UK EPR	Title: Introduction to the Safety, Security and Environmental Report (SSER) **UKEPR-0001-001 Issue 06**
Total number of pages: 51	Page No.: I / III
Chapter Pilot: G. MARTIN *Name/Initials* *Date 10-10-2012*	
Approved for EDF by: A. MARECHAL *Name/Initials* *Date 10-10-2012*	Approved for AREVA by: G. CRAIG *Name/Initials* *Date 10-10-2012*

REVISION HISTORY

Issue	Description	Date
00	First issue (includes technical and co-applicant review comments)	27-04-2008
01	Integration of material from June 08 submission	30-06-2008
02	Integration of November submission elements	24-11-2008
03	PCSR June 2009 update including - Clarification of text - Inclusion of references - Addition of acronyms following review of PCSR text	27-06-2009
04	Minor editorial change (title of PCSR Ch 20 / PCER Ch 5 and addition of a new acronym)	21-03-2010
05	Update for consolidated Step 4 PCSR and post-consultation PCER	28-03-2011
06	Consolidated PCSR update: - References listed under each numbered section or sub-section heading numbered [Ref-1], [Ref-2], [Ref-3], etc - Update for Consolidated GDA submission - Update of system acronyms and addition of new acronyms	10-10-2012

For information address:

AREVA NP SAS
Tour AREVA
92084 Paris La Défense Cedex
France

EDF
Division Ingénierie Nucléaire
Centre National d'Equipement Nucléaire
165-173, avenue Pierre Brossolette
BP900
92542 Montrouge
France

TABLE OF CONTENTS

INTRODUCTION TO THE SAFETY, SECURITY AND ENVIRONMENTAL REPORT (SSER)

EDF and AREVA are seeking regulatory design acceptance for the EPR in the UK through the Generic Design Assessment (GDA) process [Ref-1] devised by the UK nuclear regulators, the Health and Safety Executive (HSE), the Office for Nuclear Regulation (ONR)[1], Civil Nuclear Security[2] (CNS), and the Environment Agency (EA). The UK EPR design reference [Ref-2] submitted for the GDA process is based on the Flamanville 3 (FA3) reference plant under construction in France. This design reference was frozen at the end of 2008 and has since been amended by a small number of design changes originated by EDF/AREVA on the basis of FA3 project feedback and improvements from other EPR projects, or resulting from the GDA assessment itself.

HSE/ONR has issued generic guidance defining the process by which it will carry out its generic assessment of new designs of Nuclear Power stations in the UK [Ref-3]. Similarly, EA has developed a Process and Information (P&I) document [Ref-4] which it will use to undertake a detailed assessment of generic design matters associated with discharges and wastes produced by new designs of Nuclear Power stations, and CNS has issued guidance by which it will assess security aspects of the generic design [Ref-5].

The regulators conduct their assessments using a step-wise approach with the assessments becoming increasingly detailed at each step. At the end of each step reports are published, which provide an update on the detailed technical assessment undertaken by the nuclear assessors. The HSE/ONR and CNS have organised their assessment in four steps, while the Environment Agency's process consists of a preliminary and detailed assessment followed by a consultation. At the end of the GDA process, HSE/ONR and CNS will issue a Design Acceptance Confirmation (DAC) and EA will issue a Statement of Design Acceptability (SoDA) if they are satisfied that the proposed design is acceptable for build in the UK.

The UK EPR GDA submission is presented in a **Safety, Security and Environmental Report (SSER)** which has been developed and detailed in a series of editions in accordance with the step-wise GDA process.

This present edition of the SSER, which supersedes previous editions, is a consolidated version which integrates feedback received from the regulators throughout their assessment (for ONR and CNS) and following the public consultation (for EA).

This SSER comprises three main documents:

- A **Pre-Construction Safety Report (PCSR)** presenting the GDA safety submission for assessment by ONR. The PCSR presents a detailed description of the architecture of the EPR systems, their safety functions and reliability and availability requirements, and an explanation of the design codes and standards that have been used in the design. Detailed fault analyses are presented including Design Basis Analyses, Severe Accident Analyses and Probabilistic Safety Analyses. The objective of the PCSR is to demonstrate that sufficient analysis and engineering substantiation has been performed to give high confidence that the EPR design meets its declared safety objectives.

[1] The Office for Nuclear Regulation (ONR) is an agency of the HSE, which is working towards becoming an independent statutory body outside of the HSE. The role of the ONR is to carry out HSE's operational, regulatory and policy functions in relation to nuclear sites, security of nuclear material and sensitive information and safeguards.

[2] CNS (previously OCNS) became part of ONR during the GDA process.

- A **Pre-Construction Environmental Report (PCER)** presenting the GDA environmental submission, which provides the information requested by the Environment Agency in its guidance Process and Information (P&I) Document as the basis for their detailed assessment of the UK EPR environmental impact.

- A **Conceptual Security Arrangements (CSA)** document presenting the security submission requested in the CNS GDA guidance document. The CSA contains Sensitive Nuclear Information and is a security classified document.

An outline of the PCSR and PCER contents, together with a list of definitions and acronyms used in the PCSR and PCER, is given below.

1. SSER CONTENTS

1.1. PRE-CONSTRUCTION SAFETY REPORT

The PCSR comprises 21 chapters as follows:

PCSR Chapter	Title
1	Introduction and General Description
2	Generic Site Envelope and Data
3	General Design and Safety Aspects
4	Reactor and Core Design
5	Reactor Coolant System and Associated Systems
6	Containment and Safeguard Systems
7	Instrumentation and Control
8	Electrical Supply and Layout
9	Auxiliary Systems
10	Main Steam and Feedwater Lines
11	Discharges and Waste – Chemical and Radiological
12	Radiological Protection
13	Hazards Protection
14	Design Basis Analysis
15	Probabilistic Safety Analysis
16	Risk Reduction and Severe Accident Analyses
17	Compliance with ALARP Principle

PCSR Chapter	Title
18	Human Factors and Operational aspects
19	Commissioning
20	Design Principles related to Decommissioning
21	Quality and Project Management

Note that Sub-chapters 1.2 to 1.5 and Chapters 2, 11, 20 and 21 of the above PCSR contain common content with PCER Sub-chapters 1.2 to 1.5 and Chapters 10, 6, 5 and 2, respectively.

1.2. PRE-CONSTRUCTION ENVIRONMENTAL REPORT

The PCER comprises 12 chapters as described in the table below:

PCER Chapter	Title
1	Introduction and general description
2	Quality and Project Management
3	Aspects having a bearing on the environment during operation phase
4	Aspects having a bearing on the environment during construction phase
5	Design principles related to decommissioning
6	Discharges and waste – chemical and radiological
7	Measures for monitoring the discharges
8	Best Available Techniques
9	Principles and methods used for environmental approach at the design stage
10	Site environmental characteristics
11	Radiological impact assessment
12	Non radiological impact assessment

2. DEFINITIONS

Activity (Radioactive)

The activity is the number of nuclear disintegrations in a radionuclide per unit of time

In the SI system, the unit of activity of a radiation source is the becquerel (Bq), which is equal to the activity of a quantity of radionuclide for which the mean number of nuclear disintegrations per second is 1.

$1\ Bq = 1\ s^{-1}$

Conversion of the activity values into the non-SI unit, the curie (Ci), is such that:

$1\ Bq = 2.7027 \times 10^{-11}\ Ci$

$1\ Ci = 3.7 \times 10^{10}\ Bq$

Activity, specific

The activity of a material per unit mass.

Activity concentration

The activity concentration is the activity per unit of volume of a material or a fluid (liquid or gaseous) in a system or a portion of a system

ALARA (As Low As Reasonably Achievable)

An approach whereby the protective measures against ionising radiation are designed and implemented so that exposure of personnel, in terms of probability and magnitude, are at the lowest level that can be reasonably attained, taking into account economic and social factors. This approach is required by the ICRP (International Commission for Radiological Protection).

ALARP (As Low As Reasonably Practicable)

The risks from a nuclear installation are considered to be ALARP when the “costs” (whether in money, time or trouble …) of making further safety improvements to reduce risk, would be grossly disproportionate to the benefits that would accrue from implementing the improvement.

Alarm

An alarm is an alert signal produced by the instrumentation and control systems that is transmitted to the control room to notify the operators of the occurrence of an operational fault or a change in the plant state that requires one or more actions by the operating team.

Area dose rate

The intensity of radiation in the vicinity of detectors that is considered representative of the general level.

Area dose rate monitoring

This is performed by the local measuring equipment including the detection head (for example scintillation counter) and its signal transmitter.

Barrier

Any device placed between radioactive substances and the environment in order to prevent or restrict dispersal.

Best Available Techniques (BAT)

BAT means the most effective and advanced stage in the development of activities and their methods of operation which indicate the practical suitability of particular techniques for providing in principle the basis for emission limit values designed to prevent and, where that is not practicable, generally to reduce emissions and the impact on the environment as a whole.

The BAT approach ensures that the cost of applying techniques is not excessive in relation to the environmental protection they provide. It follows that the more environmental damage BAT can prevent, the more the operator can justify spending before the costs are considered excessive.

Break (Guillotine)

A guillotine break refers to a break involving complete severance of a pipe.

Burnup ratio

The ratio, usually expressed as a percentage, of the number of nuclei of one or more chemical elements which disappear through burnup in relation to the initial number of nuclei.

Busbar, bus

Busbar, or bus, is a generic term designating connection devices or switchboards used to distribute a voltage level.

Civil Steel Structure

Set of steel structures which do not act as an equipment support but rather are used for access to equipment, for example platforms, columns and stairwells.

Common cause failure

The failure of at least two structures, systems or components in the execution of their function due to a single specific event or cause

Component

A component is a clearly defined part of a system capable of performing specific sub-functions. Examples of mechanical components are tanks, heat exchangers, pipes, pumps and valves.

Component, active

An active component is a component operated or controlled externally and activated manually or automatically with the assistance of transfer and driving media (e.g. electric current, or hydraulic or pneumatic actuation system). A self-acting component (i.e. one that operates without an external power or control) is considered to be an active component if its position changes when fulfilling its intended function (e.g. a pressure relief valve).

Components, high-energy

High-energy components are those water-, steam carrying components the pressure of which during normal operating conditions of the plant is equal to, or greater than, 20 bar, or the temperature of which during normal operating conditions of the plant is equal to, or greater than, 100°C. Gas carrying components with a pressure above atmospheric pressure are always considered as High-Energy Components. All other components are referred to as low-energy.

Component, passive

Passive components need no actuation and energy supply to perform their function (e.g. pipes, heat exchangers, capacitors, simple non-return valve).

Construction work

Everything constructed or resulting from construction operations. Construction work covers civil engineering works and other engineering works. It includes both structural and non-structural elements.

Controlled area

Area in which workers are likely to receive an annual dose higher than 6 mSv under normal working conditions Controlled areas are divided into four zones: green, yellow, orange and red, according to the relevant dose rate.

Controlled state

For type PCC-2 to PCC-4 events affecting the core, the controlled state is defined as a state when the initial rapid transient is finished and the plant is stabilised. This corresponds to:

- the core being sub-critical (short term re-criticality, before operator actions with only low power can be accepted on a case by case basis),
- Decay heat is being removed (for example by steam generators),
- the core cooling water inventory is stable,
- activity releases remain at an acceptable level.

For PCC-2 to PCC-4 type events affecting the spent-fuel pool, the controlled state is defined as a state characterised by the establishment of decay heat removal from fuel stored in the pool.

Core damage (conditional frequency)

The conditional frequency of core damage is conditional upon the nature of the initiating event. The frequency is calculated by rerunning the probabilistic safety analysis model after setting the unavailability of basic events associated with the inoperable components to “True”, and also adjusting the relevant common cause failure parameters to take account of equipment unavailability due to the initiating event.

Core meltdown (conditional probability)

The conditional probability of core meltdown is conditional upon some event. This probability is calculated by rerunning the probabilistic safety analysis code after setting the unavailability of basic events associated with inoperable equipment components equal to “True”, and configuring the appropriate common cause failure parameters to take account of equipment inoperability due to the initiating event.

Core meltdown, probability

The probability of core meltdown within a time interval is obtained by multiplying the frequency of core meltdown by the length of the time interval.

Corium

Corium refers to the agglomeration of materials produced by core meltdown. Its detailed composition will depend on the core meltdown scenario, but it will normally contain UO_2, fuel element cladding material (Zr and ZrO_2), materials of absorber rods (Cd, B, Ag and steel), steel from core components and the pressure vessel, and fission products.

Crack, stable

A stable (or sub-critical) crack is a longitudinal or circumferential crack whose size does not increase under a given stress or only propagates slowly when it is subjected to a fluctuating stress. The length of a stable crack at the specified stress is less than the critical crack’s length.

Crack, critical size

The critical crack size is the length of the crack beyond which spontaneous crack propagation occurs (at a high propagation rate). The critical crack size depends for example on the stress applied, the material properties and the operating temperatures, and is determined with the aid of fracture mechanics.

Critical Heat Flux ratio

In the reactor core, the critical heat flux ratio is the ratio between the critical heat flux and the actual heat flux at a given point on the surface of the fuel cladding.

Criticality

A medium containing fissionable nuclear material is critical if a nuclear chain reaction is self-sustaining, i.e. if the number of neutrons is stable (production rate = disappearance rate by absorption and external leakages).

Crust formation

An oxidation crust is formed on the surface of the corium when it cools down. Owing to the low heat conductivity of the crust, the subsequent cooling process can be retarded or even terminated.

Design

The design of a component (or of an elementary part of a component) includes the definition of the function or process performed by the component, the role played by the component in performing the function, the layout, the choice of materials and the detailed design of the component.

Design Basis Earthquake (DBE)

Refers to the design spectrum specifying the components of the horizontal acceleration in the design basis earthquake. Equipment which is seismically classified is designed to withstand the motion specified by the design base earthquake spectrum.

Direct containment heating (DCH)

The phenomenon of the direct transfer of thermal energy from corium into the containment atmosphere by dispersion of the corium droplets or aerosol during corium discharge from the pressure vessel.

Diversity

Diversity is the existence of redundant systems, structures or components capable of performing an identified function, which have different attributes so as to reduce common cause failure (including common mode failure) following an initiating event.

Division

This term concerns the layout or the configuration of buildings. The divisions are segregated so that the systems within each division are separated by physical distance or a barrier and thus maintain physical, electrical and functional independence from other redundant systems performing the same function in the other divisions.

Dose / absorbed dose

The dose/absorbed dose is the energy imparted to matter by ionising radiation when it passes through an inert material. In the SI system, the unit of absorbed dose is the gray (Gy), the absorbed dose in a 1-kilogram mass of matter to which ionising radiation imparts uniformly on average an energy of 1 Joule:

1 Gy = 1 J/kg

The conversion of values of absorbed dose to the rad, which is the old unit, is as follows:

1 rad = 10^{-2} Gy

1 Gy = 100 rad

Dose / Dosimetric impact

The dosimetric impact is the total effective dose received during a 50 year period by a whole organism (adult or child) due to 4 types of exposure: radioactive plume, inhalation, exposure to deposited activity and ingestion.

Dose / Effective dose

The effective dose takes into account the different sensitivity of various organs and tissues to ionising radiation. The effective dose is the sum of the equivalent doses transmitted to the various organs and tissues weighted by factors specific to each organ or tissue.

The unit of effective dose is the Sievert (Sv).

The conversion of the equivalent dose to rem, which is the old unit, is as follows:

1 Sv = 1 J/kg = 100 rem

Dose / Equivalent dose in an organ or tissue

The equivalent dose is the product of the dose absorbed in an organ or tissue and a weighting factor that depends on the type of radiation.

In the SI system, the unit of equivalent dose is the Sievert (Sv), which corresponds to an absorbed dose of 1 J/kg for photons.

The conversion of the equivalent dose to rem, which is the old unit, is as follows:

1 Sv = 1 J/kg = 100 rem

Earthquake design

This term refers to the design of the civil engineering structures or equipment against seismic events. The installation must be designed against loads bounding those caused by movements associated with the safe shutdown earthquake (SSE). (See safe shutdown earthquake).

Electrical Power division

The electrical power division is an independent functional part of the normal electrical distribution network.

Electrical supply train

An electrical supply train includes all the components required for the distribution of electricity. Electrical supply trains are independent, and are each allocated to a section within the conventional island or a division within the nuclear island.

Embedded steel parts

This term refers to steel components embedded within a reinforced concrete wall which ensures the interface between the supports and the construction works. Examples are anchor plates, studs and bolts.

Emergency power supply mode

Operating state of the power plant during which electrical equipment is supplied by the emergency diesel generators only.

Equipment

The term equipment designates all the devices, mechanisms, means or resources (except staff) enabling a system to fulfil its function.

Ergonomics

Ergonomics (or the study of Human Factors) is a scientific discipline dealing with the interactions between humans and system components, and applying it to design theories, principles, methods and relevant data in order to improve the welfare of man and the global effectiveness of systems.

Ex-vessel cooling

This refers to stabilising / cooling of a molten pool of corium outside the reactor pressure vessel.

Fault

A fault is a defect in hardware, software or system component. Random faults can be caused by hardware wearing out. Systematic faults may occur due to design errors or to initial equipment imperfections etc. In the case of software, systematic faults may occur due to coding and specification errors.

Final state for RRC-A Analysis

For RRC-A accidents involving multiple failures, the final state is defined as:

- core sub-critical,
- decay heat removed by primary or secondary systems,
- activity release maintained at an acceptable level.

Fire barrier

Fire barriers are fire resistant structures and components such as walls, floors, ceilings, ducts and closures such as doors, smoke dampers, fire dampers, air locks and penetration sealing of the cable trays and pipes.

Fire compartment

A fire compartment is a building or part of a building comprising one or more rooms, delimited by partitions whose fire resistance guarantees that a fire arising inside cannot spread outside or that one arising outside cannot spread inside. All the partitions of a fire compartment must be fire resistant.

Fire zone

A fire zone is a subdivision of a fire compartment, delimited by partitions or boundaries that guarantee that a fire arising inside cannot spread outside or that one arising outside cannot spread inside.

Fragmentation

This term designates the disintegration of the corium into small particles. This phenomenon can be achieved by corium falling into water, or by water, steam or gas injection into the corium.

Functional capability

The ability of all the pressure-bearing parts of a component (active or passive), to withstand the specified loading without experiencing a deformation large enough to impair its safety function or reduce its capacity.

Generator circuit breaker

The circuit breaker located between the step-down transformers (on the high or low voltage side of the main transformer) used to isolate the generator from the station electrical network, for example on normal unit start-up.

Grid breaker

The grid breaker is a circuit breaker located between the power plant and the external grid and is used, for example, to isolate the plant from the grid during house load operation.

Grid connection, Alternative

This refers to the connection of the plant to the external grid in order to receive the required energy for plant shutdown, in the event of the loss of main grid connection containing all elements between auxiliary lines and low voltage terminal of auxiliary (station) transformer.

Grid connection, main

This refers to the connection of the plant to the external high voltage (HTB >50kV) system in order to transmit electrical energy produced by the plant on to the grid network. The connections include all elements between the HTB terminals of the main transformer and the HTB terminals of the step-down (unit) transformers.

H_2 deflagration

Deflagrations are combustion waves in which the unburned gases are heated by thermal conduction across the wave-front to temperatures high enough to produce a chemical reaction. Deflagration waves normally propagate at subsonic speeds and result in quasi-static (nearly steady state) loads being applied to the containment.

H_2 detonation

Detonations are combustion waves in which heating of the unburned gases is caused by shock wave compression. Detonation waves travel at supersonic speed and produce impulsive or dynamic loads on the containment which are additional to quasi-static loads.

H_2 Recombiner

A piece of equipment in which hydrogen reacts with oxygen below the self-ignition temperature in the presence of a catalyst, to form water.

Hazards

Internal hazards are events that originate on the plant site which have the potential to cause adverse conditions or damage on the inside of safety classified buildings (e.g. internal fires or flooding, internal missiles or explosions, etc.). Such effects can result in common cause failures within systems used to reach, or maintain the unit in, a safe state.

External hazards are natural or man induced events originating outside the plant with the potential to adversely affect the safety of the plant, and lead to radiological consequences. Such hazards include earthquakes, aircraft crash, external explosions and external flooding etc.

Heat sink

The atmosphere, a body of water, or a combination of both, into which residual heat is transferred.

- Main heat sink: all mechanical systems necessary to keep the steam generators and the main condenser in operation to evacuate the heat produced by the reactor (e.g. circulating water pumps, start-up and shut-down pumps, condensate extraction pumps …)

- Ultimate heat sink: heat sink to which the residual heat is transferred by the Emergency Service Water System (SEC [ESWS])

- Ultimate Cooling Water Systems (SRU [UCWS]) : the diversified system which transfers the residual heat in case of unavailability of the other sinks

High-pressure core meltdown

A type of core meltdown scenario which causes high pressure failure of the primary circuit.

House load operation

Mode of operation of the plant, following a grid problem, where the electrical energy produced is used only to supply its own electrical auxiliaries, without a link to the grid.

Human Factors Engineering (HFE)

A term used by analogy with the term engineering, to designate the consideration of Human Factors into applied design engineering. This terminology covers objectives, a method, a field of application and a programme. A Human Factors Integration Programme is also referred to.

Human-machine interface (HMI)

The methods by which the operator interacts with a process. The human-machine interface includes the use of conventional or computerised methods for the control and monitoring of the installation (indicators, recordings, alarm windows, displays, controls, etc.)

Ionising radiation

Radiation composed of photons or particles which are capable of causing the formation of ions either directly or indirectly when passing through matter.

Independence

A system or equipment is independent if it has both the following characteristics:

- the ability to perform its required function is not affected by the operation or failure of other equipment;
- The ability to perform its function is not affected by the presence of, or the effects resulting from, the postulated initiating event for which it is required to function;

Initiating event (or postulated initiating event, PIE)

An event potentially affecting the power, the reactivity control, reactor heat removal or containment of radioactive material (PCC-2 to PCC-4 or RRC).

Inspection earthquake

An earthquake level at or below which, verification and inspection of the components important to safety would not be required for maintaining the plant in, or returning it to, normal operation. Adequate provisions must be made at the design stage to allow appropriate inspection and testing to be carried out should an earthquake occur which exceeds the Inspection Earthquake level.

Integrity

Integrity is the ability of all elementary pressure-bearing parts of a component to withstand the specified loadings at a given frequency of occurrence during the lifetime of the component.

Late water injection

The injection of water in a core meltdown accident after the core is already severely damaged.

Leakage

Leakage results from a total localised loss of wall thickness in a pressurised component, either due to a stable (sub-critical) through wall crack, or to the loss of wall thickness (erosion-corrosion). A leak results in the loss of containment capability of a pressurised component which does not cause a break in the pressure boundary.

Leak before break (LBB)

Leak before break describes the situation in which a leak occurs before a complete double-ended break of a component. Although not considered by itself as sufficient to demonstrate break preclusion, which is dependent on the component integrity, demonstration of LBB can provide one element of the safety argument that the potential effect of loss of integrity will be limited and the strength of the pipework is adequate.

Limitation

An automatic function of a preventive nature intended to introduce gradual corrective actions to avoid actuating a protection system, thereby improving plant availability.

N.B.: Limitation functions are not taken into account in carrying out deterministic safety analyses. (See LCO)

LCO (Limiting Condition of Operation)

The LCO concept combines several ideas, namely:

- the LCO bounding value which corresponds to the parameter value assumed in accident analyses,
- LCO monitoring function, which involves controlling parameters within their normal operating range (around their set points),
- LCO function, which designates the control command functions specifically implemented to initiate (manually or automatically) counter-measures in the event of a parameter departing from its normal operating range.

Liquefaction

Liquefaction is a sudden loss of ground rigidity and of ground resistance to shearing when an earthquake occurs, due to ground saturation and loss of cohesion.

Loss of primary coolant accident (LOCA)

LOCA is characterised by a leak or a break in a primary system pipe or by the inadvertent opening of a pressure relief valve or of an isolation valve which results in a loss of primary coolant beyond the capability of the primary circuit water makeup system. LOCA covers break sizes as defined below:

- Small break (SB--LOCA): a break with an equivalent diameter less than or equal to 50 mm;
- Intermediate break (IB-LOCA): a break with an equivalent diameter greater than 50 mm (equivalent cross-sectional area greater than 20 cm2), which is smaller than a large break LOCA;
- Large break (LB-LOCA): a “guillotine” type break of the largest pipe connected to an RCP [RCS] Loop. This corresponds to a surge line break on the hot leg side or an RIS [SIS] line break on the cold leg side.
- 2A LOCA: a double ended break of a reactor coolant system Loop pipe: ‘A’ designates the cross-sectional area of the pipework.

Main secondary system (CSP [MSS])

The main secondary system of the nuclear steam-supply system comprises the secondary volumes within the steam generators and all the pipework which cannot be safely isolated from them, including safety equipment and pressurised equipment which performs an isolating role.

Maintenance

Maintenance includes all the actions, technical, administrative and managerial carried out during the life cycle of an item of equipment, to maintain it or to restore it to a state in which it can accomplish its required function.

Maintenance, corrective

Corrective maintenance refers to actions performed on a failed item of equipment, to restore its functional capability.

As the purpose of corrective maintenance is to correct functional failures, it is always unplanned in nature.

Maintenance, preventive

Preventive maintenance refers to actions performed on an item of equipment with the aim of reducing the likelihood of functional failure. It aims to prevent failures and therefore to achieve a desired availability for the equipment over a fixed period. Preventive maintenance is always scheduled (which does not mean that it is necessarily periodic) and can be either systematic or conditional.

Mechanical stability

Mechanical stability is the ability of a component to resist loads tending to modify its alignment or positioning (for example by causing it to fall, topple, slip or leading to shearing of parts). The mechanical stability of a component encompasses the strength and stability of its supports

Molten Core-Concrete Interaction (MCCI)

Concrete ablation / decomposition following direct contact with molten corium.

Monitored area

Area in which workers are likely to receive an annual dose between 1 and 6 mSv under normal working conditions.

Normal operation

Normal operation refers to the state of a nuclear plant when it is within its normal operational range. This includes normal power operation, shutting down, starting-up, maintenance, testing and refuelling.

Nuclide

A nuclide is a nuclear species characterised by a certain number of protons and neutrons that every atomic nucleus of this species contains. Two atoms of the same nuclide therefore have the same atomic number and same mass number.

Operability

Operability is the capability of an active component and its auxiliary and electrical supporting systems to fulfil the functions essential to achieve its safety objective.

Operating procedures

The set of written and/or electronic documents specifying the tasks to be performed in order to achieve the required functional objectives during normal and abnormal unit operation.

PCC-1 Normal operating transients

These are events occurring during operation of the nuclear plant in its normal operational range. This includes operation at normal power levels, at shutdown and start-up, and during maintenance, testing and reloading activities.

PCC-2 Design basis transients

These are anticipated operational events in which there is a departure from normal operating (PCC-1) conditions, and which might be expected to occur one or more times during the lifetime of the unit. Design provisions ensure that such processes should not cause significant damage to the safety equipment or fission product barriers, or escalate into more serious category PCC-3, PCC-4 or RRC events.

PCC-3 Design basis incidents

These are initiating events that are more severe than PCC-2 transients, whose frequency of occurrence is low enough that they would not be expected to occur during the lifetime of a single unit, but for which the possibility of occurrence cannot be excluded during the lifetime of a group of similar plants.

PCC-4 Design basis accidents

These are initiating events considered in the plant design basis whose frequency of occurrence is so low that they would not be expected to occur during the lifetime of any plant in a group of similar units.

Peak stress

The peak stress at a given point is the difference between the total stress and the stress corresponding to the linear distribution with the same moment and the same average value.

The basic characteristic of a peak stress is that it cannot cause any general distortion. Peak Stress is therefore taken into account only if fatigue or fast fracture is considered. In fact, it is the total stress at a given point resulting from all applied loads which are taken into account in the determination of resistance to fatigue and fast fracture.

Plant condition categories PCC-1 to PCC-4

The PCCs are initiating events which are used as the design basis for the safety systems, structures and components that are provided to reduce the radiological risk due to the EPR installation. The PCCs are grouped into Categories 1-4 depending on their anticipated frequency of occurrence, as follows:

PCC-1: Normal operating transients

PCC-2: Design basis transients

PCC-3: Design basis incidents

PCC-4: Design basis accidents

Plant power supply system

The set of items necessary for the supply of power to the plant's electrical equipment between the high voltage terminals of the step-down (unit) and auxiliary (station) transformers (HTA, 50kV) and the terminals of the receivers. The normal power supply system is divided into normal and emergency electrical supply systems.

Power supply system, emergency

The emergency electrical supply system includes all the systems and equipment necessary to supply power to equipment carrying out the safety functions (e.g. establishment of a safe shutdown state, removal of residual heat and prevention of radioactive release) in the event of the normal power supply system being unavailable. Power for the emergency electrical supply system is supplied by the emergency diesel generators.

Power supply system, off-site

The off-site power supply system contains the main and auxiliary systems grid connections.

Power supply system, on-site

The on-site power supply system refers to all the power sources installed inside the plant (except for the main alternator) that are available to supply emergency power to the plant engineered safety features.

Power supply system, normal

The normal power supply system is part of the plant's electrical system. It includes all the electrical systems and equipment necessary for the supply to the auxiliaries.

Practical Elimination

Practical Elimination refers to the implementation of specific design measures to reduce the risk of a large early release of radioactive material to atmosphere to an insignificant level. To achieve Practical Elimination, each type of accident sequence that could lead to a large early release of radioactivity must be examined and addressed by design measures. Demonstration of Practical Elimination of an accident sequence may involve deterministic and/or probabilistic considerations, and must take into account uncertainties due to the limited knowledge of physical phenomena involved in severe accident analysis.

Primary stress

Primary stresses are the category of stresses that contribute directly to maintaining the equilibrium of mechanical loads. For this reason, they continue to exist in the event of plastic deformation and a further increase of the external loads will cause a significant increase in deformation which is not self-limiting. When the primary stresses exceed the yield strength of the material, there is a risk of excessive deformation.

Protected evacuation route

A protected evacuation route is a transit area protected from the effects of fire. Such routes are principally protected corridors or protected stairwells.

Protected rescue route

A protected rescue route is an area protected against the effects of a fire. Protected rescue routes are protected corridors or stairwells.

Qualification

A process of verification ensuring that an item of equipment meeting certain performance demands will function correctly and sufficiently reliably on demand, taking into account the environmental conditions to which it will be exposed, including severe accident conditions.

Quenching

The rapid cool down of a hot liquid or solid by immersion in, or contact with, water

Radioactive period (or half-life) of a radioactive nuclide

The half-life is the period at the end of which half of the initial quantity of a radionuclide has disintegrated. It is a fixed characteristic of a radionuclide.

Radioactivity

The phenomenon of spontaneous transformation of a nuclide with the emission of ionising radiation.

Radionuclide

A radionuclide is a radioactive nuclide.

Reactor Coolant Pressure Boundary (CPP [RCPB])

The Reactor Coolant Pressure Boundary consists of the primary circuit and all connecting lines up to and including the second isolation valve or the second pilot-operated safety valve.

Reactor states, standard

In defining initiating events considered in the design basis for the unit, standard reactor states A-F are defined as follows:

- State A: at-power condition or hot or intermediate shutdown condition with all the reactor's automatic protection functions available. (Certain functions can be unavailable at low pressure),
- State B: intermediate shutdown above 120° C, shutdown cooling system not connected. (Certain of the reactor's automatic protection functions can be unavailable),
- State C: intermediate shutdown and cold shutdown with the shutdown cooling system operational and a primary circuit which is intact or capable of being quickly made intact,
- State D: cold shutdown with primary circuit open (i.e. not intact),
- State E: cold shutdown with filled reactor pool,

- State F: cold shutdown with reactor core completely unloaded.

Redundancy

The provision of a number of systems, structures or components (identical or diverse), so that any one can perform the required function, regardless of the state of operation or failure of any other.

Release target

Target for maximum fission product release into the environment allowable during a severe accident. In general this target is initially set one order of magnitude below the value required to meet a certain environmental dose rate specified during the severe accident.

Risk Reduction Categories: RRC-A and RRC-B

Event sequences involving multiple failures, which extend the design and safety assessment of the NI against the Plant Initiating Events, are categorised into two Risk Reduction Categories. These are:

- RRC–A: Prevention of core melt
- RRC–B: Prevention of large releases in core melt cases

(RRC-B sequences are referred to as severe accidents)

Sacrificial material

Sacrificial material refers to a form of concrete which has physical and chemical characteristics which make it capable of ensuring the long-term retention of the corium. This material is consumed on contact with molten corium.

Safe shutdown earthquake (SSE)

The safe shutdown earthquake is the maximum ground motion considered in the seismic design of the unit. For the Flamanville 3 EPR the intensity of the safe shutdown earthquake is taken as equal to that of the SMHV (maximum historically probable earthquake) increased by one unit (MSK scale). For the UK EPR the safe shutdown earthquake will be derived for the specific UK site chosen for the unit based on a postulated seismic event with a 1 in 10,000 year return frequency, as required by UK safety licensing practices.

Safe shutdown State

For PCC-2 to PCC-4 type events, the safe shutdown state is defined as:

- core sub-critical,
- decay heat removed,
- activity release maintained at an acceptable level.

For PCC-2 to PCC-4 type events affecting the spent-fuel pool, safe shutdown is defined as being a state in which decay heat is being removed from the fuel stored in the pool by at least one train of PTR [FPCS] cooling.

Scabbing

Scabbing is the ejection of irregularly shaped fragments from the surface of a structure due to the impact of a missile on the opposite side of the structure.

Secondary stress

These are stresses that must be limited in order to ensure general structural integrity.

Secondary stresses are associated with the relative deformations in parts adjacent to a component (or zone) arising when the component (or zone) is subjected to mechanical loads or thermal expansion. Secondary stresses are characterised by the production of self-limiting plastic deformations when the yield stress is exceeded.

Segregation

The physical separation of components and systems, by distance or by some form of barrier that reduces the likelihood of common cause failure.

Separation, geographical

Two items of equipment are considered geographically separated if the distance between them is such that their simultaneous loss, in the event of a hazard or other initiating event, need not be considered. The value of 'sufficient separation distance' depends on the hazard or initiating event (PIE) under consideration.

Separation, physical

Physical separation of two items of equipment refers to their separation by means of an appropriate barrier (e.g. a wall).

Severe accident

A severe accident or RRC-B sequence refers to any sequence leading to at least partial core meltdown, which could consequently result in a large radiological release to the environment.

Single failure

A single failure is an independent failure that results in the loss of capability of a component to perform its intended safety function.

Source term

The source term is the inventory of radioactive products inside and outside the containment, which must be considered in the calculation of the radiological consequences of accidents.

Stratification

Stratification describes the phenomenon of local separation of gaseous or non-miscible liquid components into regions/layers of different compositions and temperatures.

Sub-assembly

A sub-assembly is a part of a component composed of elementary parts.

Support

Supports are metal structures which are not integral parts of the specific item of equipment. Movable supports allow relative motion between the supported equipment and the supporting structure in the direction of the reaction. Rigid supports transmit the reaction from the equipment to the construction works.

They include for example: metal structures with support functions for mechanical equipment, pipe whip restraints, hangers and dampers.

Support, integral

Supports which are bolted, pinned or clamped to the pressure retaining component, or which are mechanically attached to an integral mounting cast or forged integrally with the pressure retaining component.

Supports which can directly support components.

Switchgear

The switchgear encompasses all the electrical connection components installed in cubicles, including in particular: connection terminals, incoming and outgoing feeders, circuit breakers, earthing switches, copper busbars, measuring devices, auxiliary relays, etc.

System

A system is a set of components which form a unit capable of performing specific functions within the plant.

System, safety classified

A system is defined as being safety classified if it is classified according to functional requirements (F1 or F2) or mechanical requirements (M1, M2 or M3).

Note: If only restricted parts of the system are classified according to functional or barrier requirements (e.g. containment isolation, (CPP [RCPB]) isolation, secondary side isolation), the system is not called safety classified.

System, protection

A protection system comprises all the electrical and mechanical devices and circuitry (from sensors to actuation device and input terminals) involved in the monitoring of safety parameters and generating signals associated with the protective function, whatever the state of the unit.

Systems or equipment, operational

The operational systems or equipment refer to the systems or equipment that are used for the normal operation of the plant and are not safety classified (NC).

System, support

A support system enables the main function of a safety or operating system, for example: electric power supply, cooling, lubrication or control.

System software

System software is software designed for a specific computer based system, or for a family of computer systems, to facilitate operation and maintenance of the computer system and of its associated programmes.

Thermal and mechanical loadings

Mechanical and thermal loadings are forces and moments, imposed deformations and non-uniform temperature distributions that induce stresses and strains within a component.

Mechanical loadings (including thermal expansion loadings) can produce primary or secondary stresses; thermal loadings only produce secondary stresses.

Total loss of internal and external electrical power supplies (Station Black Out)

This refers to a loss of the external (off-site) electrical power supplies combined with coincident failure of all 4 emergency diesel generators, which results in a total loss of power to the emergency and non-emergency 10kV busbars.

Transformer, auxiliary (station)

Transformer to supply power to the HTA (<50kV) electrical networks which enables plant shutdown when the main grid and the alternator are unavailable.

Transformer, step down (unit)

Transformer to supply power to the HTA (<50kV) electrical networks in all operational states when the main grid or the alternator are supplying a voltage within the admissible limits.

Transformer, main

Transformer used to adapt the main generator voltage to the high voltage (HTB) of the main grid.

Type C (partial) leak resistance test

Type C (partial) leak resistance tests are tests designed to detect and measure localised leaks by means of specific containment isolating valves.

Validation

The testing and evaluation of an integrated computer system (hardware and software) to ensure compliance with its functional, performance and interface requirements.

Verification

A process which determines whether, at a given stage of development, a product fulfils all the requirements set at the previous stage of development.

Voltage, nominal

The nominal voltage is the voltage between phases for which a network is designed.

Voltage, operational

The operational voltage is the adjusted voltage at the busbars during normal operation.

3. GLOSSARY

3.1. CODING SYSTEM AND ACRONYMS USED FOR SYSTEMS

Where no EPR common acronym exists for a system, only the ECS (EDF Coding System) code is given.

3.1.1. EDF Coding System / EPR acronyms

EDF CODING SYSTEM (ECS)	EPR ACRONYM	DESCRIPTION
AAD	SSS	STARTUP AND SHUTDOWN FEEDWATER SYSTEM
ABP	*	LOW PRESSURE FEEDWATER HEATER SYSTEM
ADG	*	FEEDWATER TANK
ADP	*	LOW PRESSURE FEEDWATER SYSTEM
AHP	*	HIGH PRESSURE FEEDWATER PLANT AND HEATER SYSTEM PUMP
APA	MFWPS	MOTOR-DRIVEN FEEDWATER PUMP SYSTEM
APG	SGBS	STEAM GENERATOR BLOW DOWN SYSTEM
ARE	MFWS	MAIN FEEDWATER SYSTEM
ASG	EFWS	EMERGENCY FEEDWATER SYSTEM
ATD	*	START-UP CONDENSATE AND FEEDWATER PURIFICATION SYSTEM
CET	*	TURBINE GLAND SYSTEM
CEX	*	CONDENSER AND CONDENSER EXTRACTION SYSTEM
CFI	CWFS	CIRCULATION WATER FILTRATION SYSTEM
CPP	RCPB	REACTOR COOLANT PRESSURE BOUNDARY
CRF	*	CIRCULATION WATER SYSTEM
CSP	SSPB	SECONDARY SYSTEM PRESSURE BOUNDARY
CTE	*	CIRCULATION WATER TREATMENT
CVI	*	CONDENSER VACUUM
DCL	CRACS	CONTROL ROOM AIR CONDITIONING SYSTEM
DEA	SSSS	STANDSTILL SEAL SYSTEM
DEL	SCWS	SAFETY CHILLED WATER SYSTEM
DEQ	*	CHILLED WATER SYSTEM FOR THE EFFLUENT TREATMENT BUILDING
DER	*	OPERATIONAL CHILLED WATER SYSTEM
DFL	*	SMOKE CONTROL SYSTEM
DMK	*	HANDLING EQUIPMENT AND PLANT FOR THE FUEL BUILDING
DN.	*	NORMAL LIGHTING FOR BUILDING AND OPEN AREAS OF SITE;
DS.	*	EMERGENCY LIGHTING FOR BUILDING AND OPEN AREAS OF SITE
DTV	*	COMMUNICATION SYSTEM
DVD	*	MAIN DIESEL AND SBO DIESEL BUILDING VENTILATION SYSTEM

EDF CODING SYSTEM (ECS)	EPR ACRONYM	DESCRIPTION
DVL	SBVSE	SAFEGUARD BUILDING UNCONTROLLED AREA VENTILATION SYSTEM
DVP	*	CIRCULATING WATER PUMPING STATION VENTILATION SYSTEM
DWB	*	OPERATING BUILDING CONTAMINABLE ROOM VENTILATION SYSTEM
DWK	FBVS	FUEL BUILDING VENTILATION SYSTEM
DWL	CSBVS	SAFEGUARD BUILDING CONTROLLED AREA VENTILATION SYSTEM
DWN	NABVS	NUCLEAR AUXILIARY BUILDING VENTILATION SYSTEM
DWQ	ETBVS	EFFLUENT TREATMENT BUILDING VENTILATION SYSTEM
DWW	ABVS	ACCESS BUILDING CONTROLLED AREA VENTILATION SYSTEM
EBA	CSVS	CONTAINMENT SWEEP VENTILATION SYSTEM
EDE	AVS	ANNULUS VENTILATION SYSTEM
EPP	*	LEAK RATE CONTROL AND TESTING
ETY	CGCS	COMBUSTIBLE GAS CONTROL SYSTEM
EVF	*	RB INTERNAL FILTRATION SYSTEM
EVR	CCVS	CONTAINMENT COOLING VENTILATION SYSTEM
EVU	CHRS	CONTAINMENT HEAT REMOVAL SYSTEM
GCT	MSB	MAIN STEAM BY-PASS
GEA	*	TURBINE GROUP AUXILIARY TRANSFORMER
GEV	*	TURBINE GROUP POWER TRANSMISSION SYSTEM
GPA	*	GENERATOR AND TRANSFORMER PROTECTION SYSTEM
GRE	*	TURBINE GOVERNING SYSTEM
GRV	*	HYDROGEN DISTRIBUTION SYSTEM (CONVENTIONAL ISLAND)
GSE	*	TURBINE PROTECTION SYSTEM
GSS	*	REHEATER SYSTEM
JAC	*	FIRE FIGHTING WATER SUPPLY SYSTEM
JDT	FDS	FIRE DETECTION SYSTEM
JP.	*	FIRE FIGHTING SYSTEM
JPD	*	FIRE FIGHTING SYSTEM FOR NON-CLASSIFIED BUILDINGS
JPH	*	TURBINE HALL OIL TANK FIRE FIGHTING SYSTEM
JPI	NIFPS	PROTECTION AND DISTRIBUTION OF NI FIRE FIGHTING SYSTEM
JPS	*	DISTRIBUTION OF FIRE-FIGHTING WATER FOR THE SITE
JPT	*	TRANSFORMER FIRE PROTECTION
JPV	*	DIESEL FIRE PROTECTION
KC	*	I&C EQUIPMENT
KER	LRMDS	LIQUID RADWASTE MONITORING AND DISCHARGE SYSTEM
KIC	*	I&C EQUIPMENT FOR COMPUTERISED OPERATION
KKK	*	SITE AND BUILDING ACCESS CONTROL SYSTEM
KRC	*	BODY CONTAMINATION AND DOSIMETRY CONTROL SYSTEM
KRH	*	HYDROGEN DETECTION SYSTEM

EDF CODING SYSTEM (ECS)	EPR ACRONYM	DESCRIPTION
KRT	PRMS	PLANT RADIATION MONITORING SYSTEM
KSC	*	CONTROL ROOMS
LA.	*	PRODUCTION AND DISTRIBUTION OF ELECTRICITY AT 220 V DC
LG.	*	10 KV DISTRIBUTION NUCLEAR ISLAND AND CONVENTIONAL ISLAND
LH.	*	10 KV SAFETY DISTRIBUTION NUCLEAR ISLAND AND CONVENTIONAL ISLAND
LI.	*	690 V ALTERNATE NORMAL DISTRIBUTION
LJ.	*	690 V SAFETY DISTRIBUTION NUCLEAR ISLAND AND CONVENTIONAL ISLAND
LJK/ LJN	*	690V BUSBAR IN ELECTRICAL DIVISIONS 1 AND 4
LK.	*	400 V AC NORMAL DISTRIBUTION (UNDER LG. BOARD)
LL.	*	BACKED UP 400 V DISTRIBUTION NUCLEAR ISLAND;
LO.	*	400V AC REGULATED DISTRIBUTION
LTR	*	EARTH CIRCUIT
LV.	*	UNINTERRUPTED 400V PRODUCTION AND DISTRIBUTION NUCLEAR ISLAND;
MCP	PICS	PROCESS INFORMATION AND CONTROL SYSTEM
MCS	SICS	SAFETY INFORMATION AND CONTROL SYSTEM
PTR	FPC(P)S	FUEL POOL COOLING (AND PURIFICATION) SYSTEM
RBS	EBS	EXTRA BORATION SYSTEM
RCP	RCS	REACTOR COOLANT SYSTEM
RCV	CVCS	CHEMICAL AND VOLUME CONTROL SYSTEM
REA	RBWMS	REACTOR BORON AND WATER MAKE-UP SYSTEM
REN	NSS	NUCLEAR SAMPLING SYSTEM
RES	*	STEAM GENERATOR SECONDARY SAMPLING SYSTEM
RGL	CRDM	CONTROL ROD DRIVE MECHANISM
RIC	*	INCORE INSTRUMENTATION SYSTEM
RIS	SIS	SAFETY INJECTION SYSTEM
RIS/RRA	SIS/RHRS	SAFETY INJECTION SYSTEM OPERATING IN RESIDUAL HEAT REMOVAL MODE
RPE	NVDS	NUCLEAR VENT AND DRAIN SYSTEM
RPN	NIS	NUCLEAR INSTRUMENTATION SYSTEM
RPR	PS	PROTECTION SYSTEM
RRA	RHRS	RESIDUAL HEAT REMOVAL SYSTEM
RRI	CCWS	COMPONENT COOLING WATER SYSTEM*
SAP	*	COMPRESSED AIR PRODUCTION SYSTEM
SAR	*	COMPRESSED AIR SYSTEM
SAS	*	SAFETY AUTOMATION SYSTEM
SAT	*	SERVICE COMPRESSED AIR DISTRIBUTION SYSTEM
SDA	*	NUCLEAR ISLAND DEMINERALISED WATER DISTRIBUTION SYSTEM
SDS	*	DEMINERALISED SEAWATER PRODUCTION SYSTEM
SEA	*	DEMINERALISATION PLANT WATER SUPPLY SYSTEM
SEC	ESWS	ESSENTIAL SERVICE WATER SYSTEM
SED	*	NUCLEAR ISLAND DEMINERALISED WATER DISTRIBUTION SYSTEM

EDF CODING SYSTEM (ECS)	EPR ACRONYM	DESCRIPTION
SEF	*	INTAKE COARSE FILTRATION AND TRASH REMOVAL SYSTEM
SEH	*	COLLECTION OF OILS AND HYDROCARBON EFFLUENTS (INCLUDING STORAGE)
SEK	CILWDS	CONVENTIONAL ISLAND LIQUID WASTE DISCHARGE SYSTEM
SEK	SiteLWDS	SITE LIQUID WASTE DISCHARGE SYSTEM
SEL	*	ELECTRICALLY HEATED HOT WATER SYSTEM
SEN	*	AUXILIARY (RAW WATER) COOLING SYSTEM
SEO	*	PLANT SEWER SYSTEM
SEP	*	POTABLE WATER SYSTEM
SER	*	CONVENTIONAL ISLAND DEMINERALISED WATER DISTRIBUTION SYSTEM
SFI	*	RAW WATER FILTRATION SYSTEM
SG.	*	OTHER GAS SYSTEMS
SGC	*	CARBON DIOXIDE DISTRIBUTION SYSTEM
SGH	*	HYDROGEN DISTRIBUTION SYSTEM (NUCLEAR ISLAND)
SGN	*	NITROGEN DISTRIBUTION SYSTEM
SGO	*	OXYGEN DISTRIBUTION SYSTEM
SIR	*	CHEMICAL CONDITIONING (INJECTION WITH REAGENT
SIT	*	CHEMICAL SAMPLING AND MONITORING SYSTEM
SNL	*	STEAM GENERATOR CLEANING – LANCING
SRI	*	CONVENTIONAL ISLAND CLOSED COOLING WATER SYSTEM
SRU	UCWS	ULTIMATE COOLING WATER SYSTEM
TEG	GWPS	GASEOUS WASTE PROCESSING SYSTEM
TEN	*	EFFLUENT TREATMENT BUILDING SAMPLING SYSTEM
TEP	CSTS	COOLANT STORAGE AND TREATMENT SYSTEM
TEP1	CSS	COOLANT STORAGE AND SUPPLY SYSTEM
TEP2	CPS	COOLANT PURIFICATION SYSTEM
TEP3/5/6	CTS	COOLANT TREATMENT SYSTEM
TEP4	CDS	COOLANT DEGASIFICATION SYSTEM
TER	ExLWDS	ADDITIONAL LIQUID WASTE DISCHARGE SYSTEM
TES	SWTS	SOLID WASTE TREATMENT SYSTEM
TEU	LWPS	LIQUID WASTE PROCESSING SYSTEM
TRI	*	EFFLUENT TREATMENT BUILDING CLOSED COOLING WATER SYSTEM
VDA	MSRT	MAIN STEAM RELIEF TRAIN
VIV	MSIV	MAIN STEAM ISOLATION VALVE
VVP	MSSS	MAIN STEAM SUPPLY SYSTEM

3.1.2. EPR acronyms / EDF coding system

EPR ACRONYM	EDF CODING SYSTEM (ECS)	DESCRIPTION
ABVS	DWW	ACCESS BUILDING CONTROLLED AREA VENTILATION SYSTEM

EPR ACRONYM	EDF CODING SYSTEM (ECS)	DESCRIPTION
AVS	EDE	ANNULUS VENTILATION SYSTEM
CCVS	EVR	CONTAINMENT COOLING VENTILATION SYSTEM
CCWS	RRI	COMPONENT COOLING WATER SYSTEM
CDS	TEP4	COOLANT DEGASIFICATION SYSTEM
CGCS	ETY	COMBUSTIBLE GAS CONTROL SYSTEM
CHRS	EVU	CONTAINMENT HEAT REMOVAL SYSTEM
CILWDS	iSEK	CONVENTIONAL ISLAND LIQUID WASTE DISCHARGE SYSTEM
CPS	TEP2	COOLANT PURIFICATION SYSTEM
CRACS	DCL	CONTROL ROOM AIR CONDITIONING SYSTEM
CRDM	RGL	CONTROL ROD DRIVE MECHANISM
CSBVS	DWL	SAFEGUARD BUILDING CONTROLLED AREA VENTILATION SYSTEM
CSS	TEP1	COOLANT STORAGE AND SUPPLY SYSTEM
CSTS	TEP	COOLANT STORAGE AND TREATMENT SYSTEM
CSVS	EBA	CONTAINMENT SWEEP VENTILATION SYSTEM
CTS	TEP3/5/6	COOLANT TREATMENT SYSTEM
CVCS	RCV	CHEMICAL AND VOLUME CONTROL SYSTEM
CWFS	CFI	CIRCULATION WATER FILTRATION SYSTEM
EBS	RBS	EXTRA BORATION SYSTEM
EFWS	ASG	EMERGENCY FEEDWATER SYSTEM
ESWS	SEC	ESSENTIAL SERVICE WATER SYSTEM
ETBVS	DWQ	EFFLUENT TREATMENT BUILDING VENTILATION SYSTEM
ExLWDS	TER	ADDITIONAL LIQUID WASTE DISCHARGE SYSTEM
FBVS	DWK	FUEL BUILDING VENTILATION SYSTEM
FDS	JDT	FIRE DETECTION SYSTEM
FPC(P)S	PTR	FUEL POOL COOLING (AND PURIFICATION) SYSTEM
GWPS	TEG	GASEOUS WASTE PROCESSING SYSTEM
LRMDS	KER	LIQUID RADWASTE MONITORING AND DISCHARGE SYSTEM
LWPS	TEU	LIQUID WASTE PROCESSING SYSTEM
MFWPS	APA	MOTOR-DRIVEN FEEDWATER PUMP SYSTEM
MFWS	ARE	MAIN FEEDWATER SYSTEM
MSB	GCT	MAIN STEAM BY-PASS
MSIV	VIV	MAIN STEAM ISOLATION VALVES
MSRT	VDA	MAIN STEAM RELIEF TRAIN
MSSS	VVP	MAIN STEAM SUPPLY SYSTEM
NABVS	DWN	NUCLEAR AUXILIARY BUILDING VENTILATION SYSTEM
NIFPS	JPI	PROTECTION AND DISTRIBUTION OF NI FIRE FIGHTING SYSTEM
NIS	RPN	NUCLEAR INSTRUMENTATION SYSTEM
NSS	REN	NUCLEAR SAMPLING SYSTEM
NVDS	RPE	NUCLEAR VENT AND DRAIN SYSTEM
PICS	MCP	PROCESS INFORMATION AND CONTROL SYSTEM
PRMS	KRT	PLANT RADIATION MONITORING SYSTEM

EPR ACRONYM	EDF CODING SYSTEM (ECS)	DESCRIPTION
PS	RPR	PROTECTION SYSTEM
RBWMS	REA	REACTOR BORON AND WATER MAKE-UP SYSTEM
RCPB	CPP	REACTOR COOLANT PRESSURE BOUNDARY
RCS	RCP	REACTOR COOLANT SYSTEM
RHRS	RRA	RESIDUAL HEAT REMOVAL SYSTEM
SBVSE	DVL	SAFEGUARD BUILDING UNCONTROLLED AREA VENTILATION SYSTEM
SCWS	DEL	SAFETY CHILLED WATER SYSTEM
SGBS	APG	STEAM GENERATOR BLOW DOWN SYSTEM
SICS	MCS	SAFETY INFORMATION AND CONTROL SYSTEM
SIS	RIS	SAFETY INJECTION SYSTEM
SIS/RHRS	RIS/RRA	SAFETY INJECTION SYSTEM OPERATING IN RESIDUAL HEAT REMOVAL MODE
SiteLWDS	0SEK	SITE LIQUID WASTE DISCHARGE SYSTEM
SSS	AAD	STARTUP AND SHUTDOWN FEEDWATER SYSTEM
SSSS	DEA	STANDSTILL SEAL SYSTEM
SWTS	TES	SOLID WASTE TREATMENT SYSTEM
UCWS	SRU	ULTIMATE COOLING WATER SYSTEM
*	ABP	LOW PRESSURE FEEDWATER HEATER SYSTEM
*	ADG	FEEDWATER TANK
*	ADP	LOW PRESSURE FEEDWATER SYSTEM
*	AHP	HIGH PRESSURE FEEDWATER PLANT AND HEATER SYSTEM PUMP
*	ATD	START-UP CONDENSATE AND FEEDWATER PURIFICATION SYSTEM
*	CET	TURBINE GLAND SYSTEM
*	CEX	CONDENSER AND CONDENSER EXTRACTION SYSTEM
*	CRF	CIRCULATION WATER SYSTEM
*	CTE	CIRCULATING WATER TREATMENT
*	CVI	CONDENSER VACUUM
*	DEQ	CHILLED WATER SYSTEM FOR THE EFFLUENT TREATMENT BUILDING
*	DER	OPERATIONAL CHILLED WATER SYSTEM
*	DFL	SMOKE CONTROL SYSTEM
*	DMK	HANDLING EQUIPMENT AND PLANT FOR THE FUEL BUILDING
*	DN.	NORMAL LIGHTING FOR BUILDING AND OPEN AREAS OF SITE;
*	DS.	EMERGENCY LIGHTING FOR BUILDING AND OPEN AREAS OF SITE;
*	DTV	COMMUNICATION SYSTEM
*	DVD	MAIN DIESEL AND SBO DIESEL BUILDING VENTILATION SYSTEM
*	DVP	CIRCULATING WATER PUMPING STATION VENTILATION SYSTEM
*	DWB	OPERATING BUILDING CONTAMINABLE ROOM VENTILATION SYSTEM
*	EPP	LEAK RATE CONTROL AND TESTING
*	EVF	RB INTERNAL FILTRATION SYSTEM
*	GEA	TURBINE GROUP AUXILIARY TRANSFORMER

EPR ACRONYM	EDF CODING SYSTEM (ECS)	DESCRIPTION
*	GEV	TURBINE GROUP POWER TRANSMISSION SYSTEM
*	GPA	GENERATOR AND POWER TRANSMISSION PROTECTION SYSTEM
*	GRE	TURBINE GOVERNING SYSTEM
*	GRV	HYDROGEN DISTRIBUTION SYSTEM (CONVENTIONAL ISLAND)
*	GSE	TURBINE PROTECTION SYSTEM
*	GSS	REHEATER SYSTEM
*	JAC	FIRE FIGHTING WATER SUPPLY SYSTEM
*	JP.	FIRE FIGHTING SYSTEM
*	JPD	FIRE FIGHTING SYSTEM FOR NON-CLASSIFIED BUILDINGS
*	JPH	TURBINE HALL OIL TANK FIRE FIGHTING SYSTEM
*	JPS	DISTRIBUTION OF FIRE-FIGHTING WATER FOR THE SITE
*	JPT	TRANSFORMER FIRE PROTECTION
*	JPV	DIESEL FIRE PROTECTION
*	KC	I&C EQUIPMENT
*	KIC	I&C EQUIPMENT FOR COMPUTERISED OPERATION
*	KKK	SITE AND BUILDING ACCESS CONTROL SYSTEM
*	KRC	BODY CONTAMINATION AND DOSIMETRY CONTROL SYSTEM
*	KRH	HYDROGEN DETECTION SYSTEM
*	KSC	CONTROL ROOMS
*	LA.	PRODUCTION AND DISTRIBUTION OF ELECTRICITY AT 220 V DC
*	LG.	10 KV DISTRIBUTION NUCLEAR ISLAND AND CONVENTIONAL ISLAND
*	LH.	10 KV SAFETY DISTRIBUTION NUCLEAR ISLAND AND CONVENTIONAL ISLAND
*	LI.	690 V ALTERNATE NORMAL DISTRIBUTION;
*	LJ.	690 V SAFETY DISTRIBUTION NUCLEAR ISLAND AND CONVENTIONAL ISLAND
*	LJK/ LJN	690V BUSBAR IN ELECTRICAL DIVISIONS 1 AND 4,
*	LK.	400 V AC NORMAL DISTRIBUTION (UNDER LG. BOARD)
*	LL.	BACKED UP 400 V DISTRIBUTION NUCLEAR ISLAND;
*	LO.	400V AC REGULATED DISTRIBUTION
*	LTR	EARTH CIRCUIT
*	LV.	UNINTERRUPTED 400V PRODUCTION AND DISTRIBUTION NUCLEAR ISLAND;
*	NIFPS	FIRE FIGHTING WATER SYSTEM
*	RES	STEAM GENERATOR SECONDARY SAMPLING SYSTEM
*	RIC	INCORE INSTRUMENTATION SYSTEM
*	SAP	COMPRESSED AIR PRODUCTION SYSTEM
*	SAR	COMPRESSED AIR SYSTEM
*	SAS	SAFETY AUTOMATION SYSTEM
*	SAT	SERVICE COMPRESSED AIR DISTRIBUTION SYSTEM
*	SDA	NUCLEAR ISLAND DEMINERALISED WATER DISTRIBUTION SYSTEM

EPR ACRONYM	EDF CODING SYSTEM (ECS)	DESCRIPTION
*	SDS	DEMINERALISED SEAWATER PRODUCTION SYSTEM
*	SEA	DEMINERALISATION PLANT WATER SUPPLY SYSTEM
*	SED	NUCLEAR ISLAND DEMINERALISED WATER DISTRIBUTION SYSTEM
*	SEF	INTAKE COARSE FILTRATION AND TRASH REMOVAL SYSTEM
*	SEH	COLLECTION OF OILS AND HYDROCARBON EFFLUENTS (INCLUDING STORAGE)
*	SEL	ELECTRICALLY HEATED HOT WATER SYSTEM
*	SEN	AUXILIARY (RAW WATER) COOLING SYSTEM
*	SEO	PLANT SEWER SYSTEM
*	SEP	POTABLE WATER SYSTEM
*	SER	CONVENTIONAL ISLAND DEMINERALISED WATER DISTRIBUTION SYSTEM
*	SFI	RAW WATER FILTRATION SYSTEM
*	SG.	OTHER GAS SYSTEMS (OXYGEN GAS DISTRIBUTION SYSTEM, NITROGEN GAS DISTRIBUTION SYSTEM, HYDROGEN GAS DISTRIBUTION SYSTEM)
*	SGC	CARBON DIOXIDE DISTRIBUTION SYSTEM
*	SGH	HYDROGEN DISTRIBUTION SYSTEM (NUCLEAR ISLAND)
*	SGN	NITROGEN DISTRIBUTION SYSTEM
*	SGO	OXYGEN DISTRIBUTION SYSTEM
*	SIR	CHEMICAL CONDITIONING (INJECTION WITH REAGENT
*	SIT	CHEMICAL SAMPLING AND MONITORING SYSTEM
*	SNL	STEAM GENERATOR CLEANING - LANCING
*	SRI	CONVENTIONAL ISLAND CLOSED COOLING WATER SYSTEM
*	TEN	EFFLUENT TREATMENT BUILDING SAMPLING SYSTEM
*	TRI	EFFLUENT TREATMENT BUILDING CLOSED COOLING WATER SYSTEM

3.2. ACRONYMS USED FOR BUILDINGS

ACRONYM	DESCRIPTION
DB	DIESEL BUILDING
ETB	EFFLUENT (WASTE) TREATMENT BUILDING
FB	FUEL BUILDING
NAB	NUCLEAR AUXILIARY BUILDING
RB	REACTOR BUILDING
SB	SAFEGUARD BUILDING

3.3. OTHER GENERAL ACRONYMS USED IN THE SSER

ACRONYM	DESCRIPTION
AC	ALTERNATING CURRENT
ACOP	APPROVED CODES OF PRACTICE
ACRS	ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
ACT	AVERAGE COOLANT TEMPERATURE
AD	AUTOMATIC DIAGNOSIS
ADS	APPROVED DOSIMETRY SERVICE
AED	AERODYNAMIC EQUIVALENT DIAMETER
AFCEN	FRENCH ASSOCIATION FOR CODES AND STANDARDS
AICC	ADIABATIC ISOCHORIC COMPLETE COMBUSTION
ALARA	AS LOW AS REASONABLY ACHIEVABLE
ALARP	AS LOW AS REASONABLY PRACTICABLE
ALU	ACTUATION LOGIC UNIT
ALWR	ADVANCED LIGHT WATER REACTORS
AMS	AEROBALL MEASURING SYSTEM
ANS	AMERICAN NUCLEAR SOCIETY
AO	AXIAL OFFSET
AOA	AXIAL OFFSET ANOMALY
AP	ACTIVATION PRODUCT
APC	AIRPLANE CRASH
API	AXIAL POWER IMBALANCE
APU	ACQUISITION AND PROCESSING UNIT
ARI	ALL RODS IN
ARO	ALL RODS OUT
ASCC	AEROBALL SYSTEM CONTROL COMPUTER
ASEP	ACCIDENT SEQUENCE EVALUATION PROGRAM
ASF	ACTIVE SINGLE FAILURE
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASN	AUTORITÉ DE SÛRETÉ NUCLÉAIRE (French Nuclear Safety Authority)
AU / CU / DU	ACQUISITION UNIT / CONTROL UNIT / DRIVE UNIT
AT	AUXILIARY TRANSFORMER
ATWS	ANTICIPATED TRANSIENT WITHOUT SCRAM
ATWT	ANTICIPATED TRANSIENT WITHOUT TRIP
AVB	ANTI-VIBRATION BAR
AVC	AVERAGE CHANNEL
AVT	ALL-VOLATILE TREATMENT
BAT	BEST AVAILABLE TECHNIQUES
BC	BORON CONCENTRATION
BCMS	BORON CONCENTRATION MEASURING SYSTEM
BDOP	BASIC DESIGN OPTIMISATION PHASE
BDR 99	BASIC DESIGN REPORT (1999 Edition)

ACRONYM	DESCRIPTION
BE	BEST ESTIMATE
BHL	BOTTOM OF HOT LEG
BLX	BEGINNING OF LIFE WITH XENON
BMI	BUNDESMINISTERIUM DES INNEREN
BNI	BALANCE OF NUCLEAR ISLAND
BMU	BUNDESMINISTERIUM FÜR UMWELT UND REAKTORSICHERHEIT
BOC	BEGINNING OF CYCLE
BOD_5	FIVE-DAY BIOCHEMICAL OXYGEN DEMAND
BOL	BEGINNING OF LIFE
BOP	BALANCE OF PLANT
BOREC	BEGINNING OF CORE RECOVERY
BP	BREAK PRECLUSION
BPEO	BEST PRACTICABLE ENVIRONMENTAL OPTION
BRIMS	BRITISH RADWASTE INFORMATION MANAGEMENT SYSTEM
BSL	BASIC SAFETY LEVEL
BSO	BASIC SAFETY OBJECTIVE
BSS	BASIC SAFETY STANDARD
BSTC	BOOK OF SPECIFIC TECHNICAL CLAUSES
BTP	BRANCH TECHNICAL POSITION
BTS	BOOK OF TECHNICAL SPECIFICATIONS
BU	BURN UP
CAD	COMPUTER AIDED DESIGN
CAE	CLAIMS, ARGUMENTS AND EVIDENCE
CAS	CONTROLLED AIRSPACE
CBV	COMPLETE BREACH OF VESSEL
CCAP	CENTRAL COMMITTEE FOR PRESSURE VESSELS
CCC	COMPONENT CONDITION CATEGORY
CCF	COMMON CAUSE FAILURE
CCFL	COUNTER CURRENT FLOW LIMITATION
CCFP	CONDITIONAL CONTAINMENT FAILURE PROBABILITY
CCTF	CYLINDRICAL CORE TEST FACILITY
CCU	CENTRALISED CONTROL UNIT
CD	CHEMICAL DRAINS
CDES	CORE DAMAGE END STATES
CDF	CORE DAMAGE FREQUENCY
CEA	COMMISSARIAT À L'ENERGIE ATOMIQUE
CESC	CENTRAL EMERGENCY SUPPORT CENTRE
CET	CONTAINMENT EVENT TREES
CFD	COMPUTATIONAL FLUID DYNAMICS
CFR	CODE OF FEDERAL REGULATIONS
CHF	CRITICAL HEAT FLUX

ACRONYM	DESCRIPTION
CI	CONVENTIONAL ISLAND
CILC	CORROSION INDUCED LOCALISED CORROSION
CIPS	CRUD INDUCED POWER SHIFT
CL(I)	COLD LEG (INJECTION)
CM	COMPACT FAILURE MODEL
CMF	CORE MELT FREQUENCY
CMS	MAXIMUM DESIGN FLOOD LEVEL (CRUE MAJORÉE DE SÉCURITÉ)
CMSS	CORE MELT STABILISATION SYSTEM
CNA	NATIONAL ALARM CODE (CODE NATIONALE D'ALERTE)
COD	CHEMICAL OXYGEN DEMAND
COL	CONSTRUCTION PERMIT AND OPERATING LICENSE
COMAH	CONTROL OF MAJOR ACCIDENT HAZARDS
COT	CORE OUTLET THERMOCOUPLES
CPU	CENTRAL PROCESS UNIT
CRDS	CONTROL ROD DRIVE SYSTEM
CRF	CIRCULATION WATER
CRGA	CONTROL ROD GUIDE ASSEMBLY
CRTN	CALCULATION OF ROAD TRAFFIC NOISE
CRUD	CHALK RIVER UNIDENTIFIED DEPOSITS
CS	CORE SUPPORT
CSFRF	CONCEPTUAL SAFETY FEATURES REVIEW FILE
CU	CONTROL UNIT
CZP	COLD ZERO POWER
DAW	DRY ACTIVE WASTE
DBA	DESIGN BASIS ASSESSMENT
DBE	DESIGN BASIS EARTHQUAKE
DBT	DESIGN BASIS THREAT
DC	DIRECT CURRENT
DCC	DESIGN CHANGE COMMITTEE
DCH	DIRECT CONTAINMENT HEATING
DCS	DIGITAL CONTROL SYSTEM
DDR	DESIGN DESCRIPTION REPORT
DDT	DEFLAGRATION TO DETONATION TRANSITION
DE	DESIGN EARTHQUAKE
DEC	DESIGN EXTENSION CONDITION
DECT	DIGITAL ENHANCED CORDLESS TELECOMMUNICATIONS
DEFRA	DEPARTMENT FOR ENVIRONMENT FOOD AND RURAL AFFAIRS
DEGB	DOUBLE ENDED GUILLOTINE BREAK
DET	DECOMPOSITION EVENT TREES
DF	DECONTAMINATION FACTOR
DFD	DEUTSCH FRANZÖSISCHER DIREKTIONSAUSS

ACRONYM	DESCRIPTION
DG	DIESEL GENERATOR
DGSNR	DIRECTION GENERALE DE LA SURETE NUCLEAIRE ET DE LA RADIOPROTECTION
DHD	DEEP HOLE DRILLING
DI	DATA INTERFACES
DMW	DISSIMILAR METAL WELD
DN	NOMINAL DIAMETER (DIAMETRE NOMINAL, mm)
DNB(R)	DEPARTURE FROM NUCLEATE BOILING (RATIO)
DP	DESIGN PRESSURE
DQP	DESIGN QUALITY PLAN
DRS	DESIGN RESPONSE SPECTRA
DSEAR	DANGEROUS SUBSTANCES AND EXPLOSIVE ATMOSPHERES REGULATIONS
DSM	DEFECT SIZE MARGIN
DSRC	DESIGN AND SAFETY REVIEW COMMITTEE
DTM	DIFFICULT TO BE MEASURED
DU	DRIVE UNIT
DWMP	DECOMMISSIONING AND WASTE MANAGEMENT PLANS
EBA	ENRICHED BORIC ACID
EC	EMERGENCY CONTROLLER
ECC	EMERGENCY CORE COOLING
ECCS	EMERGENCY CORE COOLING SYSTEM
ECS	EDF CODING SYSTEM
EDG	EMERGENCY DIESEL GENERATOR (also referred to as the MAIN DIESEL GENERATOR)
EDPI	INITIAL PREDICTED DOSE ESTIMATE
EDPO	OPTIMISED PREDICTED DOSE ESTIMATE
EDTA	ETHYLENE DIAMINE TETRA-ACETIC ACID
EE	ELECTRICAL EQUIPMENT
EFPD	EQUIVALENT FULL POWER DAY
EFW	EMERGENCY FEED WATER
EFWP	EMERGENCY FEED WATER PUMP
EHV(GRID)	EXTERNAL HIGH VOLTAGE (GRID)
EIA	ENVIRONMENTAL IMPACT ASSESSMENT
EIADR	ENVIRONMENTAL IMPACT ASSESSMENT FOR DECOMMISSIONING REGULATIONS
EISF	EXCESSIVE INCREASE IN STEAM FLOW
ELLDS	END OF LIFE LIMITING DEFECT SIZE
EMC	ELECTRO MAGNETIC COMPATIBILITY
EMF	ELECTRO MAGNETIC FIELD
EMI	ELECTRO MAGNETIC INTERFERENCE
ENIQ	EUROPEAN NETWORK OF INSPECTION AND QUALIFICATION
EOC	END OF CYCLE
EOG	EMERGENCY OPERATING GUIDELINES

ACRONYM	DESCRIPTION
EOL	END OF LIFE
EOP	EMERGENCY OPERATING PROCEDURE
EPE	EMERGENCY PREPAREDNESS ENGINEER
EPRI	ELECTRIC POWER RESEARCH INSTITUTE (USA)
EPS	EQUIPMENT AND PROTECTIVE SYSTEMS
EPW	EXPLOSION PRESSURE WAVE
ERL	EMERGENCY REFERENCE LEVEL
ESC	EPR STEERING COMMITTEE
ESF	ENGINEERING SAFETY FEATURES
ESFAS	ENGINEERED SAFETY FEATURES ACTUATION SYSTEM
ESP	EARLY SITE PERMIT
ESW	ESSENTIAL SERVICE WATER
ETA	EUROPEAN TECHNICAL APPROVAL
ETC	EPR TECHNICAL CODE
ETC-C	EPR TECHNICAL CODE FOR CIVIL WORK
ETC-F	EPR TECHNICAL CODE FOR FIRE PROTECTION
EUR	EUROPEAN UTILITY REQUIREMENTS
FA	FUEL ASSEMBLY
FA3	FLAMANVILLE 3
FAC	FLOW ACCELERATED CORROSION
FAT	FACTORY ACCEPTANCE TEST
FCHF	FLAT PLATE CRITICAL HEAT FLUX
FCI	FUEL COOLANT INTERACTIONS
FD	FLOOR DRAINS
FE	FINITE ELEMENT
FFFA	FLOATING FILM FORMING AGENT
FHS	FIRE HOSE STATIONS
FMEA	FAILURE MODES AND EFFECTS ANALYSIS
FSC	FAST SECONDARY COOL-DOWN
FSER	FINAL SAFETY EVALUATION REPORT
FP	FISSION PRODUCT
FP	FULL POWER
FPCS	FUEL POOL COOLING SYSTEM
FPPS	FUEL POOL PURIFICATION SYSTEM
FV	FUSSELL-VESELY
FZK	FORSCHUNGSZENTRUM KARLSRUHE
FWIV	FEEDWATER ISOLATION VALVE
FW(L)	FEEDWATER (LINE)
FWLB	FEEDWATER LINE BREAK
FWP	FEED WATER PUMP
F&B	FEED AND BLEED
GDA	GENERIC DESIGN ASSESSMENT
GDF	GEOLOGICAL DISPOSAL FACILITY

ACRONYM	DESCRIPTION
GPR	GROUPE PERMANENT CHARGÉ DES RÉACTEURS
GRS	GERMAN REACTOR SAFETY ASSOCIATION (GESELLSCHAFT FÜR ANLAGEN - UND REAKTORSICHERHEIT GmbH)
GSA	GENERALISED STATE APPROACH
GTA	GOVERNMENT TECHNICAL ADVISER
GU	GERMAN UTILITIES
GW	GATEWAY
HAZOP	HAZARD AND OPERABILITY
HBSC	HUMAN BASED SAFETY CLAIM
HCLPF	HIGH CONFIDENCE OF LOW PROBABILITY OF FAILURE
HC	HOT CHANNEL
HCR	HUMAN COGNITIVE RELIABILITY
H.E.	HIGH ENERGY
HELB	HIGH ENERGY LINE BREAK
HEP	HUMAN ERROR PROBABILITY
HEPA filters	HIGH EFFICIENCY PARTICULATE AIR FILTERS
HEPB	HIGH ENERGY PIPE BREAK
HEPF	HIGH EFFICIENCY PARTICULATE FILTER
HF	HUMAN FACTORS
HFE	HUMAN FACTORS ENGINEERING
HFE	HUMAN FAILURE EVALUATION
HFIR	HUMAN FACTORS ISSUES REGISTER
HFP	HOT FULL POWER
HFT	HOT FUNCTIONAL TEST
HIC	HIGH INTEGRITY COMPONENT
HL(I)	HOT LEG (INJECTION)
HL	HIGH LOAD
HLPD	HIGH LINEAR POWER DENSITY
HM	HEAVY METAL
HMD	HYDROGEN MIXING DAMPER
HMI	HUMAN-MACHINE INTERFACE
HP	HIGH PRESSURE
HPA	HEALTH PROTECTION AGENCY
HPC	HIGH PERFORMANCE CONCRETE
HPCM	HIGH PRESSURE CORE MELT
HPME	HIGH PRESSURE MELT EJECTION
HRA	HUMAN RELIABILITY ASSESSMENT
HRM	HUMAN RELIABILITY MODEL
HSE	HEALTH AND SAFETY EXECUTIVE
HSW	HEALTH AND SAFETY AT WORK
HTA	HIERARCHICAL TASK ANALYSIS
HTC	HEAT TRANSFER COEFFICIENT

ACRONYM	DESCRIPTION
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
HX	HEAT EXCHANGER
HZP	HOT ZERO POWER
IASCC	IRRADIATION ASSISTED STRESS CORROSION CRACKING
IAEA	INTERNATIONAL ATOMIC ENERGY AGENCY
IB(LOCA)	INTERMEDIATE BREAK (LOSS OF COOLANT ACCIDENT)
I&C	INSTRUMENTATION AND CONTROL
I/O	INPUT/OUTPUT
ICBM	INDEPENDENT CONFIDENCE BUILDING MEASURE
ICC	SHORT CIRCUIT CURRENT
ICCMS	INADEQUATE CORE COOLING MONITORING SYSTEM
ICP/MS	INDUCTIVELY COUPLED PLASMA / MASS SPECTROMETRY
ICRP	INTERNATIONAL COMMISSION ON RADIOLOGICAL PROTECTION
IDCOR	INDUSTRY DEGRADED CORE RULEMAKING
IE	INITIATING EVENT
IEC	INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS
IER	ION EXCHANGE RESIN
IET	INTEGRAL EFFECT TEST
IGA	INTER-GRANULAR ATTACK
IGSCC	INTER-GRANULAR STRESS CORROSION CRACKING
IHE	ISENTROPIC HOMOGENOUS EQUILIBIRUM
ILW	INTERMEDIATE-LEVEL WASTE
INSA	INDEPENDENT NUCLEAR SAFETY ASSESSOR
INSAG	INTERNATIONAL NUCLEAR SAFETY ADVISORY GROUP
IPPC	INTEGRATED POLLUTION PREVENTION AND CONTROL
IRA	INITIAL RADIOLOGICAL ASSESSMENT
IRC	INTERMEDIATE RANGE CHANNEL
IRD	INTERMEDIATE RANGE DETECTOR
IRR	IONISING RADIATIONS REGULATIONS
IRSN	INSTITUT DE RADIOPROTECTION ET DE SÛRETÉ NUCLÉAIRE
IRWST	IN-CONTAINMENT REFUELLING WATER STORAGE TANK
IS	INTERNAL STRUCTURE
ISF	INTERIM STORAGE FACILITY
ISI	IN-SERVICE INSPECTION
ISIO	IN-SERVICE INSPECTION OUTAGE
ISLOCA	INTERFACING SYSTEM LOCA
ISO	INTERNATIONAL STANDARDS ORGANISATION
ISTec	INSTITUTE FOR SAFETY TECHNOLOGY
ITAAC	INSPECTIONS, TESTS, ANALYSES, AND ACCEPTANCE CRITERIA

ACRONYM	DESCRIPTION
IVR	IN-VESSEL MELT RETENTION
IWS	INTEGRATED WASTE STRATEGY
IWS	INTEGRATED WASTE STRATEGY
KTA	KERNTECHNISCHER AUSSCHUSS (GERMAN NUCLEAR SAFETY STANDARDS COMMISSION)
KWU	KRAFTWERK UNION
LAN	LOCAL AREA NETWORK
LBB	LEAK BEFORE BREAK
LB(LOCA)	LARGE BREAK (LOSS OF COOLANT ACCIDENT)
LCHF	LOW CONSEQUENCES HIGH FREQUENCY
LCO	LIMITING CONDITION OF OPERATION
LEL	LOWER EXPLOSIVE LIMIT
LERF	LARGE EARLY RELEASE FREQUENCY
LFCG	LIFE FATIGUE CRACK GROWTH
LHSI	LOW HEAD SAFETY INJECTION
LHSI/RHR	LHSI TRAIN IN RESIDUAL HEAT REMOVAL MODE
LL	LOW LOAD
LLL	LOW LOOP LEVEL
LLSF	LOWER LEVEL SAFETY FUNCTION
LLT	LONGITUDINAL-LONGITUDINAL-TRANSVERSE WAVE REFLECTION
LLW	LOW-LEVEL WASTE
LLWR	LOW LEVEL WASTE REPOSITORY
LMP	LEVEL MEASUREMENT PROBES
LNR	LOCAL NATURE RESERVES
LoC	LETTER OF COMPLIANCE
LOCA	LOSS OF COOLANT ACCIDENT
LOCC	LOSS OF COOLING CHAIN
LOFW	LOSS OF SG FEEDWATER
LOMFW	TOTAL LOSS OF MAIN FEEDWATER PUMPS
LOOP	LOSS OF OFFSITE POWER
LORHR	LOSS OF RESIDUAL HEAT REMOVAL (IN SHUTDOWN STATES)
LPD	LINEAR POWER DENSITY
LRF	LARGE RELEASE FREQUENCY
LUHS	LOSS OF ULTIMATE HEAT SINK
LW	LONGITUDINAL WAVE
LWR	LIGHT WATER REACTOR
MC	MID-CORE
MCCI	MOLTEN CORE CONCRETE INTERACTION
MCERTS	(EA) MONITORING CERTIFICATION SCHEME
MCL	MAIN COOLANT LINE
MCR	MAIN CONTROL ROOM
MCS	MINIMAL CUTSETS

ACRONYM	DESCRIPTION
MDEP	MULTINATIONAL DESIGN EVALUATION PROGRAM
MER	MASS AND ENERGY RELEASES
MFIV	MAIN FEEDWATER ISOLATION VALVE
MFW(L)	MAIN FEEDWATER (LINE)
MFW(P)	MAIN FEEDWATER (PUMP)
MFW(S)	MAIN FEEDWATER (SYSTEM)
MHL	MIDDLE OF HOT LEG
MHSI	MEDIUM HEAD SAFETY INJECTION
MM	MARINE MAP
MMI	MAN-MACHINE INTERFACE
MOV	MOTOR OPERATED VALVE
MOX	MIXED OXIDE FUEL (PARTLY Pu MIXED)
MOW	MINIMAL OPERATOR WORKSTATION
MPS	MAIN PRIMARY SYSTEM
MR	MAXIMUM RANGE
MR	MEASURING RANGE
MS	MAIN STEAM
MSB	MAIN STEAM BYPASS
MSH	MAIN STEAM HEADER
MSI	MONITORING AND SERVICES INTERFACE
MSIV	MAIN STEAM ISOLATION VALVE
MS(L)	MAIN STEAM (LINE)
MSLB	MAIN STEAM LINE BREAK
MSRCV	MAIN STEAM RELIEF CONTROL VALVE
MSRIV	MAIN STEAM RELIEF ISOLATION VALVE (PART OF VDA SYSTEM i.e. ATMOSPHERIC STEAM DUMP SYSTEM)
MSRT	MAIN STEAM RELIEF TRAIN
MSRV	MAIN STEAM RELIEF VALVE
MSS	MAIN SECONDARY SYSTEM
MSSV	MAIN STEAM SAFETY VALVE
MSTM	MULTI STUD TENSIONING MACHINE
MSWL	MAXIMUM SAFETY WATER LEVEL
MTB	MEDIA TECHNICAL BRIEFER
MTTR	MEAN TIME TO REPAIR
MV/LV	MEDIUM VOLTAGE/LOW VOLTAGE
NC	NON-CLASSIFIED
NCD	NATURAL CYCLE DURATION
NCR	NON-CONFORMANCE REPORT
NCSS	NON-COMPUTERISED SAFETY SYSTEM
ND	NUCLEAR DIRECTORATE
NDE	NON DESTRUCTIVE EXAMINATION
NDT	NON DESTRUCTIVE TESTING
NE	NATURAL ENGLAND

ACRONYM	DESCRIPTION
NEM	NODAL EXPANSION METHODS
NF	NOMINAL FLOW RATE
NGOT	NARROW GAP ORBITAL TIG (WELDING FILLER MATERIAL)
NI	NUCLEAR ISLAND
NIA	NUCLEAR INSTALLATIONS ACT
NISR	NUCLEAR INDUSTRIES SECURITY REGULATIONS
NNR	NATIONAL NATURE RESERVES
NP	NOMINAL POWER
NPP	NUCLEAR POWER PLANT
NPSH	NET PRESSURE SUCTION HEAD
NPSS	NORMAL POWER SUPPLY SYSTEM
NR	NARROW RANGE
NRC	NUCLEAR REGULATORY COMMISSION (USA)
NRO	NORMAL REFUELLING OUTAGE
NS	NOMINAL SPEED
NSD	NUCLEAR SAFETY DIRECTORATE
NSSS	NUCLEAR STEAM SUPPLY SYSTEM
NUPER	NUCLEAR PLANT EVENT REPORT
NUREG	US NUCLEAR REGULATORY COMMISSION REGULATION
NUSO	NON-UNEQUIVOCALLY SAFETY ORIENTED
OA	OPERATOR ACTION
OAF	OPERATOR AID FUNCTIONS
OECD	ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT
OEF	OPERATING EXPERIENCE FEEDBACK
OER	OPERATING EXPERIENCE REVIEW
OCNS	OFFICE FOR CIVIL NUCLEAR SECURITY
OL3	OLKILUOTO 3
OMR	OPTIMISATION OF MAINTENANCE THROUGH RELIABILITY
ONR	OFFICE FOR NUCLEAR REGULATION
OPEX	OPERATIONAL EXPERIENCE
OPP	OVERPRESSURE PROTECTION
ORNL	OAK RIDGE NATIONAL LABORATORY
OS	OPERATOR STRATEGY
OSC	OPERATIONAL SERVICE CENTRE
OSM	OPTICAL SWITCH MODULE
OSSA	OPERATING STRATEGIES FOR SEVERE ACCIDENTS
OT	OPERATING TERMINAL
OTS	OPERATING TECHNICAL SPECIFICATION
P/S	PRIMARY AND SECONDARY
PACS	PRIORITY AND ACTUATOR CONTROL SYSTEM
PAMS	POST-ACCIDENT MONITORING SYSTEM
PAR	PASSIVE AUTO-CATALYTIC RECOMBINER

ACRONYM	DESCRIPTION
PAS	PROCESS AUTOMATION SYSTEM
PBL	PRIMARY BREAK, LARGE
PBM	PRIMARY BREAK, MEDIUM
PC or PCD	PARTIAL COOLDOWN
PCC	PLANT CONDITION CATEGORY
PCER	PRE-CONSTRUCTION ENVIRONMENTAL REPORT
PCI	PELLET CLAD INTERACTION
PCMI	PELLET-CLADDING MECHANICAL INTERACTION
PCSR	PRE-CONSTRUCTION SAFETY REPORT
PCT	PEAK CLAD TEMPERATURE.
PD	PROCESS DRAINS
PDF	PROBABILITY DENSITY FUNCTION
PDS	PRIMARY DEPRESSURISATION SYSTEM
PDS	PRESSURISER DEPRESSURISATION SYSTEM
PDS	PLANT DAMAGE STATES
PE	PHENOMENOLOGICAL EVALUATIONS
PED	EUROPEAN PRESSURE EQUIPMENT DIRECTIVE
PER	PRESSURE EQUIPMENT REGULATIONS
PFG	POSSIBILITY OF A FLASH OVER FIRE
PFL	POSSIBILITY OF A LOCALISED FIRE
PGA	PEAK GROUND ACCELERATION
PI	PANEL INTERFACE
PICS	PROCESS INFORMATION AND CONTROL SYSTEM
PIE	POSTULATED INITIATING EVENT
PIPO	WORKSTATION CONSOLE (PUPITRE INTERPOSTE OPERATEUR)
PIPS	PROCESS INSTRUMENTATION PRE-PROCESSING SYSTEM
PLSF	PLANT LEVEL SAFETY FUNCTION
PM	PREVENTIVE MAINTENANCE
PMBP	PREVENTIVE MAINTENANCE BASIC PROGRAM
POP	PLANT OVERVIEW PANEL
POR	PASSIVE OUTFLOW REDUCER
PQP	PROJECT QUALITY PLAN
PPC	POLLUTION PREVENTION AND CONTROL
PR	PUBLIC RELATIONS
PRA	PROBABILISTIC RISK ANALYSIS
PRC	POWER RANGE CHANNEL
PRD	POWER RANGE DETECTOR
PRT	PRESSURISER RELIEF TANK
PS	PROTECTION SYSTEM
PSA	PROBABILISTIC SAFETY ASSESSMENT
PSAR	PRELIMINARY SAFETY ANALYSIS REPORT

ACRONYM	DESCRIPTION
PSF	PASSIVE SINGLE FAILURE
PSI	PRE-SERVICE INSPECTION
PSIS	INTER-PANEL SIGNALISATION PANEL (PANNEAU DE SIGNALISATION INTER-SYNOPTIQUES)
PSOT	PROTECTION SYSTEM OPERATOR TERMINAL
PSRV	PRESSURISER SAFETY RELIEF VALVE
PSV	PRESSURISER SAFETY VALVE
PT	PARTIAL TRIP
PTs	PERIODIC TESTS
PTS	PRESSURISED THERMAL SHOCK
PUWER	PROVISION AND USE OF WORK EQUIPMENT REGULATIONS
PVM	PARALLEL VIRTUAL MACHINE
PWR	PRESSURISED WATER REACTOR
PWSCC	PRIMARY WATER STRESS CORROSION CRACKING
PZR	PRESSURISER
QA	QUALITY ASSURANCE
QC	QUALITY CONTROL
QDS	QUALIFIED DISPLAY SYSTEM
Q&E	QUALITY AND ENVIRONMENTAL
QEDS	QUALIFIED EXAMINATION DEFECT SIZE
QEM	QUALITY AND ENVIRONMENTAL MANAGEMENT
QM	QUALITY MANAGEMENT
RAID	REDUNDANT ARRAY OF INDEPENDENT DISK
RAIs	REQUESTS FOR ADDITIONAL INFORMATION
RAM	RELIABILITY, AVAILABILITY AND MAINTAINABILITY
RAMS	RELIABILITY, AVAILABILITY, MAINTAINABILITY AND SAFETY
RAU	REMOTE ACQUISITION UNIT
RBMP	RIVER BASIN MANAGEMENT PLAN
RC	RELEASE CATEGORY
RCA	RADIATION CONTROLLED AREA
RCCA	ROD CLUSTER CONTROL ASSEMBLY
RCC-M	RÈGLES DE CONCEPTION ET DE CONSTRUCTION APPLICABLES AUX MATÉRIELS MÉCANIQUES DES ILÔTS NUCLEAIRES
RCC-E	RÈGLES DE CONCEPTION ET DE CONSTRUCTION APPLICABLES AUX MATÉRIELS ÉLECTRIQUES DES ILÔTS NUCLÉAIRES
RCL	REACTOR COOLANT LINE
RCM	RELIABILITY CENTERED MAINTENANCE
RCSL	REACTOR CONTROL SURVEILLANCE AND LIMITATION SYSTEM
RCP	REACTOR COOLANT PUMP
RCPB	REACTOR COOLANT PRESSURE BOUNDARY

ACRONYM	DESCRIPTION
RDTME	ROD DROP TIME MEASUREMENT EQUIPMENT
REA	ROD EJECTION ACCIDENT
REF	REFUELLING
REPPIR	RADIATION EMERGENCY PREPAREDNESS AND PUBLIC INFORMATION REGULATIONS
RFS	REGLE FONDAMENTALE DE SURETE (BASIC SAFETY RULE)
RHR	RESIDUAL HEAT REMOVAL
RIA	REACTIVITY INSERTION ACCIDENT
RIF	RISK INCREASE FACTOR
R&D	RESEARCH AND DEVELOPMENT
RLs	REFERENCE LEVELS
ROI	ROD POSITION INSTRUMENTATION
ROO	REFUELLING ONLY OUTAGE
RP	RATED POWER
RPA	RADIATION PROTECTION ADVISOR
RPI	ROD POSITION INSTRUMENTATION
RPT	REACTOR PRESSURE TANK
RPV	REACTOR PRESSURE VESSEL
RPVCH	REACTOR PRESSURE VESSEL CLOSURE HEAD
RPVL	REACTOR PRESSURE VESSEL LEVEL
RRC	RISK REDUCTION CATEGORY
RRV	RISK REDUCTION VALUE
RSA	RADIOACTIVE SUBSTANCES ACT
RSK	REAKTOR-SICHERHEITSKOMMISSION
RSS	REMOTE SHUTDOWN STATION
RT	RADIOGRAPHIC TESTING
RT	REACTOR TRIP
RTs	RE-QUALIFICATION TESTS
RTNDT	REFERENCE NIL-DUCTILITY TRANSITION TEMPERATURE
RWMC	RADIOACTIVE WASTE MANAGEMENT CASES
RWMD	RADIOACTIVE WASTE MANAGEMENT DIRECTORATE
S3E	SCALED SIMULANT SPREADING EXPERIMENTS
SA	SEVERE ACCIDENT
SAC	SPECIAL AREA OF CONSERVATION
SADV	SEVERE ACCIDENT DEPRESSURISATION VALVE
SAMDA	SEVERE ACCIDENT MITIGATION DESIGN ALTERNATIVES
SAP	SAFETY ASSESSMENT PRINCIPLE
SAS	SAFETY AUTOMATION SYSTEM
SAT	SYSTEMATIC APPROACH TO TRAINING
S ATWS	SEISMICALLY INDUCED ANTICIPATED TRANSIENT WITHOUT SCRAM
SAU	SEVERE ACCIDENT UNITS
SB(LOCA)	SMALL BREAK (LOSS OF COOLANT ACCIDENT)

ACRONYM	DESCRIPTION
SBO	STATION BLACKOUT
SBO-DG	STATION BLACK OUT DIESEL GENERATOR (also referred to as ULTIMATE DIESEL GENERATOR, UDG)
SC	SEISMIC CLASS
SCC	STRESS CORROSION CRACKING
SCC	STRATEGIC CO-ORDINATING CENTRE
SCI	SITE OF COMMUNITY INTEREST
SCTF	SLAB CORE TEST FACILITY
SDA	DEMINERALISED WATER PRODUCTION SYSTEM
SDM	SYSTEM DESIGN MANUAL
SDO	SAFETY DESIGN OBJECTIVE
SE	SAFETY ENGINEER
SEL	SEISMIC EQUIPMENT LIST
SEPA	SCOTTISH ENVIRONMENTAL PROTECTION AGENCY
SER	SAFETY EVALUATION REPORT
SERG	STEAM EXPLOSION REVIEW GROUP
SET	SEPARATE EFFECT TEST
SF(C)	SINGLE FAILURE (CRITERION)
SFG	SAFETY FUNCTIONAL GROUP
SFPC	SPENT FUEL POOL COOLING
SFSI	SOIL FLUID STRUCTURE INTERACTION
SG	STEAM GENERATOR
SGTR	STEAM GENERATOR TUBE RUPTURE
SI	SAFETY INJECTION
SICS	SAFETY INFORMATION AND CONTROL SYSTEM
SIS-RHR	SAFETY INJECTION SYSTEM OPERATING IN RESIDUAL HEAT REMOVAL MODE
SLB	STEAM LINE BREAK
SLBI	STEAM LINE BREAKS INSIDE CONTAINMENT
SLC	SITE LICENCE CONDITIONS
SLS	SERVICEABILITY LIMIT STATE
SM	SHIFT MANAGER
SMA	SEISMIC MARGIN ASSESSMENT
SMAW	MANUAL METAL ARC WELDING
SME	SEISMIC MARGIN EARTHQUAKE
SME	SUBJECT MATTER EXPERT
SOA	STATE ORIENTED APPROACH
SOV	SOLENOID OPERATED VALVE
SPA	SPECIAL PROTECTION AREA
SPAR-H	STANDARDISED PLANT ANALYSIS RISK - HUMAN RELIABILITY ANALYSIS
SPDF	SAFETY PARAMETER DISPLAY FUNCTION
SPE	SAFETY ENGINEER PROCEDURE
SPN	STANDING NUCLEAR SECTION

ACRONYM	DESCRIPTION
SPND	SELF POWERED NEUTRON DETECTORS.
SQEP	SUITABLY QUALIFIED AND EXPERIENCED PERSONNEL
SQSS	SECURITY AND QUALITY OF SUPPLY STANDARD
SRC	SOURCE RANGE CHANNEL
SRSS	SQUARE ROOT OF THE SUM OF THE SQUARES
SRWSR	SOLID RADIOACTIVE WASTE STRATEGY REPORT
SSB	SECONDARY SIDE BREAK
SSC	STRUCTURES, SYSTEMS, AND COMPONENTS
SSE	SAFE SHUTDOWN EARTHQUAKE
SSER	SAFETY, SECURITY AND ENVIRONMENTAL REPORT
SSPB	SECONDARY SYSTEM PRESSURE BOUNDARY
SSI	SOIL STRUCTURE INTERACTION
SSSI	STRUCTURE SOIL STRUCTURE INTERACTION
SSSI	SITES OF SPECIAL SCIENTIFIC INTEREST
ST	STEP-DOWN TRANSFORMER
STP	STANDARD TEMPERATURE AND PRESSURE
SU	SERVICE UNIT
SV	SAFETY VALVE
TAG	TECHNICAL ASSESSMENT GUIDE
TC	TOP-CORE
TCP	TOWN AND COUNTRY PLANNING
TDS	TOTAL DISSOLVED SOLIDS
TFP	TERMINAL FIXED POINT
TG	TECHNICAL GUIDELINES
TG	TURBO-GENERATOR
THERP	TECHNIQUE FOR HUMAN ERROR RATE PREDICTION
THL	TOP OF HOT LEG
TI	TURBINE ISLAND
TLIC	TOTAL LOSS OF DIGITAL I&C
TLOCC	TOTAL LOSS OF COMPONENT COOLING
TLOFW	TOTAL LOSS OF STEAM GENERATOR FEEDWATER
TMI	THREE MILES ISLAND
TRO	TOTAL RESIDUAL OXIDANT
TSC	TECHNICAL SUPPORT CENTRE
TSP	TUBE SUPPORT PLATE
TSS	TOTAL SUSPENDED SOLIDS
TT	TURBINE TRIP
TTS	TOP OF TUBESHEET
TÜV	TECHNICAL INSPECTION AGENCY (TECHNISCHER ÜBERWACHUNGS-VEREIN)
U(BC)	UNCERTAINTY IN THE BORON CONCENTRATION LEVEL
UCAS	UNCONTROLLED AIRSPACE
UCP	UPPER CORE PLATE

ACRONYM	DESCRIPTION
UDG	ULTIMATE DIESEL GENERATOR (ALSO REFERRED TO AS STATION BLACK OUT DIESEL GENERATOR, SBO-DG)
UEB	UNCLASSIFIED ELECTRICAL BUILDINGS
UHS	ULTIMATE HEAT SINK
ULD	UNCONTROLLED LEVEL DROP
ULS	ULTIMATE LIMIT STATE
Un	NOMINAL VOLTAGE
UP	UPPER PLENUM
UPS	UNINTERRUPTIBLE POWER SUPPLY
URBWP	UNCONTROLLED RCCA BANK WITHDRAWAL AT POWER
URS	UNIFORM RISK SPECTRA
USO	UNEQUIVOCALLY SAFETY ORIENTED
USP	UPPER SUPPORT PLATE
U(T)	TEMPERATURE UNCERTAINTY
UT	ULTRASONIC TESTING
UTC	CO-ORDINATED UNIVERSAL TIME
V & V	VERIFICATION AND VALIDATION
VCE	VAPOUR CLOUD EXPLOSION
VCT	VOLUME CONTROL TANK
VIP	VESSEL INSPECTION PROJECT
VLLW	VERY LOW-LEVEL WASTE
WANO	WORLD ASSOCIATION OF NUCLEAR OPERATORS
WCA	WILDLIFE AND COUNTRYSIDE ACT
WENRA	WESTERN EUROPEAN NUCLEAR REGULATORS' ASSOCIATION
WER	WATER ENVIRONMENT REGULATIONS
WG	WORKING GROUP
WR	WIDE RANGE
YVL	REGULATORY GUIDES ON NUCLEAR SAFETY ISSUED BY STUK (FINNISH SAFETY AUTHORITY)

INTRODUCTION – REFERENCES

External references are identified within this sub-chapter by the text [Ref-1], [Ref-2], etc at the appropriate point within the sub-chapter. These references are listed here under the heading of the section or sub-section in which they are quoted.

[Ref-1] New Nuclear Power Stations, Generic Design Assessment - A guide to the regulatory processes. Version 2. UK Health and Safety Executive and Environment Agency. August 2008. (E)

[Ref-2] UK EPR GDA Project - Reference Design Configuration. UKEPR-I-002 (E)

[Ref-3] Nuclear Power Station Generic Design Assessment – Guidance to Requesting Parties. Version 3. UK Health and Safety Executive. August 2008 (E)

[Ref-4] Process and Information Document for Generic Assessment of Candidate Nuclear Power Designs. Version 1. UK Environment Agency. January 2007 (E)

[Ref-5] Guidance Document for Generic Design Assessment Activities – Office for Civil Nuclear Safety. Version 2. January 2007 (E)