Figure 1 — Three-switch mesh substation with bypass	37
Figure 2 — Four-switch mesh substation with mesh opening disconnectors	37
Figure 3 — One-and-a-half breaker arrangement	38
Figure 4	39

Foreword

This Group of Part 2 of BS 4727, prepared under the direction of the General Electrotechnical Engineering Standards Committee, contains terms and definitions relating to the generation, transmission and distribution of electricity. The terms and definitions are technically identical with the corresponding terms appearing in Chapters 601, 602, 603, 604 and 605 of the International Electrotechnical Vocabulary, published by the International Electrotechnical Commission (IEC).

BS 4727 combines into one glossary the subjects previously covered by BS 204 “*Glossary of terms used in telecommunication (including radio) and electronics*”, BS 205 “*Glossary of terms used in electrical engineering*”, BS 233 “*Glossary of terms used in illumination and photometry*”, BS 661 “*Glossary of acoustical terms*” and BS 1611 “*Glossary of colour terms used in science and industry*”. These five glossaries have now been withdrawn.

The glossary is divided into five main Parts, each of which is further subdivided into Groups. Each Group will comprise the terms and definitions used in a particular branch of electrical engineering and will be issued individually as soon as it is completed. This arrangement makes it possible to add new Groups or revise existing Groups at any time without affecting the remainder of the glossary.

The five main Parts of the glossary are as follows.

- *Part 1: Terms common to power, telecommunications and electronics;*
- *Part 2: Terms particular to power engineering;*
- *Part 3: Terms particular to telecommunications and electronics;*
- *Part 4: Terms particular to lighting and colour;*
- *Part 5: Terms particular to electromedical equipment.*

Fundamental and general terms common to power, telecommunications and electronics respectively form the first two Groups of Part 1. General terms particular to Part 2 and Part 3 similarly form the first Groups of their respective Parts. The specialist Groups contain only the terms and definitions relating to their subject.

As far as has been practicable all terms and definitions established in current usage and falling within the scope of this glossary have been included. Experience has shown that it is rarely possible to replace, or even to modify, a well established term no matter what the logical or aesthetic shortcomings of that term may be. Current usage has therefore been accepted as the authority for terms and their meanings except where there has been a very good reason for doing otherwise, e.g. where terms have been considered to be fundamentally wrong, ambiguous, superfluous or in need of standardization. Where two or more synonymous terms are in use, those which are deprecated are omitted from the body of the text but are entered in the alphabetical index with a cross-reference to the standard term. In cases where it was felt that the time was not yet right to deprecate a synonym, preferred terms are given first and the other terms are printed in less prominent type to indicate the intention to deprecate them in the course of time. Where synonyms are considered of equal value they are shown in the same type.

Where terms are used with somewhat different meanings in different branches of electrical engineering, appropriate definitions are given in the Groups of the glossary corresponding to these branches. Such a definition, when taken out of the context of its Group, should if possible be quoted with a preamble indicating its proper context.

It is to be noted that the given definition of a term represents the generally accepted meaning of that term. Under no circumstances should it be regarded as taking the place of a specification.

An effort has been made to arrange the terms in a logical order proceeding from the general to the specific and from the whole to the part and placing allied terms in proximity. Each term has assigned to it a Part number (one digit) and a Group number of two digits followed by a space and four digits, the first digit of which represents the section, the second digit the subsection and the last two digits the place within the subsection. The International Electrotechnical Vocabulary employs a different numbering system and for convenience the IEV number is given in parentheses after the BS number for each term.

A general view of the arrangement of the Group in the glossary can be obtained from the guide to the glossary. An alphabetical index of the terms of the Group is provided at the end to facilitate reference to particular terms. For simplicity, only the last four digits of a term's number are quoted in the index. It is recommended that the user of any Group of the glossary should consider the Group in association with the Groups covering general or fundamental terms within the Part, for Parts 2 and 3, and also together with Groups 01 and 02 of Part 1.

In this glossary parentheses () enclose words or phrases that are not part of the term or definition and can be omitted without affecting the meaning.

Square brackets [] enclose words which may replace a preceeding part of an expression.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i to vi, pages 1 to 48 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

Guide to the Glossary

Part 1 Terms common to power, telecommunications and electronics

- Group 01 Fundamental terminology
- Group 02 Electrical and magnetic devices technology
- Group 03 Relay terminology
- Group 04 Measurement terminology
- Group 05 Semiconductor terminology
- Group 06 Electronic tube terminology
- Group 07 Magnetism terminology
- Group 08 Piezo-electric device terminology
- Group 09 Radio interference terminology
- Group Integrated electronic circuit terminology^a

Titles to any further groups will be added in due course.

Part 2 Terms particular to power engineering

- Group 02 Power electronics terminology
- Group 03 Rotating machinery terminology
- Group 04 Transformer terminology
- Group 05 Voltage fluctuation terminology
- Group 06 Switchgear and controlgear terminology (including fuse terminology)
- Group 07 Tariffs terminology
- Group 08 Electric cable terminology
- Group 09 Transducer terminology
- Group 10 Industrial electroheating terminology

Group 11 Generation, transmission and distribution of electricity terminology

- Group Traction terminology^a

Titles to any further groups will be added in due course.

Part 3 Terms particular to telecommunications and electronics

- Group 01 General telecommunication and electronics terminology
- Group 02 Telephony terminology
- Group 03 Telegraphy, including facsimile, terminology
- Group 04 Broadcasting, radio and television terminology
- Group 05 Propagation and media terminology
- Group 06 Radio location and navigation terminology
- Group 07 Radiocommunication terminology
- Group 08 Acoustics and electroacoustics terminology
- Group 09 Waveguide terminology
- Group 10 Recording and reproduction of sound and video terminology
- Group 11 Space radiocommunications terminology

Titles to any further groups will be added in due course.

Part 4 Terms particular to lighting and colour

- Group 01 Radiation and photometry terminology
- Group 02 Vision and colour terminology
- Group 03 Lighting technology terminology

Titles to any further groups will be added in due course.

^a Not yet published, as at June 1986.

Part 5 Terms particular to electromedical equipment
Group 01 Radiology and radiological physics equipment
Titles to any further groups will be added in due course.

^a Not yet published, as at June 1986.

211 1 General

211 11 (601-01) Fundamental terms

NOTE For the purposes of the definitions in this group, the term “system” has been used throughout for simplicity but “network” can be substituted according to the context or common usage or as defined herein.

No.	Term	Definition
211 1101 (601-01-01)	electrical power system; electricity supply system	<i>In a broad sense.</i> All installations and plant provided for the purpose of generating, transmitting and distributing electricity.
211 1102 (601-01-02)	electrical power system; electrical power network	Particular installations, substations, lines or cables for the transmission and distribution of electricity. NOTE The boundaries of the different parts of this network are defined by appropriate criteria, such as geographical situation, ownership, voltage, etc.
211 1103 (601-01-03)	alternating current system; a.c. system	An electrical system fed by alternating voltage.
211 1104 (601-01-04)	direct current system; d.c. system	An electrical system fed by unidirectional voltage.
211 1105 (601-01-05)	power frequency	Conventionally, the values of frequency used in the electricity supply systems.
211 1106 (601-01-06)	generation of electricity	A process whereby electrical energy is obtained from some other form of energy.
211 1107 (601-01-07)	conversion of electricity	The changing of the characteristics of the form and frequency of voltage and current by means of a converter.
211 1108 (601-01-08)	transformation of electricity	The transfer of electricity through a power transformer.
211 1109 (601-01-09)	transmission of electricity	The transfer in bulk of electricity, from generating stations to areas of consumption.
211 1110 (601-01-10)	distribution of electricity	The transfer of electricity to consumers within an area of consumption.
211 1111 (601-01-11)	interconnection	<i>Of power systems.</i> A single or multiple transmission link between transmission systems enabling electricity to be exchanged between these systems by means of circuits and/or transformers.
211 1112 (601-01-12)	interconnected systems	Systems connected together by means of one or more interconnection links. NOTE This term is also used in the singular for a system whose elements are interconnected.
211 1113 (601-01-13)	asynchronous link	An interconnection between two a.c. systems operating at independent frequencies.
211 1114 (601-01-14)	short-circuit power	The product of the current in the short circuit at a point of a system and a conventional voltage, generally the operating voltage.

No.	Term	Definition
211 1115 (601-01-15)	load in a system	1) The active, reactive or apparent power generated, transmitted or distributed within a system. 2) The power demanded by a group of consumers classified according to their particulars, and characteristics, e.g. heating load, daytime reactive load, etc.
211 1116 (601-01-16)	peak load	Maximum value of load during a given period of time, e.g. a day, a month, a year.
211 1117 (601-01-17)	load curve	Graphical representation of the observed or expected variation of load as a function of time.
211 1118 (601-01-18)	load duration curve	A curve showing the duration, within a specified period of time, when the load equalled or exceeded a given value.
211 1119 (601-01-19)	active energy	The electrical energy transformable into some other form of energy.
211 1120 (601-01-20)	reactive energy	<i>In an a.c. system</i> , the captive electrical energy exchanged continuously between the different electric and magnetic fields associated with the operation of the electrical system and of all the connected apparatus.
211 1121 (601-01-21)	nominal voltage of a system	A suitable approximate value of voltage used to designate or identify a system.
211 1122 (601-01-22)	operating voltage	<i>In a system</i> . The value of the voltage under normal conditions, at a given instant and a given point of the system. NOTE This value may be expected, estimated or measured.
211 1123 (601-01-23[24])	highest [lowest] voltage of a system	The highest [lowest] value of operating voltage which occurs under normal operating conditions at any time and any point in the system. NOTE Transient overvoltages due e.g. to switching operations and abnormal temporary variations of voltage, are not taken into account.
211 1125 (601-01-25)	voltage level	One of the nominal voltage values used in a given system.
211 1126 (601-01-26)	low voltage LV	A set of voltage levels used for the distribution of electricity and whose upper limit is generally accepted to be 1 000 V a.c.
211 1127 (601-01-27)	high voltage HV	1) In a general sense, the set of voltage levels in excess of low voltage. 2) In a restrictive sense, the set of upper voltage levels used in power systems for bulk transmission of electricity.
211 1129 (601-01-29)	phase-to-phase voltage	The voltage between phases.
211 1130 (601-01-30)	phase-to-neutral voltage	The voltage between a phase in a polyphase system and the neutral point.
211 1131 (601-01-31)	phase-to-earth voltage	The voltage between phase and earth.
211 1132 (601-01-32)	neutral point displacement voltage	The voltage between the real or virtual neutral point and the earth.

211 12 (601-02) System configuration

No.		Term	Definition
211 1201	(601-02-01)	system diagram	A topological representation of a system in which the information content depends on a specific requirement.
211 1202	(601-02-02)	system operational diagram	A system diagram representing a particular operational condition.
211 1203	(601-02-03)	three-phase system diagram	A diagram of a three-phase system in which all phase and neutral conductors are each represented by separate lines.
211 1204	(601-02-04)	single-line diagram	A system diagram in which the polyphase links are represented by their equivalent single line.
211 1205	(601-02-05)	system pattern	A repetitive arrangement of the nodes in a system and their connections, e.g. feeder, ring, mesh, etc.
211 1206	(601-02-06)	system configuration	A permanent or temporary grouping of similar or dissimilar individual system patterns.
211 1207	(601-02-07)	link in a system	A branch between two nodes of a system. NOTE It generally comprises a line, a transformer or a connection between two adjacent bus-bars.
211 1208	(601-02-08)	feeder	An electric line originating at a main substation and supplying one or more secondary substations.
211 1209	(601-02-09)	single feeder; radial feeder	An electric line supplied from one end only.
211 1210	(601-02-10)	branch line; spur	An electric line connected to a main line at a point on its route. NOTE A branch line which is a final circuit is called a spur.
211 1211	(601-02-11)	tapped line; teed line	A main line to which branch lines are connected.
211 1212	(601-02-12)	supply service line connection	A branch line from the distribution system to supply a consumer's installation.
211 1213	(601-02-13)	ring feeder	An arrangement of electric lines forming a complete ring and supplied only from a single source. NOTE A ring can be operated open or closed.
211 1214	(601-02-14)	mesh	<i>Of a system.</i> An arrangement of electric lines forming a closed loop and supplied from several supply sources.
211 1215	(601-02-15)	radial system	A system or part of a system consisting of single feeders supplied from a single source of supply.
211 1216	(601-02-16)	tree'd system	A modified radial system to which spurs have been added.
211 1217	(601-02-17)	meshed system	A system or part of system consisting of multiple meshes.
211 1218	(601-02-18)	single supply	A supply given to a load by one circuit only.
211 1219	(601-02-19)	duplicate supply	A supply to a load by two circuits which are considered to be independent of each other in terms of security supply.

No.		Term	Definition
211 1220	(601-02-20)	stand-by supply	A supply which can be used when the normal supply becomes unavailable or inadequate.
211 1221	(601-02-21)	tapped (tee off) substation	A single supply substation fed from a single branch line.
211 1222	(601-02-22)	neutral point in a polyphase system	The common point of the n -windings in a star-connected equipment such as a power transformer, or an earthing transformer.
211 1223	(601-02-23)	neutral point connection	The means of electrical connection of the neutral point to earth.
211 1224	(601-02-24)	isolated neutral system	A system where the neutral point is not intentionally connected to earth, except for high impedance connections for protection or measurement purposes.
211 1225	(601-02-25)	solidly earthed (neutral) system	A system whose neutral point(s) is (are) earthed directly.
211 1226	(601-02-26)	impedance earthed (neutral) system	A system whose neutral point(s) is (are) earthed through impedances to limit earth fault currents.
211 1227	(601-02-27)	resonant earth (neutral) system; arc-suppression-coil-earth (neutral) system	A system in which one or more neutral points are connected to earth through reactances which approximately compensate the capacitive component of a single-phase-to-earth fault current.

211 13 (601-03) Equipment

NOTE General terms such as: *item, component, device, plant, equipment, installation*, are non-specifically electrical terms, the meaning of each depending on the context. There is no exact corresponding equivalence between the various languages.

211 1301	(601-03-01)	power station; electrical generating station	An installation whose purpose is to generate electricity and which includes civil engineering works, energy conversion equipment and all the necessary ancillary equipment.
211 1302	(601-03-02)	substation	<i>Of a power system.</i> A part of an electrical system, confined to a given area, mainly including ends of transmission or distribution lines, electrical switchgear and controlgear, buildings and transformers. A substation generally includes safety or control devices (for example protection). NOTE The substation can be qualified according to the designation of the system of which it forms a part. Examples: transmission, substation (transmission system), distribution substation, 400 kV or 20 kV substation.
211 1303	(601-03-03)	electric line	An arrangement of conductors, insulating materials and accessories for transferring electricity between two points of a system.

No.		Term	Definition
211 1304	(601-03-04)	overhead line	An electric line whose conductors are supported above ground, generally by means of insulators and appropriate supports. NOTE Certain overhead lines may also be constructed with insulated conductors.
211 1305	(601-03-05)	underground cable	An electric line with insulated conductors buried directly in the ground, or laid in cable ducts, pipes, troughs, etc. NOTE The same expression is used to describe the item physically.
211 1306	(601-03-06)	gas insulated line	An electric line whose conductors are contained in an enclosure and insulated with a compressed gas.
211 1307	(601-03-07)	overhead system	A system consisting essentially of overhead lines.
211 1308	(601-03-08)	underground system	A system consisting essentially of underground cables.
211 1309	(601-03-09)	phase	The designation of any conductor, bundle of conductors, terminal, winding or any other element of a polyphase system, which is intended to be energized under normal use.
211 1310	(601-03-10)	neutral	The designation of any conductor, terminal or any element connected to the neutral point of a polyphase system.
211 1311	(601-03-11)	pole	<i>Of an equipment.</i> In certain types of equipment such as switchgear, the part corresponding to one of the phases in a.c. or to one of the polarities in d.c. NOTE According to the number of poles within the equipment, it is called: single-pole equipment, two-pole equipment, etc.
211 1312	(601-03-12)	pole	<i>Of a d.c. system.</i> The designation of a conductor, terminal or any other element of a d.c. system which is likely to be energized under normal conditions; e.g. positive pole, negative pole.
211 14 (601-04) High voltage d.c. systems			
211 1401	(601-04-01)	high-voltage d.c. link; HVDC link	An installation for transmitting large quantities of electricity at high-voltage d.c., including the converter substations.
211 1402	(601-04-02)	monopolar d.c. link	A link having only one energized pole whatever the means of return of the d.c. current.
211 1403	(601-04-03)	bipolar d.c. link	A link having two poles normally operating at d.c. voltages of opposite polarity in relation to earth.

211 2 Generation

211 21 (602-01) Power stations

No.		Term	Definition
211 2101	(602-01-01)	power station	An installation whose purpose is to generate electricity and which includes civil engineering works, energy conversion equipment and all the necessary ancillary equipment.
211 2102	(602-01-02)	generation system	The total means of generation in a system. NOTE One can also consider only one given subgroup (thermal generation system for example).
211 2103	(602-01-03)	hydroelectric installation	An ordered arrangement of civil engineering structures, machinery and plant designed chiefly to convert the gravitational potential energy of water into electricity.
211 2104	(602-01-04)	hydroelectric power station	A power station in which the gravitational energy of water is converted into electricity.
211 2105	(602-01-05)	run-of-river power station	A hydroelectric power station which uses the river flow as it occurs, the filling period of its own reservoir by the cumulative water flows being practically negligible.
211 2106	(602-01-06)	pondage power station	A hydroelectric power station in which the filling period of the reservoir based on the cumulative water flows permits the storage of water over a period of a few weeks at the most. NOTE In particular, a pondage station permits the cumulative water flows to be stored during periods of low load to enable the turbine to operate during high load periods on the same or following days.
211 2107	(602-01-07)	reservoir power station	A hydroelectric power station in which the filling period of the reservoir based on the cumulative water flows is longer than several weeks. NOTE A reservoir power station generally permits the cumulative water flows to be stored during the high water periods to enable the turbine to operate during later high load periods.
211 2108	(602-01-08)	tidal power station	A hydroelectric power station which uses the differences in water height due to the tides.
211 2109	(602-01-09)	pumped storage	The operation whereby water is raised by means of pumps and stored for later use in one or more hydroelectric installations for the generation of electricity.
211 2110	(602-01-10)	pumped storage power station	A hydroelectric power station employing high level and low level reservoirs permitting repeated pumping and generating cycles to be carried out.
211 2111	(602-01-11)	gross head of a hydroelectric power station	The difference in height between the water intake and tail-race levels under specified conditions.
211 2112	(602-01-12)	net head of a hydroelectric power station	The gross head of a hydroelectric power station less a height equivalent to the hydraulic losses excluding those in the turbines.
211 2113	(602-01-13)	useful water capacity of a reservoir	The volume of water which a reservoir can hold between the lowest and highest levels normal allowable.
211 2114	(602-01-14)	energy capability of a reservoir	The amount of electricity which could be generated by one or more power stations supplied by a reservoir by the complete draining of its useful water capacity.

No.	Term	Definition
211 2115 (602-01-15)	useful water reserve of a reservoir	The volume of water contained at a given moment above the lowest normally allowable working level.
211 2116 (602-01-16)	energy reserve of a reservoir	The amount of electricity which could be generated by power stations supplied by a reservoir by the complete draining of its useful water reserve.
211 2117 (602-01-17)	reservoir fullness factor	The ratio of the electricity reserve of one or more reservoirs, at a given moment, to their energy capability.
211 2118 (602-01-18)	water cumulative flows	Total volume of water flowing through a given cross-section of water course during a given period of time.
211 2119 (602-01-19)	energy capability	<i>Of one or more hydroelectric installations.</i> The amount of electricity which the cumulative water flows, amended by upstream conditions, can produce under optimum conditions during a given period of time.
211 2120 (602-01-20)	mean energy capability	<i>Of one or more hydroelectric installations.</i> The mean of the energy capabilities of one or more hydroelectric installations in a given state of development, determined over the same period and for as many years as possible.
211 2121 (602-01-21)	energy capability factor	<i>Of one or more hydroelectric installations.</i> The ratio of the energy capability over a given period of time to the mean energy capability over the same period.
211 2122 (602-01-22)	thermal power station	A power station in which electricity is generated by conversion of thermal energy. NOTE The thermal energy may be obtained from a variety of sources.
211 2123 (602-01-23)	conventional thermal power station	A thermal power station in which the thermal energy is obtained by a combustion of coal or hydrocarbons.
211 2124 (602-01-24)	combined heat and power	The production of heat which is used for non-electrical purposes and also for electricity.
211 2125 (602-01-25)	compressed air storage	The operation whereby air is compressed, cooled and stored in a natural reservoir.
211 2126 (602-01-26)	compressed air power station	A power station equipped with gas turbines using stored compressed air.
211 2127 (602-01-27)	nuclear (thermal) power station	A thermal power station in which the thermal energy is obtained by a nuclear reaction.
211 2128 (602-01-28)	geothermal power station	A thermal power station in which thermal energy is extracted from suitable parts of the Earth's crust.
211 2129 (602-01-29)	solar power station	A power station producing electrical energy from solar radiation directly by photovoltaic effect, or indirectly by thermal transformation.
211 2130 (602-01-30)	wind power station	A power station in which wind energy is converted into electricity.
211 2131 (602-01-31)	magneto-hydro-dynamic thermal power station; MHD power station	A thermal power station generating electricity by means of an electro-magnetic field acting on a plasma stream.
211 2132 (602-01-32)	ocean or sea temperature gradient power station	A thermal power station producing electricity by means of the difference between the temperatures at the surface of the ocean/sea and that at a lower depth.
211 2133 (602-01-33)	fuel cell	A generator of electricity using chemical energy directly by ionisation and oxidation of the fuel.

211 22 (602-02) Installation and generation equipment

No.		Term	Definition
211 2201	(602-02-01)	generating set	A group of rotating machines transforming mechanical or thermal energy into electricity.
211 2202	(602-02-02)	motor set	A group of rotating machines transforming electricity into mechanical energy.
211 2203	(602-02-03)	hydroelectric set	A generating set consisting of a hydraulic turbine mechanically connected to an electrical generator.
211 2204	(602-02-04)	reversible hydroelectric set	A rotating set capable of assuming the generating or pumping function.
211 2205	(602-02-05)	dam	A structure to retain water inflows for specific uses.
211 2206	(602-02-06)	gravity dam	A dam constructed of concrete and/or masonry which relies on its weight for stability.
211 2207	(602-02-07)	arch dam	A concrete and/or masonry dam which is curved so as to transmit the major part of the water pressure to the abutments.
211 2208	(602-02-08)	earth dam	An embankment dam in which more than the half of the total volume is formed of compacted fine grained material.
211 2209	(602-02-09)	penstock	A pipeline bringing water under pressure to the turbine.
211 2210	(602-02-10)	surge tank; surge shaft	An open-surface reservoir of water decreasing the effects of shock pressure waves in the penstock.
211 2211	(602-02-11)	impulse type turbine	A turbine in which a fluid acts chiefly by its kinetic energy.
211 2212	(602-02-12)	reaction type turbine	A turbine in which a fluid acts both by its kinetic energy and by its pressure.
211 2213	(602-02-13)	Pelton turbine	A hydraulic impulse type turbine usually operated from a high head source with small flow rate.
211 2214	(602-02-14)	Francis turbine	A hydraulic reaction type turbine with fixed runner blades usually operated from a medium or low head source with medium flow rate.
211 2215	(602-02-15)	Kaplan turbine	An axial hydraulic reaction type turbine with adjustable runner blades operated with a high flow rate.
211 2216	(602-02-16)	bulb type unit	A hydroelectric set with its casing containing the generator and turbine immersed in the water flow.
211 2217	(602-02-17)	propeller turbine	A Kaplan type turbine with non-adjustable runner blades suitable for non-varying head sources.
211 2218	(602-02-18)	tail water reservoir	A reservoir for regulating the waterflow in the river and to downstream hydroelectric power stations.
211 2219	(602-02-19)	thermal power unit	A group forming a functional entity usually consisting of a boiler, a thermal generating set, a transformer and their auxiliaries.
211 2220	(602-02-20)	thermal generating set	A generating set consisting of a thermal prime mover mechanically connected to one or more generators of electricity.

No.		Term	Definition
211 2221	(602-02-21)	turbo-generator set	A thermal generating set in which the prime mover consists of a steam turbine.
211 2222	(602-02-22)	internal combustion set	A thermal generating set in which the prime mover consists of an internal combustion engine.
211 2223	(602-02-23)	gas turbine set	A thermal generating set in which the prime mover consists of a gas turbine.
211 2224	(602-02-24)	condensing set	A turbo-generator set in which the turbine is of the condensing type.
211 2225	(602-02-25)	condensing set with reheat	A condensing set with equipment for reheating steam after its partial expansion in the turbine.
211 2226	(602-02-26)	back-pressure set	A turbo-generator in which the turbine is of the back-pressure type.
211 2227	(602-02-27)	main generator	A generator which transmits most or part of its generated electricity into the system or directly to the user.
211 2228	(602-02-28)	auxiliary generator	A generator which generates electricity to supply auxiliaries in a power station.
211 2229	(602-02-29)	unit auxiliaries	Any auxiliary equipment specific to the unit and indispensable for its operation. <i>Examples:</i> mills, circulating pumps, induced draught fans.
211 2230	(602-02-30)	common auxiliaries	A group of auxiliary equipment which is common to the unit and the power station. <i>Examples:</i> lighting, compressors.
211 2231	(602-02-31)	unit generator transformer; set transformer	A transformer connected to the generator terminals through which output power of the generating set is transmitted to the system.
211 2232	(602-02-32) [33]	auxiliary transformer of a unit	<i>Of a power station.</i> A transformer supplying auxiliaries of a unit [of a power station].
211 2234	(602-02-34)	boiler	An installation whose function is to vaporise water under pressure, to superheat — and, in some cases, reheat — the steam.
211 2235	(602-02-35)	natural circulation boiler	A boiler in which circulation is created by convection and in which a drum separates the water phase from the steam phase.
211 2236	(602-02-36)	once-through boiler	An open-circuit boiler in which water delivered by a pump is evaporated and superheated in the same tube.
211 2237	(602-02-37)	controlled circulation boiler	A natural circulation type boiler in which the velocity of water circulation is increased by a pump.
211 2238	(602-02-38 [39] [40])	(pulverised fuel) boiler; (gaseous fuel) boiler; (liquid fuel) boiler	A boiler designed for the type of fuel to be consumed.

No.		Term	Definition
211 2241	(602-02-41)	bin-and-feeder system boiler	A coal-fired boiler for which the milled coal is stored before being introduced into the furnace.
211 2242	(602-02-42)	directly-fired boiler	A pulverised coal boiler in which the milled coal is immediately introduced into the furnace.
211 2243	(602-02-43)	fluidised-bed boiler	A boiler in which the milled coal is maintained in suspension by a rising current of air during combustion.
211 2244	(602-02-44)	superheated steam	Steam which is at a temperature higher than the temperature of saturation at the given pressure.
211 2245	(602-02-45)	superheater	The part of the boiler where the produced steam is superheated.
211 2246	(602-02-46)	reheater	The part of the boiler in which the exhaust steam of the high-pressure part is superheated again.
211 2247	(602-02-47)	steam turbine	A turbine whose driving fluid is steam.
211 2248	(602-02-48)	condensing steam turbine	A steam turbine using a water cooled condenser to cool the exhaust steam.
211 2249	(602-02-49)	condensing steam turbine with bleeding	A condensing steam turbine from which a significant part of steam is extracted for needs other than the generation of electricity.
211 2250	(602-02-50)	cylinder	<i>Of a steam turbine.</i> One of the casings of a steam turbine in which are located most stationary parts. NOTE 1 In a 3 cylinder turbine, following the input steam pressure, exist: — H.P. cylinder (high-pressure) — I.P. cylinder (intermediate-pressure) — L.P. cylinder (low-pressure). NOTE 2 In a wider sense, both casing and rotor together may be called a cylinder.
211 2251	(602-02-51)	line of shafting	A group of rotors coupled on the same axis.
211 2252	(602-02-52)	tandem-compound set	A set consisting of a multi-cylinder steam turbine and a generator in one line of shafting.
211 2253	(602-02-53)	cross-compound set	A set consisting of a multi-cylinder steam turbine with separate shafts which drive one main generator each.
211 2254	(602-02-54)	speed governor	A device which adjusts the intake valves of the turbine in order to maintain the speed of rotation at a required value.
211 2255	(602-02-55)	overspeed device	A device whose function is to close the intake valves of the turbine in order to limit rotation speed increase after sudden loss of load.
211 2256	(602-02-56)	condenser	A heat exchanger which is the cold source in a closed steam cycle and condenses the exhaust steam of the turbine.
211 2257	(602-02-57)	cooling tower	A water/air heat exchanger which cools the condenser cooling water in closed circuit.
211 2258	(602-02-58)	dry cooling tower	A structure in which the condenser cooling water is not in direct contact with air.
211 2259	(602-02-59)	wet cooling tower	A structure in which the condenser cooling water is in direct contact with air.
211 2260	(602-02-60)	forced draught cooling tower	A cooling tower in which the air flow is artificially increased.