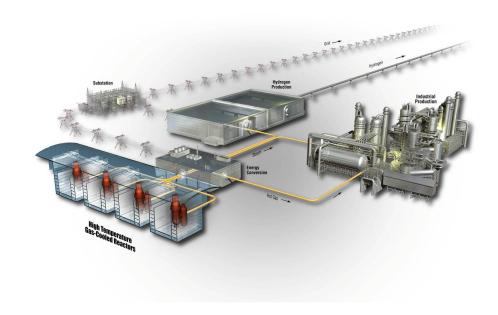
Document ID: LST-649

Revision ID: 0

Effective Date: 04-26-2011

# List

# NGNP Definitions and Acronyms



The INL is a U.S. Department of Energy National Laboratory operated by Battelle Energy Alliance



## NGNP DEFINITIONS AND ACRONYMS

Identifier:

LST-649

Revision:

Effective Date:

0

011

eCR Number:

Page: 2 of 21

NGNP Project

List

04/26/2011

[591770]

# Signatures

Approved by:

Name: Gary Roberts

Title: Author

Name: Rafael Soto

Title: NGNP Deputy Director

Spil 26, 2011

Date

	Identifier:	LST-649	
NGNP DEFINITIONS AND ACRONYMS	Revision:	0	
	Effective Date:	04/26/2011	Page: 3 of 21

## **REVISION LOG**

Rev.	Date	Affected Pages	Revision Description
0	04/26/2011	All	Newly issued document

# NGNP DEFINITIONS AND ACRONYMS Revision: Effective Date: 04/26/2011 Page: 4 of 21

# **CONTENTS**

1.	PURPOSE	5
2.	APPLICABILITY	5
3.	DEFINITIONS	5
4.	ACRONYMS	20
5.	REFERENCES	21
6.	APPENDICES	21

	Identifier:	LST-649	
NGNP DEFINITIONS AND ACRONYMS	Revision:	0	
	Effective Date:	04/26/2011	Page: 5 of 21

#### 1. PURPOSE

This list contains definitions and acronyms of terms used in Next Generation Nuclear Plant (NGNP) Quality Assurance Program (QAP) documents, including the NGNP Quality Assurance Program Description (QAPD; PDD-172) and Program Requirements Documents (PRD-349–PRD-374). Locating these definitions and acronyms in this list avoids duplication in these documents, which collectively describe the NGNP QAP.

#### 2. APPLICABILITY

These definitions apply to the NGNP QAPD, the PRD, and all QAP implementing documents. This list may be referenced in those documents or the definitions and acronyms may be repeated in the documents. If there is conflict between definitions contained in QAP implementing documents and this list, the definitions in this list prevail.

#### 3. **DEFINITIONS**

*acceptance*. The documented determination by the receiving organization that performance, results, or other characteristics of an item, process, or service is suitable for the intended purpose.

acceptance criteria. Specified limits placed on the performance, results, or other characteristics of an item, process, or service defined in codes, standards, or other requirement documents.

acceptance test. Test of items to verify conformance to specified requirements and demonstrate their ability to satisfactorily perform their design requirements.

acceptance testing also known as software validation. The process of exercising or evaluating a system or system component by manual or automated means to ensure that it satisfies the specified requirements and to identify differences between expected and actual results in the operating environment.

activities affecting quality. The actions that affect the quality of an item or service to meet or demonstrate compliance to requirements. Examples of activities affecting quality include siting, designing, procuring, calibrating, handling, shipping, receiving, storing, cleaning, erecting, installing, inspecting, testing, operating, maintaining, refueling, modifying, and decommissioning.

alternate calculations. Calculations that are made with alternate methods to verify correctness of the original calculation.

*approval*. The documented determination by a responsible organization that work is suitable for the intended purpose and shall be used as required.

	Identifier:	LST-649	
NGNP DEFINITIONS AND ACRONYMS	Revision:	0	
	Effective Date:	04/26/2011	Page: 6 of 21

assessment. A review, evaluation, inspection, test, check, or surveillance, to determine and document whether items, processes, systems, or services meet specified requirements and perform effectively.

assessor. An individual who by education, experience, and other credentials has been selected and trained or qualified to perform assigned portions of an assessment under the direction of a lead assessor or to perform surveillances.

audit. A planned and documented activity performed to determine by investigation, examination, or evaluation of objective evidence the adequacy of and compliance with established procedures, instructions, drawings, and other applicable documents, and the effectiveness of implementation. An audit should not be confused with surveillance or inspection activities performed for the sole purpose of process control or product acceptance.

*audit, external.* An audit of those portions of another organization's QAP not under the direct control or within the organizational structure of the auditing organization.

auditor. An individual who is qualified to perform assigned portions of an audit.

*audit, internal.* An audit of those portions of an organization's QAP retained under its direct control and within its organizational structure.

baseline. A specification or product that has been formally reviewed and agreed upon, that thereafter serves as the basis for use and further development, and that can be changed only by using an approved change control process.

*basic component*. A structure, system, or component (SSC), or part thereof that affects its safety function that was designed and manufactured in accordance with the requirements of the NGNP QAP, or commercial grade items which have successfully completed the dedication process.

calibration. The set of operations that establish, under specified conditions, the relationship between values indicated by a measuring instrument or measuring system and the corresponding standard or known values derived from the standard.

*certificate of conformance*. A document signed or otherwise authenticated by an authorized individual certifying the degree to which items or services meet specified requirements.

*certification*. The act of determining, verifying, and attesting in writing to the qualifications of personnel, processes, procedures, or items in accordance with specified requirements.

	Identifier:	LST-649	
NGNP DEFINITIONS AND ACRONYMS	Revision:	0	
	Effective Date:	04/26/2011	Page: 7 of 21

*characteristic*. Any property or attribute of an item, process, or service that is distinct, desirable, and measurable.

commercial grade item. <sup>a,b</sup> A structure, system, component, or part thereof that affects its safety function that was not designed and manufactured as a basic component. Commercial grade items do not include items where the design and manufacturing process require in-process inspections and verifications to ensure that defects or failures to comply are identified and corrected (i.e., one or more critical characteristics of the item cannot be verified).

commercial grade item. a,c An item satisfying the following:

- Not subject to design or specification requirements that are unique to those facilities or activities
- Used in applications other than those facilities or activities
- To be ordered from the manufacturer/supplier on the basis of specifications set forth in the manufacturer's published product description (e.g., a catalog).

*commercial grade item.* <sup>a,d</sup> A structure, system, component, or part thereof, that affects its safety function, that was not designed and manufactured in accordance with the requirements of the NGNP QAP.

commercial grade service. A service that was not provided in accordance with the requirements of the NGNP OAP.

*computer program*. e,f,g A combination of computer instructions and data definitions that enables computer hardware to perform computational or control functions.

a. See NQA-1, Part II, Subpart 2.14, "Quality Assurance Requirements for Commercial Grade Items and Services," for other definitions related to the dedication of commercial grade items.

b. This definition applies to nuclear power plants and activities licensed pursuant to 10 CFR Part 30, 40, 50, 52, or 60.

c. This definition applies to nuclear facilities and activities licensed pursuant to 10 CFR Parts 30, 40, 50 (other than nuclear power plants), 60, 61, 63, 70, 71, or 72.

d. This definition applies to Department of Energy nuclear facilities and activities regulated under 10 CFR 830, Nuclear Safety Management.

e. Computer programs covered by this standard are those used for:

<sup>(</sup>a) design analysis

<sup>(</sup>b) operations or process control

<sup>(</sup>c) data base or document control registers when used as the controlled source of quality information for (a) or (b) above.

f. This definition has been copied from ANSI/IEEE 610.12-1990, *Glossary of Software Engineering Terminology*, with the permission of IEEE.

	Identifier:	LST-649	
NGNP DEFINITIONS AND ACRONYMS	Revision:	0	
	Effective Date:	04/26/2011	Page: 8 of 21

*computer software*. Computer programs and associated documentation and data pertaining to the operation of a computer system.

#### **NOTE:**

Computer-related terms are not universally applied in regulatory or industry usage. For purposes of the NGNP SQA Program, Software is a super-set term that embraces operating system, software tools such as compilers and utilities, programs such as Excel, and applications such as spreadsheet files containing formulae. Classification can be life-cycle phase dependent. For example, when a custom-developed code is being created, Fortran 77 is the program, and the code is the application. However, when the developed code is operational, and is creating, opening, modifying, and saving data files, the operational code is the program, and the files it operates on are applications.

condition adverse to quality. An all-inclusive term used in reference to any of the following: failures, malfunctions, deficiencies, defective items, and nonconformances. A significant condition adverse to quality is one that, if uncorrected, could have a serious effect on safety or operability.

*configuration*. The physical, functional, and operational characteristics of the structures, systems, components, or parts of the existing facility.

*configuration item (software)*. A collection of hardware or software elements treated as a unit for the purpose of configuration control.

*configuration management.* The process that controls the activities, and interfaces, among design, construction, procurement, training, licensing, operations, and maintenance to ensure that the configuration of the facility is established, approved, and maintained.

configuration management (software). The process of identifying and defining the configuration items in a system (i.e., software and hardware), controlling the release and change of these items throughout the system's life cycle, and recording and reporting the status of configuration items and change requests.

corrective Action. Measures taken to rectify a deficiency or safety concern and, where necessary, to preclude repetition.

*controlled document*. A document that is released within a system that imposes controls on the document's development, revision, and distribution.

control point (software). A point in the software life cycle at which specified agreements or control (typically a test or review) are applied to the software configuration items

	Identifier:	LST-649	
NGNP DEFINITIONS AND ACRONYMS	Revision:	0	
	Effective Date:	04/26/2011	Page: 9 of 21

being developed, e.g., an approved baseline or release of a specified document or computer program.

corrective action. Measures taken to rectify conditions adverse to quality and, where necessary, preclude repetition.

*critical characteristics*. Important design, material, and performance characteristics of a commercial grade item or service that, once verified, will provide reasonable assurance that the item or service will perform its intended safety function.

dedicated staff (CGI). Personnel who have been specifically assigned, trained, and qualified as necessary to perform a required activity as a portion, either major or minor, of their responsibilities.

dedicating entity (CGI). The organization that performs the dedication process. Dedication may be performed by the manufacturer of the item, a third-party dedicating entity, or by the facility.

dedication (CGI). An acceptance process performed in accordance with the NGNP QAP to provide reasonable assurance that a commercial grade item or service will perform its intended safety function; in this respect, is deemed equivalent to an item or service designed and manufactured or provided under the requirements of the NGNP QAP. This assurance is achieved by identifying the critical characteristics of the item and verifying their acceptability by inspection, tests, or analyses performed by the purchaser or third-party dedicating entity after delivery, supplemented as necessary by one or more of the following: commercial grade surveys, product inspections of witness at hold-points at the manufacturer's facility, and analysis of historical records for acceptable performance. In all cases, the dedication process must be conducted in accordance with the applicable provisions of the NGNP QAP (e.g., test control, control of measuring and test equipment, and QA records).

deficiency. A condition in characteristic, documentation, or procedure that renders the quality of a process or activity unacceptable or indeterminate against criteria from written requirement identified in an implementing procedure. This does not include minor isolated administrative deficiencies unless a negative trend appears.

design, final. Approved design output documents and approved changes thereto.

*design authority*. The organization having the responsibility and authority for approving the design bases, the configuration, and changes thereto.

design bases. That information which identifies the specific functions to be performed by a SSC of a facility, and the specific values or ranges of values chosen or controlling parameters as reference bounds for design. These values may be:

	Identifier:	LST-649	
NGNP DEFINITIONS AND ACRONYMS	Revision:	0	
	Effective Date:	04/26/2011	Page: 10 of 21

- Restraints derived from generally accepted "state of-the-art" practices for achieving functional goals, or
- Requirements derived from analysis (based on calculations and/or experiments) of the effects of a postulated accident for which a SSC must meet its functional goals.

design change. Any revision or alteration of the technical requirements defined by approved and issued design output documents and approved and issued changes thereto.

design control. Activities that provide appropriate attention to design error and deficiency control, design changes, computer software design and control, technical reviews, peer reviews, control of experimental and development activities, qualification of data, and modification control

*design input*. Those criteria, performance requirements, codes and standards, design bases, regulatory requirements, or other design requirements upon which detailed final design is based.

*design output.* Drawings, specifications, and other documents used to define technical requirements of structures, systems, components, and computer programs.

design process. Technical and management processes that commence with identification of design input that lead to and include the issuance of design output documents.

design review. A critical review to provide assurance that the final design is correct and satisfactory.

deviation. A departure from specified requirements.

*document*. Any written, pictorial, or electronic information describing, defining, specifying, reporting, or certifying activities, requirements, procedures, or results. A document is not considered to be a quality assurance (QA) record until it satisfies the definition of a QA record as defined in PRD-372. "Quality Assurance Program Description."

document control. The act of assuring that documents are reviewed for adequacy, approved for release by authorized personnel, and distributed to and used at the location where the prescribed activity is performed.

*electronic document*. A document stored in a form (i.e., magnetic or optical media) that is typically accessible only by a computer.

engineering analysis/evaluation(S/CI). A technical review conducted by qualified engineering and other technical personnel using accepted methods to determine the actual or potential cause of a substantial safety hazard and the effect of an S/CI.

	Identifier:	LST-649	
NGNP DEFINITIONS AND ACRONYMS	Revision:	0	
	Effective Date:	04/26/2011	Page: 11 of 21

equivalency evaluation (CGI). A technical evaluation performed to confirm that a replacement item (not identical to the original) can satisfactorily perform its intended safety functions, including its safety functions.

equivalency replacement (CGI). A replacement item not physically identical to the original. These replacement items require an equivalency evaluation to ensure that the intended functions, including its safety function, will be maintained.

*error* (*software*). A condition deviating from established baseline, including deviations from the current approved computer program and its baseline requirement.

*Evaluator*. Individuals evaluating the performance of a candidate for assessor and lead assessor qualification that that have adequate experience in performing and leading assessments to provide an unbiased evaluation.

*external organization(s)*. Companies, special interest groups, state agencies, DOE counterparts, or other work groups that are outside the company's organization structure or influence.

factual accuracy. A review of the assessment results to allow the assessed organization to comment on the accuracy and ensure sufficient information is included to develop and implement appropriate corrective action and improvement plans. The review is only to confirm accuracy, not to contest or argue an assessment team's conclusion.

facility level documents. Internal facility operating documents, or supplements to laboratory-wide or functional documents.

functional support area documents. Internal documents used by practitioners or professionals, or supplements to laboratory-wide documents.

government property: All types of assets of every kind and description purchased under the Maintenance and Operations contract or provided by the government.

guidance. A suggested practice that is not mandatory in programs intended to comply with the NGNP QAP. The word *should* denotes guidance; the word *shall* denotes a requirement.

*hold point*. A mandatory verification point in the sequence of work which shall not be passed without being released by the identified person or organization based on confirmation that specified conditions have been met or completed.

*identical item (CGI)*. An item that exhibits the same technical and physical characteristics (physically identical).

*independence*. Performed by qualified personnel other than those who performed or directly supervised the work.

	Identifier:	LST-649	
NGNP DEFINITIONS AND ACRONYMS	Revision:	0	
	Effective Date:	04/26/2011	Page: 12 of 21

*independent (inspection, test and nondestructive examination)*. Performed by qualified personnel other than those who performed or directly supervised the work.

*indoctrination*. A method of training designed to familiarize personnel in fundamental criteria, program elements, responsibilities, and authority applicable to assigned tasks.

*in-process*. The time that an item is being controlled under a normal work process (maintenance, construction, modification, testing, inspection, etc.) and the process has not yet been completed.

*in-service inspection*. Examinations, measurements and tests required on nuclear facilities that are governed by the American Society of Mechanical Engineers Boiler and Pressure Vessel Code Section XI, Rules for In-service Inspection of Nuclear Power Plant Components.

*inspection*. Examination or measurement to verify whether an item or activity conforms to specified requirements.

*inspector*. A person who performs inspection activities to verify conformance to specific requirements.

*issue*. An inclusive term used to define a problem requiring management attention. Issues include failures, malfunctions, deficiencies, defective items, nonconformances, or conditions or actions that have a reasonable potential to cause adverse operational, environmental, safety and health, or QA consequences.

*item*. An all-inclusive term used in place of appurtenance, assembly, component, equipment, material, module, part, structure, subassembly, subsystem, system, or unit.

*lead auditor*. An individual who is certified to organize and direct an audit, report audit results, and evaluate related corrective actions.

*lessons learned.* A good work practice or innovative approach that is captured and shared to promote repeat application or an undesirable work practice or experience that is captured to avoid recurrence.

*lifetime records*. Records that meet one or more of the following criteria:

- Those which would be of significant value in demonstrating capability for safe operation.
- Those which would be of significant value in maintaining, reworking, repairing, replacing, or modifying an item.
- Those which would be of significant value in determining the cause of an accident or malfunction of an item.

•	Identifier:	LST-649	
NGNP DEFINITIONS AND ACRONYMS	Revision:	0	
	Effective Date:	04/26/2011	Page: 13 of 21

• Those which provide baseline data for *in-service inspections* (see def.).

like-for-like replacement (CGI). The replacement of an item with an item that is identical.

*material*. Property that may be incorporated into or attached to an equipment item or that may be consumed or expended in normal use. INL has defined material into three categories as follows:

- *precious metals*. Uncommon and highly valuable metals characterized by their superior resistance to corrosion and oxidation, including gold, silver, and the platinum group metals: platinum, palladium, rhodium, iridium, ruthenium, and osmium.
- *supplies*. Property items that are consumed or expended in use.
- *spares*. Specific replacement units used for repair and maintenance of operational systems.

*measuring and test equipment.* Devices or systems used to calibrate, measure, gage, test, or inspect in order to control or acquire data to verify conformance to specified requirements.

*minor changes*. Inconsequential editorial corrections that do not change the intent of the original document. All other changes, including changes that MUST be made in order for work to continue, are not minor changes. Minor changes are:

- Correction of spelling, grammar, or punctuation (excluding changing equipment or SSC identification numbers), and updating template formats
- Renumbering sections or attachments that do not affect the chronological sequence of work
- Correction of document references (title or identifier)
- Updating position titles or organization names where there are no changes in responsibilities (redefinitions of position and/or organization responsibilities are not minor changes).

*model*. A representation of a process, system, or phenomenon, along with any hypotheses required to describe the process or system or explain the phenomenon, often mathematically.

*nonconformance*. A deficiency in characteristic, documentation, or procedure that renders the quality of an item or activity unacceptable or indeterminate.

	Identifier:	LST-649	
NGNP DEFINITIONS AND ACRONYMS	Revision:	0	
	Effective Date:	04/26/2011	Page: 14 of 21

nondestructive examination. Testing by methods that do not destroy the form and function of the material being inspected. These methods include the use of radiography, magnetic particle, ultrasonic, liquid penetrate, electromagnetic, neutron radiography, acoustic emission, leak testing, and visual testing.

nonpermanent records. Those records required to show evidence that an activity was performed in accordance with the applicable requirements but need not be retained for the life of the item because they do not meet the criteria for lifetime records.

*noteworthy practice*. An exemplary practice that may be applied to other operations or facilities.

objective evidence. Any documented statement of fact, other information, or record, either quantitative or qualitative, pertaining to the quality of an item or activity, based on observations, measurements, or tests that can be verified.

*owner*. The organization legally responsible for the construction and/or operation of a nuclear facility including but not limited to one who has applied for, or who has been granted, a construction permit or operating license by the regulatory authority having lawful jurisdiction.

procedure. A document that specifies or describes how an activity is to be performed.

*procurement document.* Purchase requisitions, purchase orders, drawings, contracts, specifications, or instructions used to define requirements for purchase.

process. A series of actions that achieves an end result.

*purchaser*. The organization responsible for establishment of procurement requirements and for issuance or administration, or both, of procurement documents.

*qualification testing*. A test that is intended to provide a desired level of confidence that an item meets specified criteria.

qualification, personnel. The characteristics or abilities gained through education, training, or experience, as measured against established requirements, such as standards or tests that qualify an individual to perform a required function.

*qualified automated means*. Automated methods of controlling or monitoring processes that have been demonstrated to produce required quality within controlled limits.

*qualified procedure*. An approved procedure that has been demonstrated to meet the specified requirements for its intended purpose.

*quality*. The condition achieved when an item, service, or process meets or exceeds the user's requirements and expectations.

	Identifier:	LST-649	
NGNP DEFINITIONS AND ACRONYMS	Revision:	0	
	Effective Date:	04/26/2011	Page: 15 of 21

*quality assurance*. All those planned and systematic actions necessary to provide adequate confidence that an SSC will perform satisfactorily in service.

quality assurance markings and status identification. Physical indications made by QA personnel directly upon an item or on tags and labels applied to the item that denotes the item's quality status. QA markings and status identification include acceptance (green) tags, hold for inspection (yellow) tags, reject or nonconformance (red) tags, conditional use (white) tags, QA identification code strip markings, and calibration labels and seals.

*quality assurance record*. A completed document that furnishes evidence of the quality of items and/or activities affecting quality. Types of record media may include paper, electronic magnetic or optical), or specially processed media such as radiographs, photographs, negatives, and microforms. The term *record*, as used throughout the NGNP QAP, is to be interpreted as a quality assurance record.

quality standard. A code or standard that provides design inputs, acceptance criteria, or other criteria necessary to assure the quality of the designated item.

receiving. Taking delivery of an item at a designated location.

regression testing (software). Selective retesting to detect errors introduced during modification of the computer program or to verify that the modified computer program still meets its specified requirements.

*reject/rejection*. An inspection result in which the item/attribute did not meet specified acceptance criteria.

*repair*. The process of restoring a nonconforming characteristic to a condition such that the capability of an item to function reliably and safely is unimpaired, even though that item still does not conform to the original requirement.

responsible manager. The manager/supervisor who is responsible and held accountable for an activity or action.

*rework*. The process by which an item is made to conform to original requirements by completion or correction.

*right of access*. The right of a Purchaser or designated representative to enter the premises of a supplier for the purpose of inspection, surveillance, or quality assurance audit.

*risk*. A quantitative or qualitative measure of the likelihood and unfavorable consequence of an action. Consequences may be related to the public or employee safety, the environment, programmatic impact, cost, schedule, or public perception.

*safety*. An all-inclusive term used synonymously with environment, safety, and health to encompass protection of the public, the workers, and the environment.

	Identifier:	LST-649	
NGNP DEFINITIONS AND ACRONYMS	Revision:	0	
	Effective Date:	04/26/2011	Page: 16 of 21

safety application. Safety applications are those whose failure could adversely affect the environment, safety, or health of the public or workers. This term includes safety systems in nuclear facilities.

safety function. The performance of an item or service necessary to achieve the safe, reliable, and effective use of nuclear energy and nuclear material processing.

safety software. Software including the following:

- safety system software. Software for a nuclear facility that performs a safety function as part of an SSC and is cited in either a DOE approved documented safety analysis or an approved hazard analysis per DOE P 450.4, "Safety Management System Policy," dated 10-15-96, and the DEAR clause.
- safety analysis and design software. Software that is used to classify, design, or analyze nuclear facilities. This software is not part of an SSC but helps to ensure that the proper accident or hazards analysis of nuclear facilities or an SSC that performs a safety function.
- safety management and administrative controls software. Software that performs a hazard control function in support of nuclear facility or radiological safety management programs or technical safety requirements or other software that performs a control function necessary to provide adequate protection from nuclear facility or radiological hazards. This software supports eliminating, limiting or mitigating nuclear hazards to worker, the public, or the environment as addressed in 10 CFR 830, 10 CFR 835, and the DEAR ISMS clause.

*service*. The performance of activities such as design, fabrication, inspection, nondestructive examination, repair, or installation.

shelf-life. Any item possessing deteriorating or unstable characteristics to the degree that the storage period must be limited to assure the issuance of material that will perform satisfactorily in service; usually assigned by the manufacturer. If not assigned by the manufacturer and it is concluded by INL that one is required, it will be assigned by material inventory based on a written request from the laboratory subject matter expert or other cognizant technical representative.

shall. See guidance.

should. See guidance.

significant condition adverse to quality. A condition adverse to quality that, if uncorrected, could have a serious effect on safety or the ability to isolate waste, or is a serious/repetitive material or programmatic issue.

	Identifier:	LST-649	
NGNP DEFINITIONS AND ACRONYMS	Revision:	0	
	Effective Date:	04/26/2011	Page: 17 of 21

*software*. Computer programs and associated documentation and data pertaining to the operation of a computer system.

software as a service. A model of software deployment whereby a provider licenses an application to customers for use as a service on demand. software vendors may host the software as a service application on their own Web servers or download the application to the consumer device, disabling it after use or after the on-demand contract expires. The on-demand function may be handled internally to share licenses within a firm or by a third-party application service provider sharing licenses between firms. This does not include internal Web services.

software design verification. The process of determining if the product of the software design activity fulfills the software design requirements.

software development cycle. The activities that begin with the decision to develop a software product and end when the software is delivered. The software development cycle typically includes the following activities:

- software design requirements
- software design
- implementation
- test
- sometimes installation.

*software engineering* The study and application of a systematic, disciplined, quantifiable approach to the development, operation, and maintenance of software, i.e., the application of engineering to software.

software life cycle. The period of time that begins when a software product is conceived and ends when the software is no longer available for use. The life cycle typically includes a concept phase, requirements phase, design phase, implementation phase, test phase, installation and checkout phase, operation and maintenance phase, and sometimes, retirement phase. These phases may overlap or be performed iteratively, depending on the software development approach used.

software routine. A subprogram that is called by other programs and subprograms.

software tool. A computer program used in the development, testing, analysis, or maintenance of a program or its documentation. Examples include comparators, cross-reference generators, compilers CASE (Computer Aided Software Engineering) tools, configuration and code management software, decompilers, disassemblers, editors, flowcharters, monitor test case generators, and timing analyzers.

	Identifier:	LST-649	
NGNP DEFINITIONS AND ACRONYMS	Revision:	0	
	Effective Date:	04/26/2011	Page: 18 of 21

*Spares.* Items determined to be provided through inventory and held as replacement units for equipment in current use accompanied by a completed document that furnishes evidence of the quality level of the item.

support software. System software consists of system software and software tools

system software (software). Software designed to enable the operation and maintenance of a computer system and its associated computer programs.

*technical justification*. A statement defining the basis for the proposed course of action. This basis must be founded on statements of fact derived from calculations, evaluations, codes, standards, documented history, or other technical sources. Sufficient detail must exist to allow a peer to confirm the validity of the statement.

technical procedure (TPR). A procedure that directs technical processes through step-by-step instructions.

technical specialist. An individual who is assigned to an audit team when the scope, complexity, or special nature of the work to be audited warrants assistance from a technical standpoint.

*test/testing*. An element of verification for determining the capability of an item to meet specified requirements by subjecting the item to a set of chemical, physical, environmental, or operating conditions.

testing (software). The process of:

- Operating a system (software and hardware) or system component under specified conditions
- Observing and recording the results
- Making an evaluation of some aspect of the system (software and hardware) or system component in order to verify that it satisfies specified requirements and to identify errors.

test case (software). A set of test inputs, execution conditions, and expected results developed for a particular objective, such as to exercise a particular program path or to verify compliance with a specific requirement.

*test plan*. A document describing the approach to be taken for intended testing activities. The plan typically identifies the item to be tested, the testing to be performed, test sequences, personnel requirements, and evaluation criteria.

test plan, procedure (software). A document describing the approach to be followed for testing a system or component. The plan typically identifies the item(s) to be tested, the tasks to be performed and responsibilities for the testing activities.

	Identifier:	LST-649	
NGNP DEFINITIONS AND ACRONYMS	Revision:	0	
	Effective Date:	04/26/2011	Page: 19 of 21

testing. An element of verification for the determination of the capability of an item to meet specified requirements by subjecting the item to a set of physical, chemical, environmental, or operating conditions.

*traceability*. The ability to trace the history, application, or location of an item and like items or activities by means of recorded identification.

*training*. Systematic process provided to personnel so that they achieve proficiency, maintain proficiency, and adapt to changes in technology, methods, processes, or responsibilities as necessary to perform assigned tasks.

*use-as-is*. A disposition permitted for a nonconforming item when it has been established that the item is satisfactory for its intended use.

*verify*. The act of reviewing, inspecting, testing, checking, auditing, or otherwise determining whether items, processes, services, or documents conform to specified requirements.

*verification*. The act of reviewing, inspecting, testing, checking, auditing, or otherwise determining and documenting whether items, processes, services, or documents conform to specified requirements.

waiver. Documented authorization to depart from specified requirements.

work. A defined task or activity such as research and development, operations, environmental remediation, maintenance and repair, administration, safety software development/validation/testing and use, inspection, safeguards and security, and data collection and analysis.

	Identifier:	LST-649	
NGNP DEFINITIONS AND ACRONYMS	Revision:	0	
	Effective Date:	04/26/2011	Page: 20 of 21

#### 4. ACRONYMS

ANSI American National Standards Institute

ASME American Society of Mechanical Engineers

ASTM American Society of Test and Materials

BEA Battelle Energy Alliance, LLC

CFR Code of Federal Regulations

CGI Commercial Grade Item

DOE Department of Energy

ESH&QA Environmental, Safety, Health and Quality Assurance

ET electromagnetic testing

ICARE Issue Communication and Resolution Environment

INL Idaho National Laboratory

ISI in-service inspection

ISMS Integrated Safety Management System

ISO International Standards Organization

LPT liquid penetrant test

LRD Laboratory Requirements Document

LST list

LT leak testing

LWP Laboratory Wide Procedure

M&TE measuring and test equipment

MT magnetic particle testing

NCR nonconformance report

	Identifier:	LST-649	
NGNP DEFINITIONS AND ACRONYMS	Revision:	0	
	Effective Date:	04/26/2011	Page: 21 of 21

NDE nondestructive examination

NQA-1 ASME, Quality Assurance Requirements for Nuclear Facility Applications

NR neutron radiography

PDD Program Description Document

PRD Program Requirements Document

QA quality assurance

QAP quality assurance program

QE Quality Engineer

QPP quality program plan

R&D Research and Development

RT radiographic testing

S/CI suspect/counterfeit item

SNT Society for Nondestructive Testing

SSC system, structure, or component

STD standard

UT ultrasonic testing

V&V Verification and Validation

VT visual testing

#### 5. REFERENCES

None

#### 6. APPENDICES

None