NCSX CMP Peer Review
December 17, 2002

Resolution of NCSX CMP & PROC-002 Peer Review Chits, conducted on 12/17/02, has been successfully completed and all CHITs closed out.

Review Board Comment/Recommendation and Close Out:

_____

Concur: Frank Malinowski, Peer Review Chair

Cognizant Engineer's Response/Disposition/Closeout:

_____

Robert Simmons, Adv. Projects

RLM Review:

_____

Concur: Wayne Reiersen, NCSX RLM

PPPL DESIGN REVIEW CHIT

WP # _____ (ENG-032)

CHIT # ___1___

COMPONENT/SUBSYSTEM/SYSTEM NCSX CM Plan & Procedure 002	☒ PEER
	☐ CDR
COGNIZANT DESIGN ENGINEER R. Simmons_____DATE OF REVIEW 12-17-02_____	☐ PDR
	☐ FDR

SUBJECT: (CHECK AS APPLICABLE)

☐ REQUIREMENTS   ☐ HARDWARE   ☐ SAFETY
☐ ANALYSIS   ☐ CONFIGURATION   ☐ COST/SCHEDULE
☐ PERFORMANCE   ☐ RELIABILITY /MAINTAINABILITY   ☐ QUALITY

COMMENT/CONCERN/RECOMMENDATION

Need designated calculation/analysis ID & storage area.
Use PPPL procedure & DMP to cover ID & storage.

ORIGINATOR ___F. Malinowski___
NAME/ORGANIZATION QA

REVIEW BOARD COMMENT/RECOMMENDATION
(Address technical, cost, and schedule impacts as appropriate. If CHIT is not adopted, provide technical reaso
do not simply state "out-of-scope or N/A" without explaining.)

Will modify as suggested above.

X CONCUR
0 DISAGREE
0 OTHER   CHAIRPERSON F. Malinowski_____ DATE: 12/18/02

COGNIZANT DESIGN ENGINEER'S RESPONSE/DISPOSITION:
(Malinowski) Need designated calculation/analysis ID and storage area. Suggest using
PPPL procedure and Data Management Plan (DMP) to cover ID and storage requirements

- Modified Document and Records Plan (DOC) and DMP accordingly.

SIGNATURE R. Simmons_____ DATE: 12/18/02

RESPONSIBLE RLM REVIEW

X APPROVE COG DISPOSITION
0   DISAPPROVE COG DISPOSITION   SIGNATURE W. Reiersen DATE: 12/18/02

COGNIZANT DESIGN ENGINEER CLOSE-OUT
Sign when action required by disposition is complete.

SIGNATURE R. Simmons DATE: 2/25/03

PPPL DESIGN REVIEW CHIT

WP # _____ (ENG-032)

CHIT # ___2___

COMPONENT/SUBSYSTEM/SYSTEM NCSX CM Plan & Procedure 002

⊠ PEER
☐ CDR
☐ PDR
☐ FDR

COGNIZANT DESIGN ENGINEER R. Simmons _____ **DATE OF REVIEW** 12-17-02

SUBJECT: (CHECK AS APPLICABLE)

☐ REQUIREMENTS ☐ HARDWARE ☐ SAFETY
☐ ANALYSIS ☐ CONFIGURATION ☐ COST/SCHEDULE
☐ PERFORMANCE ☐ RELIABILITY/MAINTAINABILITY ☐ QUALITY

COMMENT/CONCERN/RECOMMENDATION

The cost & schedule baseline should physically be two tables: a table of milestones and a table of costs (with contingency) at a level of granularity determined by the NCSX Project Manager.

ORIGINATOR ___J. Schmidt___

NAME/ORGANIZATION

REVIEW BOARD COMMENT/RECOMMENDATIONS
(Address technical, cost, and schedule impacts as appropriate. If CHIT is not adopted, provide technical reaso
do not simply state "out-of-scope or N/A" without explaining.)

P3 has the details (resource-loaded schedule) but can extract tables as requested.

0 CONCUR
0 DISAGREE
X OTHER   CHAIRPERSON F. Malinowski _____ DATE: 12/18/02

COGNIZANT DESIGN ENGINEER'S RESPONSE/DISPOSITION:

- The resource-loaded database (P3) certainly has the capability to summarize the details at whatever level desired. However, subsequent discussions with the NCSX Project Manager indicated that the current wording in the CMP is adequate and doe not need changing.

SIGNATURE R. Simmons _____ DATE: 12/18/02

RESPONSIBLE RLM REVIEW

X APPROVE COG DISPOSITION
0 DISAPPROVE COG DISPOSITION   SIGNATURE W. Reiersen DATE: 12/18/02

COGNIZANT DESIGN ENGINEER CLOSE-OUT
Sign when action required by disposition is complete.

SIGNATURE R. Simmons DATE: 2/25/03

PPPL DESIGN REVIEW CHIT

WP # _____ (ENG-032)

CHIT # ___3___

COMPONENT/SUBSYSTEM/SYSTEM NCSX CM Plan & Procedure 002

COGNIZANT DESIGN ENGINEER R. Simmons   DATE OF REVIEW 12-17-02

- ☒ PEER
- ☐ CDR
- ☐ PDR
- ☐ FDR

SUBJECT: (CHECK AS APPLICABLE)

- ☒ REQUIREMENTS
- ☐ HARDWARE
- ☐ SAFETY
- ☐ ANALYSIS
- ☐ CONFIGURATION
- ☐ COST/SCHEDULE
- ☐ PERFORMANCE
- ☐ RELIABILITY / MAINTAINABILITY
- ☐ QUALITY

COMMENT/CONCERN/RECOMMENDATION

PPPL Procedure on the ECN (ENG-010) requires RLM signature and the RLM may not be NCSX WBS Manager or even at the working level for NCSX.

ORIGINATOR ___L. Dudek___

NAME/ORGANIZATION

REVIEW BOARD COMMENT/RECOMMENDATION
(Address technical, cost, and schedule impacts as appropriate. If CHIT is not adopted, provide technical reaso
do not simply state "out-of-scope or N/A" without explaining.)

Need to make NCSX Engrg. Mgr. RLM.

0 CONCUR
0 DISAGREE
X OTHER   CHAIRPERSON F. Malinowski   DATE: 12/18/02

COGNIZANT DESIGN ENGINEER'S RESPONSE/DISPOSITION:

- The Head of Engineering has verbally confirmed that the NCSX Engineering Manager is the NCSX RLM.

SIGNATURE R. Simmons   DATE: 12-18-02

RESPONSIBLE RLM REVIEW

X APPROVE COG DISPOSITION
0   DISAPPROVE COG DISPOSITION   SIGNATURE W. Reiersen DATE: 12-18-02

COGNIZANT DESIGN ENGINEER CLOSE-OUT
Sign when action required by disposition is complete.

SIGNATURE R. Simmons DATE: 2/25/03

PPPL DESIGN REVIEW CHIT

WP # _____ (ENG-032)

CHIT # ___4___

COMPONENT/SUBSYSTEM/SYSTEM NCSX CM Plan & Procedure 002

☒ PEER
☐ CDR
☐ PDR
☐ FDR

COGNIZANT DESIGN ENGINEER R. Simmons   DATE OF REVIEW 12-17-02

SUBJECT: (CHECK AS APPLICABLE)

☐ REQUIREMENTS   ☐ HARDWARE   ☐ SAFETY
☐ ANALYSIS   ☐ CONFIGURATION   ☐ COST/SCHEDULE
☐ PERFORMANCE   ☐ RELIABILITY /MAINTAINABILITY ☐ QUALITY

COMMENT/CONCERN/RECOMMENDATION

Add "closed" to status notes on ECP status log.

ORIGINATOR ___C. Neumeyer___

NAME/ORGANIZATION

REVIEW BOARD COMMENT/RECOMMENDATION
(Address technical, cost, and schedule impacts as appropriate. If CHIT is not adopted, provide technical reaso
do not simply state "out-of-scope or N/A" without explaining.)

Revise NCSX Procedure 002.

X CONCUR
0 DISAGREE
0 OTHER   CHAIRPERSON F. Malinowski   DATE: 12/18/02

COGNIZANT DESIGN ENGINEER'S RESPONSE/DISPOSITION:

- NCSX Procedure 002 revised accordingly.

SIGNATURE R. Simmons   DATE: 12-18-02

RESPONSIBLE RLM REVIEW

X APPROVE COG DISPOSITION
0 DISAPPROVE COG DISPOSITION   SIGNATURE W. Reiersen DATE: 12-18-02

COGNIZANT DESIGN ENGINEER CLOSE-OUT
Sign when action required by disposition is complete.

SIGNATURE R. Simmons DATE: 2/25/03

PPPL DESIGN REVIEW CHIT

WP # _____ (ENG-032)

CHIT # ___5___

COMPONENT/SUBSYSTEM/SYSTEM NCSX CM Plan & Procedure 002

☒ PEER
☐ CDR
☐ PDR
☐ FDR

COGNIZANT DESIGN ENGINEER R. Simmons _____ DATE OF REVIEW 12-17-02

SUBJECT: (CHECK AS APPLICABLE)

☐ REQUIREMENTS   ☐ HARDWARE   ☐ SAFETY
☐ ANALYSIS   ☐ CONFIGURATION   ☐ COST/SCHEDULE
☐ PERFORMANCE   ☐ RELIABILITY/MAINTAINABILITY ☐ QUALITY

COMMENT/CONCERN/RECOMMENDATION

Current ECN Procedure (ENG-010) is tied into the PPPL Work Planning Form (WP) procedure (ENG-032). This needs to be reconciled with the NCSX CMP that does not mention the WP.

ORIGINATOR ___L. Dudek___

NAME/ORGANIZATION

REVIEW BOARD COMMENT/RECOMMENDATION
(Address technical, cost, and schedule impacts as appropriate. If CHIT is not adopted, provide technical reaso do not simply state "out-of-scope or N/A" without explaining.)

1. Need to clarify NCSX use of WP in SEMP.
2. Current ENG-010 allows RLM to not require a WP.

X CONCUR

0 DISAGREE

0 OTHER   CHAIRPERSON F. Malinowski _____ DATE: 12/18/02

COGNIZANT DESIGN ENGINEER'S RESPONSE/DISPOSITION:

- The use of the WP on NCSX has been clarified in the Systems Engineering Management Plan (SEMP) and with PPPL Deputy Director => The NCSX Project (Simmons) has propose modifications to both ENG-010 and ENG-032 that hopefully will clarify this issue => on NCS. a WP will be required for <u>any</u> fabrication, whether on or off site. In any case, a Work Plannin Form may be used at the discretion of the cognizant engineer with the concurrence of the responsible RLM."
- The ECN form in NCSX Procedure 002 has been revised to include the applicable check lis items from the WP form.

SIGNATURE R. Simmons _____ DATE: 12-18-02

RESPONSIBLE RLM REVIEW

X APPROVE COG DISPOSITION
0 DISAPPROVE COG DISPOSITION   SIGNATURE W. Reiersen DATE: 2/25/03

COGNIZANT DESIGN ENGINEER CLOSE-OUT
Sign when action required by disposition is complete.

SIGNATURE R. Simmons DATE: 2/25/03

PPPL DESIGN REVIEW CHIT

WP # _____ (ENG-032)

CHIT # ___6___

COMPONENT/SUBSYSTEM/SYSTEM NCSX CM Plan & Procedure 002	☒ PEER
	☐ CDR
COGNIZANT DESIGN ENGINEER R. Simmons _____ DATE OF REVIEW 12-17-02	☐ PDR
	☐ FDR

SUBJECT: (CHECK AS APPLICABLE)

☐ REQUIREMENTS   ☐ HARDWARE   ☐ SAFETY
☐ ANALYSIS   ☐ CONFIGURATION   ☐ COST/SCHEDULE
☐ PERFORMANCE   ☐ RELIABILITY/MAINTAINABILITY   ☐ QUALITY

COMMENT/CONCERN/RECOMMENDATION

Exclude WP's from being required to initiate ECNs during construction. Modify ECP inputs page to address all applicable impacts flagged on the WP form.

ORIGINATOR ___Reiersen___

NAME/ORGANIZATION

REVIEW BOARD COMMENT/RECOMMENDATION
(Address technical, cost, and schedule impacts as appropriate. If CHIT is not adopted, provide technical reaso
do not simply state "out-of-scope or N/A" without explaining.)

1. Agree, will modify ECP form to include WP check list.
2. ENG-010 permits RLM to not require use of WP.
3. NCSX needs to clarify w/Deputy Director on when WP needed for NCSX.

X CONCUR
0 DISAGREE
0 OTHER   CHAIRPERSON F. Malinowski _____ DATE: 12/18/02

COGNIZANT DESIGN ENGINEER'S RESPONSE/DISPOSITION:

- See response to Chit #5. All actions completed.

SIGNATURE R. Simmons _____ DATE: 12-18-02

RESPONSIBLE RLM REVIEW

X APPROVE COG DISPOSITION	
0 DISAPPROVE COG DISPOSITION	SIGNATURE W. Reiersen DATE: 2/25/03

COGNIZANT DESIGN ENGINEER CLOSE-OUT
Sign when action required by disposition is complete.

SIGNATURE R. Simmons   DATE: 2/25/03

PPPL DESIGN REVIEW CHIT

WP # _____ (ENG-032)

CHIT # ___7___

COMPONENT/SUBSYSTEM/SYSTEM NCSX CM Plan & Procedure 002	☒ PEER
	☐ CDR
COGNIZANT DESIGN ENGINEER R. Simmons DATE OF REVIEW 12-17-02	☐ PDR
	☐ FDR

SUBJECT: (CHECK AS APPLICABLE)

☐ REQUIREMENTS   ☐ HARDWARE   ☐ SAFETY
☐ ANALYSIS   ☐ CONFIGURATION   ☐ COST/SCHEDULE
☐ PERFORMANCE   ☐ RELIABILITY / MAINTAINABILITY   ☐ QUALITY

COMMENT/CONCERN/RECOMMENDATION

There should be a level of change where an ECP is not required. Level 4 ECP now covers
"all other" implying any change will require an ECP. Is this what is desired?

ORIGINATOR ___F. Malinowski___

NAME/ORGANIZATION   QA

REVIEW BOARD COMMENT/RECOMMENDATION
(Address technical, cost, and schedule impacts as appropriate. If CHIT is not adopted, provide technical reaso
do not simply state "out-of-scope or N/A" without explaining.)

Clarify & modify CMP accordingly. This is related to Chit #2 (J. Schmidt).

X CONCUR
0 DISAGREE
0 OTHER   CHAIRPERSON F. Malinowski _____ DATE: 12/18/02

COGNIZANT DESIGN ENGINEER'S RESPONSE/DISPOSITION:

- Decision made to not set threshold below which an ECP is not required. Flexibility
  currently exists for WBS Manager to initiate change if not technical, cost, or schedu
  impact after ensuring no impact on other WBS elements.

SIGNATURE R. Simmons _____ DATE: 12-18-02

RESPONSIBLE RLM REVIEW

X APPROVE COG DISPOSITION
0 DISAPPROVE COG DISPOSITION   SIGNATURE W. Reiersen DATE: 2/25/03

COGNIZANT DESIGN ENGINEER CLOSE-OUT
Sign when action required by disposition is complete.

SIGNATURE R. Simmons DATE: 2/25/03

PPPL DESIGN REVIEW CHIT

WP # _____ (ENG-032)

CHIT # ___8___

COMPONENT/SUBSYSTEM/SYSTEM NCSX CM Plan & Procedure 002

COGNIZANT DESIGN ENGINEER R. Simmons_____ DATE OF REVIEW 12-17-02_____

☒ PEER
☐ CDR
☐ PDR
☐ FDR

SUBJECT: (CHECK AS APPLICABLE)

☐ REQUIREMENTS   ☐ HARDWARE   ☐ SAFETY
☐ ANALYSIS   ☐ CONFIGURATION   ☐ COST/SCHEDULE
☐ PERFORMANCE   ☐ RELIABILITY/MAINTAINABILITY   ☐ QUALITY

COMMENT/CONCERN/RECOMMENDATION

How will user identify documents that form the current technical baseline? Perhaps a poste
list? How will user identify intermediate (i.e., between design reviews) baselines establishe
by an ECP?

ORIGINATOR ___Malinowski___
NAME/ORGANIZATION   QA

REVIEW BOARD COMMENT/RECOMMENDATION
(Address technical, cost, and schedule impacts as appropriate. If CHIT is not adopted, provide technical reaso
do not simply state "out-of-scope or N/A" without explaining.)

1. Dwgs. have areas posted in Pro/INTRALINK.
2. Other tech docs will be in special folders on Engrg. Web.
3. NCSX needs to clarify dsn pt baselines & current baseline (by ECPs) and identify areas in Pro/INTRALINK & Eng. Web to clearly identify baselines.

X CONCUR
0 DISAGREE
0 OTHER   CHAIRPERSON F. Malinowski_____ DATE: 12/18/02_

COGNIZANT DESIGN ENGINEER'S RESPONSE/DISPOSITION:

- Drawings and models forming current technical baseline are identified as part of tha baseline and baseline has unique name and identified (e.g., CDR Baseline_0502) i Pro/INTRALINK => CMP revised to clarify technical baseline identification in Pro/INTRALINK.
- Other documents forming the technical baseline will have special unique folders on the Engineering Web page.

SIGNATURE R. Simmons_____ DATE: 12-18-02_

RESPONSIBLE RLM REVIEW

X APPROVE COG DISPOSITION
0 DISAPPROVE COG DISPOSITION   SIGNATURE W. Reiersen_ DATE: 2/25/03_

COGNIZANT DESIGN ENGINEER CLOSE-OUT
Sign when action required by disposition is complete.

SIGNATURE R. Simmons_ DATE: 2/25/03_

PPPL DESIGN REVIEW CHIT

WP # _____ (ENG-032)

CHIT # ___9___

COMPONENT/SUBSYSTEM/SYSTEM <u>NCSX CM Plan & Procedure 002</u>	☒ PEER ☐ CDR ☐ PDR ☐ FDR
COGNIZANT DESIGN ENGINEER <u>R. Simmons</u> DATE OF REVIEW <u>12-17-02</u>	

SUBJECT: (CHECK AS APPLICABLE)

☐ REQUIREMENTS   ☐ HARDWARE   ☐ SAFETY
☐ ANALYSIS   ☐ CONFIGURATION   ☐ COST/SCHEDULE
☐ PERFORMANCE   ☐ RELIABILITY/MAINTAINABILITY   ☐ QUALITY

COMMENT/CONCERN/RECOMMENDATION

Add "all WBS Mgrs" to the ECP notification. Allow any WBS Mgr. To submit ECP comments/concerns on ECP Part II.

ORIGINATOR ___F. Malinowski___

NAME/ORGANIZATION   QA

REVIEW BOARD COMMENT/RECOMMENDATION
(Address technical, cost, and schedule impacts as appropriate. If CHIT is not adopted, provide technical reas o
do not simply state "out-of-scope or N/A" without explaining.)

Will modify CMP & Proc. 002 to do this.

X CONCUR
0 DISAGREE
0 OTHER   CHAIRPERSON F. Malinowski___   DATE: 12/18/02

COGNIZANT DESIGN ENGINEER'S RESPONSE/DISPOSITION:

- CMP and NCSX Procedure 002 modified accordingly.

SIGNATURE R. Simmons___   DATE: 12-18-02

RESPONSIBLE RLM REVIEW

X APPROVE COG DISPOSITION
0 DISAPPROVE COG DISPOSITION   SIGNATURE W. Reiersen DATE: 2/25/03

COGNIZANT DESIGN ENGINEER CLOSE-OUT
Sign when action required by disposition is complete.

SIGNATURE R. Simmons DATE: 2/25/03

PPPL DESIGN REVIEW CHIT

WP # _____ (ENG-032)

CHIT # ___10___

COMPONENT/SUBSYSTEM/SYSTEM NCSX CM Plan & Procedure 002	☒ PEER
	☐ CDR
COGNIZANT DESIGN ENGINEER R. Simmons DATE OF REVIEW 12-17-02	☐ PDR
	☐ FDR

SUBJECT: (CHECK AS APPLICABLE)

☐ REQUIREMENTS   ☐ HARDWARE   ☐ SAFETY
☐ ANALYSIS   ☐ CONFIGURATION   ☐ COST/SCHEDULE
☐ PERFORMANCE   ☐ RELIABILITY/MAINTAINABILITY   ☐ QUALITY

COMMENT/CONCERN/RECOMMENDATION

Consider removing GRD from list of items subject to the NCSX Federal Project Manager approval. GRD tends to be technical in nature – value added by elevating to NCSX Federal project Manager approval is questionable.

ORIGINATOR ___C. Neumeyer___

NAME/ORGANIZATION

REVIEW BOARD COMMENT/RECOMMENDATION
(Address technical, cost, and schedule impacts as appropriate. If CHIT is not adopted, provide technical reaso do not simply state "out-of-scope or N/A" without explaining.)

GRD is approved by NCSX PM <u>not</u> Pitonak. Will need to revise PEP, SEMP, CMP to refle this.

X CONCUR
0 DISAGREE
0 OTHER   CHAIRPERSON F. Malinowski   DATE: 12/18/02

COGNIZANT DESIGN ENGINEER'S RESPONSE/DISPOSITION:

- Have resolved this issue with Federal Project Manager – G. Pitonak agrees that the NCSX Project Manager will approve GRD. PEP will be revised in next few months eliminate the confusion. SEMP & CMP already revised.

SIGNATURE R. Simmons   DATE: 12-18-02

RESPONSIBLE RLM REVIEW

X APPROVE COG DISPOSITION
0 DISAPPROVE COG DISPOSITION | SIGNATURE W. Reiersen   DATE: 2/25/03

COGNIZANT DESIGN ENGINEER CLOSE-OUT
Sign when action required by disposition is complete.

SIGNATURE R. Simmons DATE: 2/25/03

PPPL DESIGN REVIEW CHIT

COMPONENT/SUBSYSTEM/SYSTEM NCSX CM Plan & Procedure 002 COGNIZANT DESIGN ENGINEER R. Simmons DATE OF REVIEW 12-17-02	☒ PEER ☐ CDR ☐ PDR ☐ FDR

SUBJECT: (CHECK AS APPLICABLE)

☐ REQUIREMENTS ☐ HARDWARE ☐ SAFETY
☐ ANALYSIS ☐ CONFIGURATION ☐ COST/SCHEDULE
☐ PERFORMANCE ☐ RELIABILITY/MAINTAINABILITY ☐ QUALITY

COMMENT/CONCERN/RECOMMENDATION

System (probably CMP) must address control of space allocation on the NCSX model.

ORIGINATOR ___L. Dudek___

NAME/ORGANIZATION

REVIEW BOARD COMMENT/RECOMMENDATION
(Address technical, cost, and schedule impacts as appropriate. If CHIT is not adopted, provide technical reaso
do not simply state "out-of-scope or N/A" without explaining.)

L. Dudek to propose an approach.

X CONCUR
0 DISAGREE
0 OTHER CHAIRPERSON F. Malinowski DATE: 12/18/02

COGNIZANT DESIGN ENGINEER'S RESPONSE/DISPOSITION:

- T. Brown has clarified that Pro/INTRALINK database does reflect component envelopes on model when component is identified.

SIGNATURE R. Simmons DATE: 12-18-02

RESPONSIBLE RLM REVIEW

X APPROVE COG DISPOSITION
0 DISAPPROVE COG DISPOSITION SIGNATURE W. Reiersen DATE: 2/25/03

COGNIZANT DESIGN ENGINEER CLOSE-OUT
Sign when action required by disposition is complete.

SIGNATURE R. Simmons DATE: 2/25/03