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NRW-FPGA-Based I&C System Qualification Project

Software Configuration Management Plan

Title: Nuclear Instrumentation & Control Systems Department
Software Configuration Management Plan
for FPGA-based Safety-Related Systems

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1. Introduction

1.1. Purpose

This Nuclear Instrumentation & Control Systems Department (NICSD) Software Configuration Management Plan (NICSD SCMP) defines the software configuration management planning to be followed by NICSD in the development and procurement of the Field Programmable Gate Array (FPGA)-based safety-related Instrumentation and Control (I&C) systems for US nuclear power plants.

The NICSD SCMP considers the United States Nuclear Regulatory Commission (USNRC) Regulatory Guide (RG) 1.169 (Reference (1)) and IEEE 828-1990 (Reference (2)) endorsed and modified by the RG.

This NICSD SCMP complies with existing Power Systems Company Nuclear Energy (PSNE) AS standards and NICSD NQ standards to implement all safety-related activities. Requirements provided herein augment the PSNE nuclear Quality Assurance (QA) Program.

The Software Configuration Management (SCM) is the process for identifying software Configuration Items (CIs), controlling the implementation of changes to those CIs, recording and reporting the status of changes, and verifying the completeness and correctness of the released items. The SCM activities that NICSD shall perform include document control and media control. This NICSD SCMP shall be used in conjunction with NQ-2024 (Reference (3)) and NQ-2033 (Reference (4)).

1.2. Background

This NICSD SCMP is developed for the FPGA-based safety-related I&C systems for US nuclear power plants using Section 7 of Project document FA10-0501-0024, "Software Program Plan," (SPP) (Reference (13)) as a basis.

As described in Section 5.1 of "NICSD Software Management Plan for FPGA-based Safety-Related I&C Systems" (NICSD SMP) (Reference (18)), Nuclear Energy Systems & Services Division (NED) procures the FPGA-based safety-related I&C equipment from NICSD in the Fuchu Complex. NICSD procures the FPGA-based modules from Power Platform Development Department (PPDD) as commercial grade items for the equipment. This NICSD SCMP describes the configuration management activities performed by NICSD, including the configuration management associated with the commercial grade dedication work.

The NICSD SCMP is prepared to comply with software life cycle activities described in Section 13 of the NICSD SMP (Reference (18)), and uses IEEE Std. 828 (Reference (2)) as a guide.

1.3. Scope

This NICSD SCMP applies to the Toshiba's software configuration management activities from the Project Planning and Concept Definition Phase through the Retirement Phase in the software life cycle for the FPGA-based safety-related I&C systems.

The SPP (Reference (13)) establishes requirements and provides guidance and expectations for the design, development, implementation, safety analysis, review, testing, installation, and configuration

management etc. This NICSD SCMP implements Section 7 “Software Configuration Management Program Plan” of the SPP.

Table B shows the compliance traceability matrix of this NICSD SCMP to the SPP (Reference (13)).

This NICSD SCMP addresses the software configuration activities in the software life cycles defined in the NICSD SMP (Reference (18)). The following software is excluded from the requirements of this NICSD SCMP:

- Administrative software used for ordering, scheduling, project management, and engineering (e.g. FREEWAY-IS, and GENESIS)
- Commercial standard office software such as Microsoft® Office Word, Excel, Project, Power Point, Visio, and Access

2. Abbreviations

AS	Toshiba Nuclear Energy Systems and Services Division Work Standard
BRR	Baseline Review Report
C of C	Certificate of Conformance
CAR	Corrective Action Request
CG	Commercial Grade
CGD	Commercial Grade Dedication
CI	Configuration Item
DCN	Design Change Notice
DCR	Documents Change Request
DCTR	Design Change Technical Report
ECS	Engineering Communication Sheet
FE	Functional Element
FPGA	Field Programmable Gate Array
FSAR	Final Safety Analysis Report
Fuchu-PS	Fuchu Complex Power Systems Segment
I&C	Instrumentation and Control
IBD	Interlock Block Diagram
ICDD	Instrumentation & Control Systems Design & Engineering Department
IED	Instrumentation Electrical Diagram
IEEE	Institute of Electrical and Electronics Engineers
IV&V	Independent Verification and Validation
IV&V Lead	Independent Verification and Validation Lead
MCL	Master Configuration List
NED	Nuclear Energy Systems & Services Division
NICSD	Nuclear Instrumentation & Control Systems Department
NICS-QA	Quality Assurance Group for NICSD
NNR	Nonconformance Notice Report
NQ	Nuclear Quality
PM	Project Manager
PPDD	Power Platform Development Department
PSNE	Power Systems Company Nuclear Energy
QA	Quality Assurance

RG	Regulatory Guide
SC	Software Configuration
SC Team	Software Configuration Team
SCAR	Site Corrective Action Request
SCL	Software Configuration Lead
SCM	Software Configuration Management
SCMP	Software Configuration Management Plan
SD	Software Development
SD Team	Software Development Team
SDD	System Design Description
SDL	Software Development Lead
SMP	Software Management Plan
SNNR	Site Nonconformance Notice Report
SPP	Software Program Plan
SQAL	Software Quality Assurance Lead
SQAP	Software Quality Assurance Plan
USNRC	United States Nuclear Regulatory Commission
V&V	Verification and Validation
VHDL	Very High Speed Integrated Circuit Hardware Definition Language
VNNR	Vendor Nonconformance Notice Report
VVP	Verification and Validation Plan

3. Reference Documents

- (1) Regulatory Guide 1.169-1997, Rev. 0,
"Configuration Management Plans for Digital Computer Software used in Safety Systems of Nuclear Power Plants"
- (2) IEEE Standard 828-1990,
"IEEE Standard for Software Configuration Management Plans"
- (3) Toshiba Nuclear Instrumentation & Control Systems Department NQ-2024,
"Document Control Procedure"
- (4) Toshiba Nuclear Instrumentation & Control Systems Department NQ-2033,
"Procedural Standard for FPGA Configuration Management"
- (5) Toshiba Nuclear Instrumentation & Control Systems Department NQ-2035,
"Procedure for Design Change Control"
- (6) Toshiba Nuclear Instrumentation & Control Systems Department NQ-3006,
"Procedure for Control of Nonconforming Procurement Items and Services"
- (7) Toshiba Nuclear Instrumentation & Control Systems Department NQ-3019,
"Procedure for Control of Nonconformance and Corrective Action"
- (8) Toshiba Nuclear Instrumentation & Control Systems Department NQ-4001,
"Commercial Grade Dedication"
- (9) Toshiba Fuchu-PS document D-81030,
"Standard for Document System"
- (10) Toshiba PPDD document E-68017,
"Procedural Standard for FPGA Device Development"
- (11) Toshiba PPDD document E-68019,
"Procedural Standard for FPGA Configuration Management"
- (12) Not used

- (13) Toshiba Project Document Number FA10-0501-0024,
“Software Program Plan” Rev.0
- (14) Toshiba Project Document Number FA10-0301-0001,
“Project Specific Document Control Procedure”, Rev.0
- (15) Not used
- (16) Not used
- (17) Toshiba Project Document Number FA32-3702-0005,
“Nuclear Energy Systems and Services Division FPGA-based Safety-Related Systems Software Management Plan” Rev.0,
- (18) Toshiba Project Document Number FA32-3702-1000,
“Nuclear Instrumentation & Control Systems Department Software Management Plan for FPGA-based Safety-Related Systems” Rev.1,
- (19) Toshiba Project Document Number FA32-3709-1000,
“Nuclear Instrumentation & Control Systems Department Verification and Validation Plan for FPGA-based Safety-Related Systems” Rev.2,
- (20) Toshiba Project Document Number FA32-3701-1001,
“Nuclear Instrumentation & Control Systems Department Software Quality Assurance Plan for FPGA-based Safety-Related Systems”, Rev.1,

Notice: When applying the above standards of NED and NICSD, and other Toshiba internal standards, the latest version shall be used.

4. SCM Management

This section describes the project’s organization structure, roles, and responsibilities.

4.1. Organization

The organizations responsible for development of the FPGA-based systems software design are described in Section 5.1 of the NICSD SMP (Reference (18)).

4.2. Responsibilities

The NICSD Software Configuration Lead (NICSD SCL) assigned by the NICSD Software Development Lead (SDL) is responsible for the SCM activities in the project. The NICSD SCL shall report significant change of CIs to the NICSD Project Manager (NICSD PM).

The NICSD SDL shall assign NICSD Software Configuration Librarians (NICSD SC Librarians) from the NICSD Software Development Team (NICSD SD Team) members. The NICSD SCL shall lead the NICSD Software Configuration Team (NICSD SC Team) which consists of the NICSD SCL and NICSD SC Librarians.

The NICSD SCL shall manage the activities of the NICSD SC Librarians. The NICSD SC Librarians shall be responsible for CI control for hardware, software, and system configurations.

The NICSD SC Librarians are responsible for observing a NICSD Master Configuration List (NICSD MCL) that is appropriately prepared and updated by the NICSD SD Team members who are not NICSD SC Librarians. The NICSD SC Librarians are responsible for reporting status of the NICSD MCL to the NICSD SCL.

The NICSD SCL or responsible manager designated by the NICSD PM shall be responsible for each master file described in Section 7.2 of this SCMP.

The NICSD SC Librarians shall be responsible for maintenance of the master file described in Section 7.2 of this SCMP.

The NICSD Independent Verification and Validation Lead (NICSD IV&V Lead) is responsible for baseline reviews as described in Section 4.6.3 of the NICSD Verification and Validation (V&V) Plan (NICSD VVP) (Reference (19)).

The NICSD Software Quality Assurance Lead (NICSD SQAL) is responsible for audits and reviews of the SCM activities described in Section 7 of the NICSD Software Quality Assurance Plan (NICSD SQAP) (Reference (20)).

5. SCM Activities

5.1. Configuration Identification

5.1.1. Identifying Configuration Items

The CIs include but are not limited to the following items. The NICSD SDL can add CIs as deemed necessary. The CIs shall include intermediate and final revisions.

- 1) NED Job Order Sheet
- 2) The documents and records identified in Table-A of the NICSD SMP (Reference (18))
- 3) Reports and records for Commercial Grade Dedication (CGD) activity in accordance with NQ-4001 (Reference (8))
 - a. Inspection Records/Reports
 - b. Source Verification Reports
 - c. Certificate of Conformance (C of C) provided by PPDD
 - d. Documents of software development tools described in Section 8.1.2 of the NICSD SMP (Reference (18)).
- 4) Audit Report, Nonconformance Notice Reports (NNRs) and Corrective Action Requests (CARs) in accordance with NQ-3006 (Reference (6)) and NQ-3019 (Reference (7))
 - a. Audit Reports
 - b. Fuchu Site Nonconformance Notice Report (SNNR)
 - c. Vendor Nonconformance Notice Report (VNNR)
 - d. Fuchu Site Corrective Action Request (SCAR)
- 5) Design change documentation in accordance with NQ-2024(Reference (3)) and NQ-2035 (Reference (5))
 - a. Documents Change Request (DCR)
 - b. Design Change Notice (DCN)
 - c. Design Change Technical Report (DCTR)

5.1.2. Naming Configuration Items

A document number and a revision number shall be given to each CI for identification purpose. The responsible NICSD personnel shall control the project documents in accordance with the project document "Project Specific Document Control Procedure" (Reference (14)) and NQ-2024 (Reference (3)).

The NICSD SD Team shall follow the document-numbering and revision rule specified in the project document "Project Specific Document Control Procedure" (Reference (14)). As for the documents and records, for which the numbering rules is not specified in the "Project Specific Document Control Procedure" (Reference (14)), the NICSD internal standards that provide unique document identification may be applied as necessary.

PPDD follows the document-numbering and revision rule specified in D-81030 (Reference (9)). PPDD follows numbering and revision rule for FEs, FPGA logics, FPGA Control Sheets, and media recorded these electronic files, which specified in E-68019 (Reference (11)). PPDD follows the VHDL source code-naming rule specified in E-68017 (Reference (10)).

5.2. Configuration Control

5.2.1. Software Release Report

A PPDD Module Master Configuration List (MCL) and NICSD MCL are treated as software release reports.

1) PPDD Module MCL

The PPDD Module MCL is submitted by PPDD in the Module Validation Testing Phase, after the module validation testing and NICSD IV&V activity for this phase are successfully completed. The PPDD Module MCL lists the Module Test Report, and FPGA Control Sheets that identify the FPGA configuration items including a Very High Speed Integrated Circuit Hardware Definition Language (VHDL) source code, FPGA logic (fusemap), FPGA design and test documents, and version of software development tool.

2) NICSD MCL

The NICSD MCL is prepared by the NICSD SD Team, and controlled as described in Section 5.2.2 of this SCMP. The NICSD MCL is finalized during the System Validation Testing Phase, after the system validation testing and NICSD IV&V activity for this phase are successfully completed. The NICSD MCL lists all the necessary documents and items for the configuration management of software and hardware, related records and reports, and the status of the CIs.

5.2.2. NICSD Master Configuration List (NICSD MCL)

The NICSD SD Team shall generate or update the NICSD MCL in each software lifecycle phase. The NICSD SC Librarian conducts the configuration management assessment for the NICSD MCL in each software lifecycle phase as described in Section 5.2.4 of this SCMP. The NICSD MCL shall be maintained in an electronic configuration management system.

Each CI listed in the NICSD MCL has the status information for indicating the status of the CI after the initial entry to the NICSD MCL. The status information should show each CI status including but not limited to:

- 1) Approved for Baseline "XXXXXX" ("XXXXX" is the name of each Phase)

- 2) Change request has been issued
- 3) Change request is under evaluation (see Section 5.2.6)
- 4) Change Control has been approved
- 5) Change is under implementation
- 6) CI is updated and approved

The NICSD SCL has the authority to define the categorization of the status. The NICSD MCL shall be stored in the electronic configuration management system. Only the NICSD project members have the access right to the NICSD MCL.

5.2.3. Configuration Status Accounting

The NICSD SCL or his designee shall perform a configuration status accounting for the NICSD MCL and PPDD Module MCL in each phase. The NICSD SCL or his designee shall confirm the latest status of the CIs in the NICSD MCL and PPDD Module MCL. The NICSD SCL or his designee shall report the status of each CI or any concerns related to configuration management at the periodic ICDD-NICSD Project Meetings.

5.2.4. Configuration Management Assessment

The NICSD SC Team conducts the configuration management assessment for the NICSD MCL and PPDD Module MCL in each phase before baseline review by the NICSD IV&V Team. The NICSD SC Librarians shall be responsible for preparing a configuration management assessment report regarding the following items.

- Required activities are completed on the required outputs
- Adequacy of quality assurance as defined in NICSD SQAP
- Appropriate configuration controls (according to SCMP) are in place to monitor design activities including document revision and track changes control.

The result of the configuration management assessment shall be reported to the NICSD SCL. The NICSD SCL has responsibility for approving the configuration management assessment report. This process allows the NICSD IV&V Team to initiate a baseline review.

5.2.5. Configuration Management Review

After the configuration management assessment, the NICSD IV&V Team performs a baseline review as described in Section 5.3.3 of this SCMP.

5.2.6. Change Control

NICSD shall invoke the change control in case that the baseline CI change is necessary. Configuration change control method is specified NQ-2033. Any project members can issue a change request. The change request for document can be issued using the Documents Change Request (DCR) in accordance with NQ-2024. An Engineering Communication Sheet (ECS) including the necessary information for change request can be used. A report from a supplier can be input information for a change request. Suppliers can use a VNNR in accordance with NQ-3006 and ECS for change request.

The responsible design group shall identify the design change, and evaluate the impact of change in accordance with NQ-2035. The DCTR is used to record the evaluation of the impact of proposed change and the result of design change. If the change has impact outside the NICSD and PPDD, each

NICSD SDL requests NED review of design change using an ECS prior to implementing the design change.

5.3. Configuration Audits and Baseline Reviews

5.3.1. NICSD Audit

The Quality Assurance Group for NICSD (NICS-QA) conducts the NICSD internal audit as described in Section 7.1 of the NICSD SQAP (Reference (20)). In this audit, NICS-QA evaluates if the NICSD SCMP is implemented appropriately.

5.3.2. Vendor Survey

NICS-QA performs the Commercial Grade (CG) Survey of PPDD as described in Section 7.2 of the NICSD SQAP (Reference (20)). NICS-QA evaluates whether the PPDD has acceptable methods, processes, and procedures for configuration management, and implement the configuration management appropriately.

5.3.3. Baseline Review

The NICSD IV&V Team performs a baseline review at the end of each phase as described in Section 4.6.3 of the NICSD VVP (Reference (19)). NICS-QA also participates in the baseline review as described in Section 7.1 of the NICSD SQAP (Reference (20)) and evaluates that the SCM activities are correctly performed, especially that the CIs in the NICSD MCL are correctly generated and controlled.

5.4. Interface Control

The FPGA-based systems have some interface items designed outside this FPGA-based systems project scope.

- 1) Sensor design specification
- 2) Communication specification with other I&C systems in nuclear power plant
- 3) Hardware indications, switches in the Main Control Console or local panels

These interface items are designed by organizations within or outside Toshiba. As described in Section 5.3 of the NED SMP (Reference (17)) the interface specifications are described or delineated in System Design Descriptions (SDDs), Interlock Block Diagrams (IBDs), Instrumentation Electrical Diagrams (IEDs), or Inputs and Outputs lists, which are included in the procurement documents being sent to NICSD.

6. Schedule

The SCM activities and milestones are developed and controlled as described in the NICSD SMP (reference (18))

7. Software Configuration Management Resources

7.1. Tools

The NICSD SCL, NICSD SC Librarians and responsible NICSD personnel will use some commercial-standard office software for the SCM activities as described in Section 8.1.1 of the NICSD SMP (Reference (18)).

7.2. Master File Repository

As described in Section 13.4.5 of the NICSD SMP (Reference (18)), after the FPGA Test Report is reviewed and approved by NICSD, PPDD submit an electronic media and PPDD Module MCL including the FPGA control sheet, VHDL source code, FPGA logic (fusemap) and related configuration items.

The NICSD SD Team prepares a master media and copy media, and stores the master and copy media in accordance with NQ-2033 (Reference (4)). The master media and copy media are controlled under NICSD. In this NICSD SCMP, the master media prepared by the NICSD SD Team are treated as the master file.

The master media shall be maintained by the NICSD SC Librarians. The NICSD SC Librarians shall perform media control activities in accordance with NQ-2033 (Reference (4)). The master media are stored in the steel storage locker of the media storeroom in NICSD separate from local PCs used by project engineers during systems and software development. The media storeroom access is restricted by IC card. The key of the steel storage locker is controlled by the NICSD SCL or responsible manager. The master media shall be maintained until the Retirement Phase. The master media shall be created when a new FPGA logic is released. The master media shall contain the current and past revisions.

7.3. Training

The personnel involved in the SCM activities for the project shall be trained on this NICSD SCMP by either classroom training or self-study. The NICSD SCL has the responsibility for this training. The software training plan is described in Section 15 of the NICSD SMP (Reference (18)).

8. Life Cycle Task Iteration Process

The life cycle task iteration process is described in Section 13.9 of the NICSD SMP (Reference (18)).

9. NICSD SCMP Maintenance

The NICSD SCMP shall be maintained in accordance with Section.16 of the NICSD SMP (Reference (18)).

10. Deviations

10.1. Deviation Policy

The deviation policy is described in Section 17.1 of the NICSD SMP (Reference (18)).

10.2. Deviation from NICSD SCMP

None

Appendix A: Compliance Traceability Matrix of the Section 7 of Software Program Plan

Table A Compliance Traceability Matrix of the Section 7 of Software Program Plan

Section in the SPP	Section in this SCMP
7.1 Introduction	1. Introduction
7.1.1 Purpose	1.1 Purpose
7.1.2 Scope	1.3 Scope
7.1.3 [Deleted]	-
7.1.4 Relationship of the SCMP to Other SPP Sections	-
7.2 Software Configuration Management Overview	-
7.2.1 Organization	4.1 Organization
7.2.2 Responsibilities	4.2 Responsibilities
7.2.3 SCMP Program Records	-
7.2.3.1 System Specific SCMP	This SCMP
7.2.3.2 Software Release Report	5.2.1 Software Release Report 5.2.2 NICSD Master Configuration List (NICSD MCL)
7.2.4 Applicable Policies, Directives, and Procedures	5.2.2 NICSD Master Configuration List (NICSD MCL)
7.2.5 Schedule	6 Schedule
7.3 Software Configuration Management Resources	5.2.2 NICSD Master Configuration List (NICSD MCL)
7.3.1 Tools	Section 8.1.2 NICSD SMP
7.3.2 Master File Repository	7.2 Master File Repository
7.3.3 Training	7.3 Training
7.4 Software Configuration Management Activities	5 SCM Activities
7.4.1 Configuration Identification	5.1 Configuration Identification
7.4.1.1 Identifying Configuration Items	5.1.1 Identifying Configuration Items
7.4.1.2 Naming Configuration Items	5.1.2 Naming Configuration Items 7.2 Master File Repository
7.4.1.3 Acquiring Configuration Items	7.2 Master File Repository
7.4.2 Anomaly Reporting, Corrective Action, and Change Control	5.1.1 Identifying Configuration Items 5.2.6 Change Control 8 Life Cycle Task Iteration Process 9 NICSD SCMP Maintenance
7.4.2.1 Requesting Changes	5.2.6 Change Control 9 NICSD SCMP Maintenance
7.4.2.2 Evaluating Changes	
7.4.2.3 Approving or Disapproving Changes	
7.4.2.4 Implementing Changes	5.2.2 NICSD Master Configuration List (NICSD MCL) 5.2.3 Configuration Status Accounting
7.4.3 Configuration Status Accounting	
7.4.4 Configuration Audits and Baseline Reviews	
7.4.5 Interface Control	5.3 Configuration Audits and Baseline Review
7.4.6 Subcontractor and Vendor Control	5.4 Interface Control
	5.1.1 Identifying Configuration Items 5.2.2 NICSD Master Configuration List (NICSD MCL) 5.2.4 Configuration Management Assessment 5.2.6 Change Control 5.3.2 Vendor Survey
7.5 Software Release Report	5.2 Configuration Control 7.2 Master File Repository
7.6 Software Configuration Management Schedule	5 SCM Activities 6 Schedule
7.7 Software Configuration Management Process Requirements	7.1 Tools 7.3 Training
7.8 Software Configuration Management Plan Maintenance	6 Schedule 9 NICSD SCMP Maintenance

Appendix B: Sample Forms

Appendix B1: Baseline Review Report including configuration management assessment report

This is an example of the form to be used for the Baseline Review Report including the configuration management assessment report.

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Report No.: BRR-

Rev.

Baseline Review Report

1. Project Identification

Project Name:

Equipment Name:

2. Configuration Management Assessment Report

Objective Phase Name:

Scope:

Configuration Items:

No.	Doc/Report Name/ID	Approved Date	Notes

Comments:

Preparer: (Signature and date)

Software Configuration Lead: (Signature and date)

3. Baseline Review Report

Findings and comments:

Conclusion:

Baseline Review Attendee:

Signature of IV&V Team Lead: (Signature and date)

Signature of Software QA Lead: (Signature and date)

Appendix C: Procedural Steps for Configuration Management Assessment and Baseline Review

1. The following activities are performed in each of the lifecycle phases.

Step No.	Activities	Responsibility	Remarks
1	Approve configuration items (CIs) in the phase subject to review, and approve the V&V Report.	Personnel responsible for each CI	
2	Prepare a draft of the NICSD Master Configuration List (MCL).	NICSD SD Team	
3	Check the NICSD MCL contents. Prepare the Open Item List.	NICSD SC Team	This activity is performed as a part of the configuration management assessment activities in accordance with Section 5.2.4.
4	Send notification of Baseline Review meeting to required and optional attendees.	NICSD IV&V Team	Required Attendees: NICSD SDL or its designee, NICSD SCL or its designee, NICSD SQAL or its designee, and NICSD IV&V Team Lead Optional Attendees: NICSD PM, ICDD IV&V Team, and other NED personnel as necessary
5	Hold a Baseline Review meeting. - Check the status of respective CIs. - Review the draft NICSD MCL and the Open Item List.	NICSD IV&V Team	The personnel responsible for steps 2, 3, and 4 provide supporting materials as evidence of each step at the meeting in paper or electronic form.
6	Issue Baseline Review meeting minutes.	NICSD IV&V Team	
7	Revise CIs, issue additional CIs, and take dispositions and/or corrective actions as required, in response to comments provided at the Baseline Review meeting. Those activities above are to be completed in the phase subject to review.	Personnel responsible for each CI	
8	Issue the NICSD MCL.	NICSD SD Team	This MCL does not include the identification of this MCL itself and the BRR that are to be prepared in the phase subject to review. This MCL includes the identification of the MCL and the BRR that were prepared in the previous phase(s).

Step No.	Activities	Responsibility	Remarks
9	Prepare the Configuration Management Assessment Report (which is a part of the Baseline Review Report) to which the Open Item List is attached that includes results of impact evaluation by the NICSD SD Team.	NICSD SC Team	This activity is performed as a part of the configuration management assessment activities in accordance with Section 5.2.4.
10	Issue the Baseline Review Report (BRR) including: <ul style="list-style-type: none"> - Reference to the Baseline Review meeting minutes, - Findings, comments, and instructions if any, and - The Open Item List that includes results of impact evaluation by the NICSD IV&V Team. 	NICSD IV&V Team	<p>The BRR is prepared using the sample form of Appendix B in the NICSD SCMP.</p> <p>The BRR is issued as a project document with a cover sheet and revision history in accordance with the project specific document control procedures.</p> <p>The cover sheet of the BRR includes a following signature block into which the NICSD SQA Team provides signature after verification.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>NICSD SQAL verified this document; Verified by _____ Group Name _____ Date _____</p> </div>
11	Verify the BRR (Signature provided by the NICSD SQA Team on the BRR cover sheet.), and Issue the Software Surveillance Report.	NICSD SQA Team	The Software Surveillance Report is prepared using the format of Internal Audit Report in accordance with the NICSD SQAP.

2. After the activities in Section 1 are completed, the following activities are performed in the System Validation Testing Phase to finalize the NICSD MCL.

Step No.	Activities	Responsibility	Remarks
1	Add the identification of the approved NICSD MCL, BRR, and Software Surveillance Report to the NICSD MCL to finalize and issue the MCL.	NICSD SD Team	