BROOKHAVEN NATIONAL LABORATORY

INSPECTION/TEST RECORD
Light Sources Directorate

SHEET_ OF_

DEPARTMENT/DIVISION/PROJECT NPB Project Beamlines/SST-2 Beamlin

QA CLASSIFICATION: ☐ A1 (CRITICAL/HIGH) ☐ A2 (MAJOR/MODERATE) ☐ A3 (MINOR/LOW) ☐ A4 (NEGLIGIBLE)

PART NAME:	SST Beamline Shielding Assembly, Shielding Beam Pipe		
PART NO.:	PD-SST-BL-SHLD-0600	REV.:	A
PREPARED BY:	Conan Weiland	DATE:	
VENDOR:	BNL	P.O. NO.:	N/A
QTY. RECD.:	1	DATE RECD.:	

COMMENTS:

☐ Inspection/Test Data Attached (Data Sheet To Include: Part Name, Part No., Date, & Sheet _____of_____)

ITEM	CHARACTERISTIC/REQUIREMENT	INSP. / REJ.	INSPECTOR'S SIGNATURE/LIFE #	DATE
1	Verify component assembly complies with drawing see NC #N-00110	1 / 0	Conan Weiland Q64498	04/09/18
2	Verify Installed shield dimensions comply with tech note 275	1 / 0	Conan Weiland Q64498	04/09/18
3	Verify sheilded pipe is located as per radiation component alignment drawing PD-SST-BL-LAY-1050	1 / 0	Conan Weiland Q64498	04/09/18
4	Verify bolting is tight to provent shield rotation	1 / 0	Conan Weiland Q64498	04/09/18
5		/		
6		/		
7		/		
8		/		
9		/		

Record all nonconformances for each item on page 2 of ITR.

Qty. Accepted _____ Serial (LOT) No. Accepted _____

Nonconformance # N-00110 Created by Zipper, Joseph on Apr 9, 2018 3:45 PM

Initiation | Disposition Recommendation | Quality Representative Concurrence | Final Disposition | Access Control | **All Tab**

Initiation

NC Number
N-00110

Created by
Zipper, Joseph

Created on
Apr 10, 2018

GENERAL INFORMATION

Source of Nonconformance
Equipment

Mode of Discovery
Final Inspection

Receipt Type
BNL Production

Discovered by
Weiland, Conan

Phone Extension

Discovery Date
Apr 9, 2018 3:45 PM

Affected Department
Photon Sciences Department

Dept Quality Representative
NSLS II QReps

Owner
Weiland, Conan

Owner's Phone

Owner's Department
Photon Sciences Department

Type of Nonconformance
Out of Spec/Tolerance

General Item Description
SST Beamline Shielding Assy

Description of Nonconformance
The installed shield dimension in Z is out of spec by +.10 inches

Quantity Delivered
1

Quantity with NC
1

ITEM INFORMATION

General Item Information

Supplier Name
BNL

Supplier Name 2

Requisitioner

Item Type / Category

Vendor Item ID

Lot # / Serial #

Supplier Part #

BNL Part #
PD-SST-BL-SHLD-0600

Manufacturer

Rev Level

Attachments

PROJECT INFORMATION

Select a Project
SSTBMM

WBS Number
7.02.01

WBS Description
SST 1&2 Management

WBS Project Manager
Broadbent, Andrew

PM Phone Extension
631/344-7103

PM E-mail Address
broadbent@bnl.gov

Level 2 Cost Account Manager
Zhong, Zhong

CAM Phone Extension
631/344-2117

CAM E-mail Address
zhong@bnl.gov

Traveler #

Traveler Rev

Traveler Operation #

Disposition Recommendation

DISPOSITION RECOMMENDATION INFO

Disposition Recommended By
Weiland, Conan

Recommendation Date
Apr 10, 2018

Disposition Type Section

Disposition Type
Use As Is (UAI)

Quantity
1

Justification
Use as is: shield dimension is larger than required, and is compliant with recommendations in NSLS-II Tech Note 275.

Attachment(s)

Total Quantity with NC
1

Responsible for Nonconformance
○ BNL ○ Supplier

Significance of Defect

Is CAPA Required?
○ Yes
○ No

Is SCAR Required?
○ Yes
○ No

Comments

Quality Representative Concurrence

QUALITY REPRESENTATIVE INFO

Please review the information contained in the sections labeled "Initiation", and "Disposition Recommendation" by clicking on the tabs above. Return to this tab to record your concurrence.

Concurrence

- (●) Concur
- ( ) Recommend Adjustments

Comments

Final Disposition

FINAL DISPOSITION INFO

CAPA Link

SCAR Link

☑ Close Nonconformance

Date Closed
Apr 10, 2018

Comments

Attachment(s)

Access Control

Phase Tracking

Assigned To	Phase	Submitted Date	Due Date	Completed Date	Due Date Extension/Reassignment Link
Zipper, Joseph	Initiation	Apr 9, 2018	Apr 16, 2018	Apr 9, 2018	
Weiland, Conan	Disposition Recommendation	Apr 9, 2018	Apr 16, 2018	Apr 9, 2018	
Cheswick, Edward Zipper, Joseph	Quality Representative Concurrence	Apr 9, 2018	Apr 16, 2018	Apr 9, 2018	
Chitra, Sunil	Additional Approvals	Apr 9, 2018	Apr 16, 2018	Apr 10, 2018	
Weiland, Conan	Final Disposition	Apr 10, 2018	Apr 17, 2018	Apr 10, 2018	
	Closed	Apr 10, 2018		Apr 10, 2018	

Additional Document Security

Managers **Editors** **Readers**

Last Edited by Weiland, Conan on Apr 10, 2018 8:53 AM

BRS2 (mm)	x-coord.	y-coord.	z-coord.
BRS2 US TOP INB	-67.400	60.000	35666.600
BRS2 US TOP OUTB	210.600	60.000	35666.600
BRS2 US BOT OUTB	210.600	-60.000	35666.600
BRS2 US BOT INB	-67.400	-60.000	35666.600
BRS2 DS TOP INB	-67.400	60.000	35866.600
BRS2 DS TOP OUTB	210.600	60.000	35866.600
BRS2 DS BOT OUTB	210.600	-60.000	35866.600
BRS2 DS BOT INB	-67.400	-60.000	35866.600

BRS2 (mm)	x-coord.	x-deviation	minus x-tol.	plus x-tol.	y-coord.	y-deviation	minus y-tol.	plus y-tol.	z-coord.	z-deviation	z-tol. (+/-)	
BRS2 US TOP INB	-69.509	-2.109	0.000	0.640	59.919	-0.081	0.410	0.000	35666.442	-0.158	5.000	x-tolerances not achievable (DR or ECO)
BRS2 US TOP OUTB	210.492	-0.108	1.440	0.000	59.971	-0.029	0.410	0.000	35666.459	-0.141	5.000	y is close enough
BRS2 US BOT OUTB	210.801	0.201	1.440	0.000	-60.029	-0.029	0.000	0.410	35666.521	-0.079	5.000	
BRS2 US BOT INB	-69.200	-1.800	0.000	0.640	-60.081	-0.081	0.000	0.410	35666.505	-0.095	5.000	
BRS2 DS TOP INB	-69.423	-2.023	0.000	0.640	59.990	-0.010	0.410	0.000	35866.442	-0.158	5.000	
BRS2 DS TOP OUTB	210.578	-0.022	1.440	0.000	60.042	0.042	0.410	0.000	35866.459	-0.141	5.000	
BRS2 DS BOT OUTB	210.888	0.288	1.440	0.000	-59.958	0.042	0.000	0.410	35866.521	-0.079	5.000	
BRS2 DS BOT INB	-69.113	-1.713	0.000	0.640	-60.010	-0.010	0.000	0.410	35866.505	-0.095	5.000	

PSH1 (mm)	x-coord.	y-coord.	z-coord.
PSH1 US TOP INB	-120.510	12.500	36326.714
PSH1 US TOP OUTB	-80.510	12.500	36326.622
PSH1 US BOT OUTB	-80.510	-12.500	36326.622
PSH1 US BOT INB	-120.510	-12.500	36326.714
PSH1 DS TOP INB	-120.146	12.500	36483.614
PSH1 DS TOP OUTB	-80.146	12.500	36483.521
PSH1 DS BOT OUTB	-80.146	-12.500	36483.521
PSH1 DS BOT INB	-120.146	-12.500	36483.614

PSH1 (mm)	x-coord.	x-deviation	x-tol. (+/-)	y-coord.	y-deviation	y-tol. (+/-)	z-coord.	z-deviation	z-tol. (+/-)
PSH1 US TOP INB	-120.872	-0.362	2.000	12.542	0.042	2.000	36322.689	-4.025	5.000
PSH1 US TOP OUTB	-80.835	-0.325	2.000	12.524	0.024	2.000	36322.592	-4.030	5.000
PSH1 US BOT OUTB	-80.851	-0.341	2.000	-12.513	-0.013	2.000	36322.577	-4.045	5.000
PSH1 US BOT INB	-120.884	-0.374	2.000	-12.480	0.020	2.000	36322.673	-4.041	5.000
PSH1 DS TOP INB	-120.731	-0.585	2.000	12.645	0.145	2.000	36479.812	-3.802	5.000
PSH1 DS TOP OUTB	-80.669	-0.523	2.000	12.628	0.128	2.000	36479.687	-3.834	5.000
PSH1 DS BOT OUTB	-80.684	-0.538	2.000	-12.414	0.086	2.000	36479.779	-3.742	5.000
PSH1 DS BOT INB	-120.744	-0.598	2.000	-12.382	0.118	2.000	36479.904	-3.710	5.000

SBT-L (mm)	x-coord.	y-coord.	z-coord.
SBT-L US TOP	-98.997	58.750	36978.212
SBT-L US BOT	-98.997	-58.850	36978.212
SBT-L US OUTB	-40.197	-0.050	36978.212
SBT-L US INB	-157.798	-0.050	36978.212
SBT-L DS TOP	-86.237	58.750	42476.563
SBT-L DS BOT	-86.237	-58.850	42476.563
SBT-L DS OUTB	-27.437	-0.050	42476.426
SBT-L DS INB	-145.037	-0.050	42476.699

SBT-L (mm)	x-coord.	x-deviation	x-tol. (+/-)	y-coord.	y-deviation	y-tol. (+/-)	z-coord.	z-deviation	z-tol. (+/-)	
SBT-L US TOP	-99.132	-0.135	2.000	59.612	0.862	2.000	36978.211	-0.001	5.000	All good.
SBT-L US BOT	-99.132	-0.135	2.000	-57.784	1.066	2.000	36978.211	-0.001	5.000	
SBT-L US OUTB	-40.434	-0.237	2.000	0.914	0.964	2.000	36978.211	-0.001	5.000	
SBT-L US INB	-157.83	-0.032	2.000	0.914	0.964	2.000	36978.211	-0.001	5.000	
SBT-L DS TOP	-85.661	0.576	2.000	59.547	0.797	2.000	42473.596	-2.967	5.000	
SBT-L DS BOT	-85.661	0.576	2.000	-57.849	1.001	2.000	42473.587	-2.976	5.000	
SBT-L DS OUTB	-26.963	0.474	2.000	0.849	0.899	2.000	42473.587	-2.839	5.000	
SBT-L DS INB	-144.358	0.679	2.000	0.849	0.899	2.000	42473.732	-2.967	5.000	

FM3 (mm)	x-coord.	y-coord.	z-coord.
FM3 DS TOP INB	-82.129	4.240	45970.413
FM3 DS TOP OUTB	-74.129	4.240	45970.394
FM3 DS BOT OUTB	-74.129	-11.760	45970.394
FM3 DS BOT INB	-82.129	-11.760	45970.413

FM3 (mm)	x-coord.	x-deviation	minus x-tol.	plus x-tol.	y-coord.	y-deviation	minus y-tol.	plus y-tol.	z-coord.	z-deviation	z-tol. (+/-)	
FM3 DS TOP INB	-82.201	-0.072	0.320	0.000	4.199	-0.041	0.000	0.120	45970.299	-0.114	5.000	DR
FM3 DS TOP OUTB	-74.114	0.015	0.000	0.320	4.188	-0.052	0.000	0.120	45970.265	-0.129	5.000	
FM3 DS BOT OUTB	-74.111	0.018	0.000	0.320	-11.830	-0.070	0.120	0.000	45970.274	-0.120	5.000	
FM3 DS BOT INB	-82.178	-0.049	0.320	0.000	-11.840	-0.080	0.120	0.000	45970.307	-0.106	5.000	

L PBS (mm)	x-coord.	y-coord.	z-coord.
L PBS DS INB	-106.600	7.500	47706.349
L PBS DS OUTB	-41.600	7.500	47706.198
L PBS US OUTB	-41.667	-21.500	47677.198
L PBS US INB	-106.667	-21.500	47677.349

L PBS (mm)	x-coord.	x-deviation	minus x-tol.	plus x-tol.	y-coord.	y-deviation	minus y-tol.	plus y-tol.	z-coord.	z-deviation	z-tol. (+/-)	
L PBS DS INB	-106.476	0.124	0.320	0.000	8.302	0.802	0.000	0.320	47704.322	-2.027	5.000	Good y-number, more beam clearance
L PBS DS OUTB	-41.347	0.253	0.000	0.320	8.36	0.860	0.000	0.320	47703.79	-2.408	5.000	Good y-number, more beam clearance
L PBS US OUTB	-41.518	0.149	0.000	0.320	-21.537	-0.037	0.320	0.000	47675.65	-1.548	5.000	
L PBS US INB	-106.708	-0.041	0.320	0.000	-21.594	-0.094	0.320	0.000	47676.183	-1.166	5.000	

PSH2 (mm)	x-coord.	y-coord.	z-coord.
PSH2 US TOP INB	-84.992	27.500	51630.814
PSH2 US TOP OUTB	-44.992	27.500	51630.721
PSH2 US BOT OUTB	-44.992	2.500	51630.721
PSH2 US BOT INB	-84.992	2.500	51630.814
PSH2 DS TOP INB	-84.628	27.500	51787.714
PSH2 DS TOP OUTB	-44.628	27.500	51787.621
PSH2 DS BOT OUTB	-44.628	2.500	51787.621
PSH2 DS BOT INB	-84.628	2.500	51787.714

PSH2 (mm)	x-coord.	x-deviation	x-tol. (+/-)	y-coord.	y-deviation	y-tol. (+/-)	z-coord.	z-deviation	z-tol. (+/-)
PSH2 US TOP INB	-85.080	-0.088	2.000	27.604	0.104	2.000	51631.060	0.246	5.000
PSH2 US TOP OUTB	-44.878	0.114	2.000	27.609	0.109	2.000	51631.228	0.507	5.000
PSH2 US BOT OUTB	-44.906	0.086	2.000	2.346	-0.154	2.000	51631.208	0.487	5.000
PSH2 US BOT INB	-85.078	-0.086	2.000	2.350	-0.150	2.000	51631.041	0.227	5.000
PSH2 DS TOP INB	-84.805	-0.177	2.000	27.623	0.123	2.000	51787.740	0.026	5.000
PSH2 DS TOP OUTB	-44.517	0.111	2.000	27.627	0.127	2.000	51787.884	0.263	5.000
PSH2 DS BOT OUTB	-44.545	0.083	2.000	2.373	-0.127	2.000	51787.929	0.308	5.000
PSH2 DS BOT INB	-84.804	-0.176	2.000	2.378	-0.122	2.000	51787.785	0.071	5.000

PSH3 (mm)	x-coord.	y-coord.	z-coord.
PSH3 US TOP INB	-30.859	27.500	63500.831
PSH3 US TOP OUTB	9.129	27.500	63499.883
PSH3 US BOT OUTB	9.129	2.500	63499.883
PSH3 US BOT INB	-30.859	2.500	63500.831
PSH3 DS TOP INB	-27.139	27.500	63657.687
PSH3 DS TOP OUTB	12.850	27.500	63656.738
PSH3 DS BOT OUTB	12.850	2.500	63656.738
PSH3 DS BOT INB	-27.139	2.500	63657.687

PSH3 (mm)	x-coord.	x-deviation	x-tol. (+/-)	y-coord.	y-deviation	y-tol. (+/-)	z-coord.	z-deviation	z-tol. (+/-)
PSH3 US TOP INB	-31.022	-0.163	2.000	27.538	0.038	2.000	63501.401	0.570	5.000
PSH3 US TOP OUTB	9.201	0.072	2.000	27.540	0.040	2.000	63500.491	0.608	5.000
PSH3 US BOT OUTB	9.196	0.067	2.000	2.309	-0.191	2.000	63500.486	0.603	5.000
PSH3 US BOT INB	-31.029	-0.170	2.000	2.326	-0.174	2.000	63501.396	0.565	5.000
PSH3 DS TOP INB	-27.206	-0.067	2.000	27.518	0.018	2.000	63657.963	0.276	5.000
PSH3 DS TOP OUTB	12.997	0.147	2.000	27.520	0.020	2.000	63657.090	0.352	5.000
PSH3 DS BOT OUTB	12.993	0.143	2.000	2.253	-0.247	2.000	63657.131	0.393	5.000
PSH3 DS BOT INB	-27.212	-0.073	2.000	2.270	-0.230	2.000	63658.003	0.316	5.000

M-BRANCH COMPONENTS

Beamline coordinate Data (mm)

FM4 (mm)	x-coord.	y-coord.	z-coord.
FM4 BOT INB	136.381	-10.000	31909.009
FM4 TOP INB	136.381	10.000	31909.009
FM4 TOP OUTB	156.355	10.000	31907.982
FM4 BOT OUTB	156.355	-10.000	31907.982

FS6 (mm)	x-coord.	y-coord.	z-coord.
FS6 US TOP INB	345.128	5.500	35924.904
FS6 US BOT INB	345.128	-5.500	35924.904
FS6 MIS APER TOP	358.259	5.500	35941.513
FS6 MIS APER BOT	358.259	-5.500	35941.513

PSH4 (mm)	x-coord.	y-coord.	z-coord.
PSH4 US TOP INB	351.930	12.500	36327.612
PSH4 US TOP OUTB	391.877	12.500	36325.559
PSH4 US BOT OUTB	391.877	-12.500	36325.559
PSH4 US BOT INB	351.930	-12.500	36327.612
PSH4 DS TOP INB	359.985	12.500	36484.305
PSH4 DS TOP OUTB	399.932	12.500	36482.252
PSH4 DS BOT OUTB	399.932	-12.500	36482.252
PSH4 DS BOT INB	359.985	-12.500	36484.305

SBT-M (mm)	x-coord.	y-coord.	z-coord.
SBT-M US TOP	405.281	58.800	36975.884
SBT-M US BOT	405.281	-58.800	36975.884
SBT-M US OUTB	464.159	0.000	36975.881
SBT-M US INB	346.404	0.000	36975.887
SBT-M DS TOP	548.506	58.800	39762.074
SBT-M DS BOT	548.506	-58.800	39762.074
SBT-M DS OUTB	607.228	0.000	39759.056
SBT-M DS INB	489.783	0.000	39765.093

Final Survey Data (mm) (with tolerances & deviation)

FM4 (mm)	x-coord.	x-deviation	minus x-tol.	plus x-tol.	y-coord.	y-deviation	minus y-tol.	plus y-tol.	z-coord.	z-deviation	z-tol. (+/-)	
FM4 BOT INB	136.342	-0.039	0.320	0.000	-10.003	-0.003	0.320	0.000	31909.007	-0.002	5.000	Close enough
FM4 TOP INB	136.359	-0.022	0.320	0.000	9.995	-0.005	0.000	0.320	31909.004	-0.005	5.000	
FM4 TOP OUTB	156.381	0.026	0.000	0.320	9.995	-0.005	0.000	0.320	31907.974	-0.008	5.000	
FM4 BOT OUTB	156.375	0.020	0.000	0.320	-10.000	0.000	0.320	0.000	31907.977	-0.005	5.000	

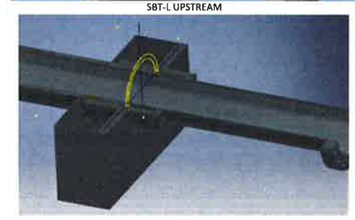
FS6 (mm)	x-coord.	x-deviation	minus x-tol.	plus x-tol.	y-coord.	y-deviation	minus y-tol.	plus y-tol.	z-coord.	z-deviation	z-tol. (+/-)	
FS6 US TOP INB	345.041	-0.087	0.320	0.000	5.547	0.047	0.000	0.320	35925.052	0.148	5.000	Close enough, DR?
FS6 US BOT INB	345.022	-0.106	0.320	0.000	-5.568	-0.068	0.320	0.000	35924.969	0.065	5.000	
FS6 MIS APER TOP	358.289	0.030	0.320	0.000	5.509	0.009	0.000	0.320	35941.424	-0.089	5.000	
FS6 MIS APER BOT	358.266	0.007	0.320	0.000	-5.534	-0.034	0.320	0.000	35941.418	-0.095	5.000	

PSH4 (mm)	x-coord.	x-deviation	x-tol. (+/-)	y-coord.	y-deviation	y-tol. (+/-)	z-coord.	z-deviation	z-tol. (+/-)
PSH4 US TOP INB	351.689	-0.241	2.000	12.678	0.178	2.000	36332.426	4.814	5.000
PSH4 US TOP OUTB	391.865	-0.012	2.000	12.684	0.184	2.000	36330.215	4.656	5.000
PSH4 US BOT OUTB	391.851	-0.026	2.000	-12.586	-0.086	2.000	36330.180	4.621	5.000
PSH4 US BOT INB	351.682	-0.248	2.000	-12.579	-0.079	2.000	36332.391	4.779	5.000
PSH4 DS TOP INB	360.193	0.208	2.000	12.573	0.073	2.000	36488.938	4.633	5.000
PSH4 DS TOP OUTB	400.390	0.458	2.000	12.578	0.078	2.000	36486.881	4.629	5.000
PSH4 DS BOT OUTB	400.380	0.448	2.000	-12.679	-0.179	2.000	36486.930	4.678	5.000
PSH4 DS BOT INB	360.191	0.206	2.000	-12.672	-0.172	2.000	36488.986	4.681	5.000

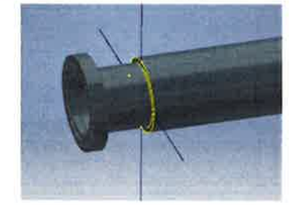
SBT-M (mm)	x-coord.	x-deviation	x-tol. (+/-)	y-coord.	y-deviation	y-tol. (+/-)	z-coord.	z-deviation	z-tol. (+/-)	
SBT-M US TOP	405.139	-0.142	2.000	58.355	-0.445	2.000	36975.884	0.000	5.000	All good.
SBT-M US BOT	405.139	-0.142	2.000	-59.073	-0.273	2.000	36975.884	0.000	5.000	
SBT-M US OUTB	463.853	-0.306	2.000	-0.359	-0.359	2.000	36975.882	0.001	5.000	
SBT-M US INB	346.425	0.021	2.000	-0.359	-0.359	2.000	36975.887	0.000	5.000	
SBT-M DS TOP	548.741	0.235	2.000	58.392	-0.408	2.000	39762.062	-0.012	5.000	
SBT-M DS BOT	548.741	0.235	2.000	-59.036	-0.236	2.000	39762.063	-0.011	5.000	
SBT-M DS OUTB	607.377	0.149	2.000	-0.322	-0.322	2.000	39759.04	-0.016	5.000	
SBT-M DS INB	490.104	0.321	2.000	-0.322	-0.322	2.000	39765.084	-0.009	5.000	

BRS2

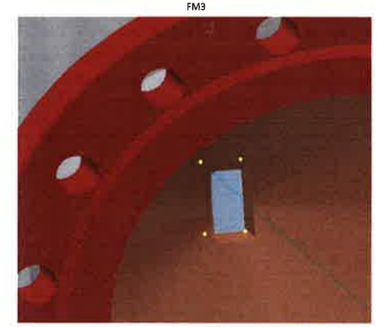
SBT-L UPSTREAM



SBT-L DOWNSTREAM

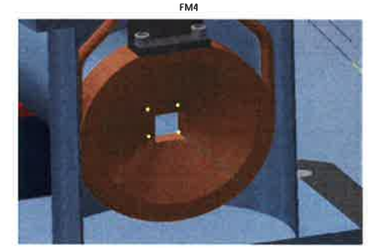


FM3



L-PBS

FM4



FS6

SBT-M UPSTREAM

SBT-M DOWNSTREAM