Contents

Tables

Figures

Glossry

Architect engineer.– A supplier of design and engineering services for construction projects (e.g., powerplants, office buildings, bridges, etc.).

Auxiliary feedwater. –A standby system used to supply the secondary (nonradioactive) side of PWR'S steam generation with cooling water in the event the main source of water fails.

Balance of plant.– The equipment, in addition to the nuclear steam supply system, which is necessary to produce electricity from a nuclear powerplant.

Boiling water reactor. -A power reactor in which water, used as a coolant and moduator, is allowed to boil in the core.

Control rod. –A rod or tube containing a material that readily absorbs neutrons used to control the power of a nuclear reactor.

Decay heat.– The heat produced by the decay of radioactive nuclides or fission fragments.

Fission.—The splitting of a heavy nucleus into two approximately equal parts, accompanied by the release of a relatively large amount of energy and one or more neutrons.

Heat sink.– Anything that absorbs heat; usually part of the environment such as a river, pond, or the atmosphere.

Light water reactor.– A reactor which uses ordinary water as opposed to heavy water as a moderator and/or coolant.

Megawatt. -A unit of energy production or consumption commonly used to describe the generating capacity of a powerplant.

Moderator.—A material such as water used in a reactor to slow down high-velocity neutrons.

Nuclear steam supply system.–An arrangement of equipment with a critical array of nuclear fuel which creates high-quality steam for running turbine generators.

Pressurized water reactors. -A power reactor in which heat is transferred from the core to a heat exchanger by water kept under high-pressure to achieve high temperature without boiling,

Probabilistic risk assessment. –An approach to safety analysis which assesses undesirable consequences and their likelihood.

Radioactivity. —The spontaneous decay or disintegration of a unstable atomic nucleus accompan ied by the emission of ionizing radiation.

Reactor. -A device in which a fission-chain reactor can be initiated, maintained, and controlled.

Safety goal.– A quantitative or qualitative target for either reliability or unreliability (risk).

System.– An arrangement of equipment utilized in a powerplant for a specific function (e. g., the reactor protective system).

Vendor.– The supplier of the design and much of the equipment for the nuclear steam supply system.

Acronyms and Abbreviations

ACRS	— Advisory Committee on Reactors Safeguards
AE	— architect engineer
AEC	— Atomic Energy Commission
AFW	— auxiliary feedwater system
ASME	– American Society of Mechanical Engineers
ANSI	— American National Standards Institute
ASLB	– Atomic Safety Licensing Board
BOP	– balance of plant
BWR	— boiling water reactor
CP	— construction permit
DBA	– design basis accident
EPA	– Environmental Protection Agency
EPRI	– Electric Power Research Institute
FDA	– final design approval
FSAR	– final safety analysis report
GE	– General Electric Co,
INPO	— Institute of Nuclear Power Operations
LER	– licensee event report
LWR	— I ight water reactor
MWe	— megawatts electric
MWt	— megawatts thermal
NRC	— Nuclear Regulatory Commission
NSAC	— Nuclear Safety Analysis Center
NSSS	— nuclear steam supply system
OL	— operating licenses
OPS	– Offshore Power Systems
OTA	– Office of Technology Assessment
PDA	– preliminary design approval
PDDA	— preliminary duplicate design approval
PRA	— probabilistic risk assessment
PSAR	– preliminary safety analysis report
Pwc	— power-worthiness certificate
PWR	— pressurized water reactor
RSS	— reactors safety study
SAR	— safety analysis report
SDA	— standard design approval
SIP	— standard information package
SNUPPS	– standardized nuclear unit powerplant system
TMI	– Three Mile Island
TVA	– Tennessee Valley Authority

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