

All documents numbers start with a 9

9 - - -  
| | |

| | Document per chart

| Generation (i.e. PSS has 1,2&3, FEEPS has 1&2) Use **0** when the document

**doesn't apply to any of these**

System

- 0- Non system Specific (group wide)
- 1- PSS
- 2- Reserved for PSS expansion
- 3- FEEPS
- 4- Reserved for FEEPS expansion
- 5- BLEPS
- 6- Reserved for BLEPS expansion
- 7- DIW
- 8- Reserved for future use
- 9- Reserved for future use

## **000-099 Requirements**

000 – Statement of work

For x.1.4.1.4 – Design Statement of Work

For Beamlines – Installation Statement of Work

001-009 Reserved for Statement of Works for upgrade, revisions, add-ons, etc.

010 – Cost Estimate

011-019 Additional Cost Estimates

020 System Requirement Specifications

021 Hardware Requirement Specifications

022 Software Requirement Specifications

023 Users Requirement Specifications

024 PLC Software Coding Guidelines

030 System I/O List

031 1<sup>st</sup> subsystem's I/O List (Chain A)

032 2<sup>nd</sup> subsystem's I/O List (Chain B)

033 3<sup>rd</sup> subsystem's I/O List (Chain C)

040 System Fault List

041 1<sup>st</sup> subsystem's Fault List (Chain A)

042 2<sup>nd</sup> subsystem's Fault List (Chain B)

043 3<sup>rd</sup> subsystem's Fault List (Chain C)

050 System Interface Control Document

For 91x

051 PSS to ACIS ICD

052 PSS to FEEPS ICD

053 PSS to BLEPS ICD

054 PSS to FE Shutter ICD

055 PSS to Integral Shutter ICD

056 PSS to DIW ICD

057 PSS to Remote Shutter Interface ICD/HMI

058 PSS to User controls ICD/EPICS

For 93x

051 FEEPS to PSS ICD

052 FEEPS to BLEPS ICD

053 FEEPS to VAT controller ICD

054 FEEPS to MPS chassis ICD

For 95x

051 BLEPS to PSS ICD

052 BLEPS to FEEPS ICD

## **100-199 Design**

100 – Functional Description

110 – Standard Beamline Configurations

120 – Software Design Specifications

121 – 1<sup>st</sup> subsystem's Software Design Specifications (Chain A)

122 – 2<sup>nd</sup> subsystem's Software Design Specifications (Chain B)

123 – 3<sup>rd</sup> subsystem's Software Design Specifications (Chain C)

124 – 4<sup>th</sup> subsystem's Software Design Specifications (HMI)

125 – Software Design Guideline

130 Software Source Code

131 1<sup>st</sup> subsystem's Software Source Code (Chain A)

132 2<sup>nd</sup> subsystem's Software Source Code (Chain B)

133 3<sup>rd</sup> subsystem's Software Source Code (Chain C)

134 4<sup>th</sup> subsystem's Software Source Code (HMI)

135 Software Source Code ESD-A pdf version

136 Software Source Code ESD-B pdf version

137 Software Source Code Chain-C pdf version

140 Code Review Walk Through

141 1<sup>st</sup> subsystem's Code Review Walk Through (Chain A)

142 2<sup>nd</sup> subsystem's Code Review Walk Through (Chain B)

143 3<sup>rd</sup> subsystem's Code Review Walk Through (Chain C)

144 4<sup>th</sup> subsystem's Code Review Walk Through (HMI)

150 Hardware Design Specifications

160 Software Version Control

170 – System Software Change Request (SCR)

171 – 1<sup>st</sup> subsystem's Software Change Request (Chain A)

172 – 2<sup>nd</sup> subsystem's Software Change Request (Chain B)

173 – 3<sup>rd</sup> subsystem's Software Change Request (Chain C)

174 – 4<sup>th</sup> subsystem's Software Change Request (HMI)

180- Commissioning Plan

181- Bill of Materials

182 – Beamline Readiness Checklist

## **200-299 Validations Procedures**

200 – Initial System Test

210 – System I/O Validation

211 1<sup>st</sup> subsystem's I/O Validation (Chain A)

212 2<sup>nd</sup> subsystem's I/O Validation (Chain B)

213 3<sup>rd</sup> subsystem's I/O Validation (Chain C)

220 – Beamline Functional Validation/(Verification) Procedure

221 – 1<sup>st</sup> Subsystem's Functional Validation/Verification (Chain A Validation)

222 – 2<sup>nd</sup> Subsystem's Functional Validation/Verification (Chain B Validation)

223 – 3<sup>rd</sup> Subsystem's Functional Validation/Verification (C&C Verification)

229 – 30-ID Gen-3 PSS System Commissioning Plan

## **230 System Interface Validation**

For 91x

231 PSS to ACIS Interface Validation

232 PSS to FEEPS Interface Validation

233 PSS to BLEPS Interface Validation

234 PSS to FE Shutter Interface Validation

235 PSS to Integral Shutter Interface Validation

236 PSS to DIW Interface Validation

237 PSS to Remote Shutter Interface Validation

238 PSS to User Controls Interface Validation

## **240 Chain C/HMI Functional Change Checkout Procedure**

## **250 End-to-End Test**

## **260 I/O Commissioning**

261 1<sup>st</sup> subsystem's I/O Commissioning Chain A

262 2<sup>nd</sup> subsystem's I/O Commissioning Chain B

263 3<sup>rd</sup> subsystem's I/O Commissioning Chain C

264 Gen-1 PSS Acceptance Test

## **300-399 Test Procedures**

300 Front End Shutter Acceptance Checkout Procedure for Generations 1 & 2 PSS

301 PSS- ACIS Trip Test

302 PSS-DIW Quick Test

303 PSS FE Shutter Simulator Test Procedure

## **400-499 Repair Procedures**

400 One-for-One parts replacement

420 PSS Jumper Installation and Removal Procedure

430 Work Request Procedure and Forms  
440 PSS Shutter Calibration

**500-599 User Docs**

User Manual  
Floor Manager Training  
User/Operator Training  
Search and Secure Procedures  
Administrative Control Procedures  
Fault Resetting Procedure

600- Misc.

Create W.B.S. 99 for Lab Beamline Simulator  
98 for Lab Prototype System  
97 for Test Cart System