

Brookhaven National Laboratory/ Photon Sciences			
Subject:	NSLS-II Storage Ring Pentant 3 Radiation Safety Component Checklist		
Number:	PS-R-ESH-KSR-005	Revision:	13
		Effective:	8/25/2017
Prepared by:	L. Doom		
			Page: 1 of 6

Except for the Mekometer Port (checkpoint 3701), all configurations must match the associated photograph located near the checkpoint.

Inside Storage Ring Pentant 3

Check 3001 through 3026 in Cell 5:

- 3001. Utility Penetration shielding at 4 ID in place and labeled
- 3002. Flange absorber #1 at 4BM in place and labeled
- 3003. Reserved for Future Use
- 3004. Vacuum flange and blank off at Cell 5 between Girder 2 and 3 in place and labeled
- 3005. Dipole chamber mounting brackets at Cell 5 Girder 3 in place and labeled
- 3006. Vacuum Absorber at Cell 5 between Girder 3 and 4 in place and labeled
- 3007. Flange absorber #2 at 4BM in place and labeled
- 3008. Front end Collimator #2 shielding at 4BM in place and labeled
- 3009. Safety Shutter #1 shielding at 4BM in place and labeled
- 3010. Safety Shutter #2 shielding at 4BM in place and labeled
- 3011. Ratchet Wall Collimator shielding at 4BM in place and labeled
- 3012. Dipole Shadow shield at Cell 5 Girder 4 in place, banded and labeled
- 3013. Utility Penetration shielding at 4 BM in place and labeled
- 3014. Reserved for Future Use
- 3015. Reserved for Future Use
- 3016. Reserved for Future Use
- 3017. Reserved for Future Use
- 3018. Front End Fixed Aperture Mask at 5ID in place and labeled
- 3019. Front End Burn Through Device #1 at 5ID in place and labeled
- 3020. Front End Collimator #1 shielding at 5ID in place and labeled
- 3021. Dipole Shadow shield at Cell 5 Girder 6 in place, banded and labeled
- 3022. Front End Burn Through Device #2 at 5ID in place and labeled
- 3023. Front End Collimator #2 shielding at 5ID in place and labeled
- 3024. Safety Shutter #1 shielding at 5ID in place and labeled
- 3025. Safety Shutter #2 shielding at 5ID in place and labeled
- 3026. Ratchet Wall Collimator shielding at 5ID in place and labeled (this verifies Burn Through Device #3 in ratchet wall is present)

Check 3101 through 3113 in Cell 6:

- 3101. Utility Penetration shielding at 5 ID in place and labeled

Subject:

NSLS-II Storage Ring Pentant 3 Radiation Safety Component Checklist

Number:

PS-R-ESH-KSR-005

Revision:

13

Effective:

8/25/2017Page: **2 of 6**Prepared by: **L. Doom**

3102. Dipole Shadow shield at Cell 6 Girder 4 in place, banded and labeled
3103. Ratchet Wall Plug (Front end) shielding at 5 BM in place and labeled
3104. Utility Penetration shielding at 5 BM in place and labeled
3105. Vacuum flange and blank off at 6BM Cell 6 Girder 4 in place and labeled
3106. Reserved for future use
3107. Exit Absorber at 6BM Cell 6 Girder 6 in place and labeled
3108. Dipole Shadow shield at Cell 6 Girder 6 in place, banded and labeled
3109. Ratchet Wall Plug (Front end) shielding at 6 ID in place and labeled
3110. Fixed mask #1 at 6BM in place and labeled
3111. Lead Collimator #1 shielding at 6BM in place and labeled
3112. Fixed mask #2 at 6BM in place and labeled
3113. Shadow shield at 6BM in place and labeled

Check 3201 through 3230 in Cell 7:

3201. Utility Penetration shielding at 6 ID in place and labeled
3202. Vacuum flange and blank off at 7ID Cell 7 between Girder 2 and 3 in place and labeled
3203. Dipole chamber mounting brackets at 7ID Cell 7 Girder 3 in place and labeled
3204. Vacuum Absorber at 7ID Cell 7 between Girder 3 and 4 in place and labeled
3205. Reserved for Future Use
3206. Fixed mask #3 at 6BM in place and labeled
3207. Fixed mask #4 at 6BM in place and labeled
3208. Lead Collimator #2 shielding at 6BM in place and labeled
3209. Safety Shutter #1 shielding at 6BM in place and labeled
3210. Safety Shutter #2 shielding at 6BM in place and labeled
3211. Ratchet Wall Collimator shielding at 6BM in place and labeled
3212. Dipole Shadow shield at Cell 7 Girder 4 in place, banded and labeled
3213. Utility Penetration a shielding at 6 BM in place and labeled
3214. Reserved for future use
3215. Vacuum flange and blank off at 7BM Cell 7 Girder 4 in place and labeled
3216. Exit Absorber at 7BM Cell 7 Girder 6 in place and labeled
3217. Fixed mask at 7ID in place and labeled
3218. Front End Burn Through Device #1 at 7ID in place and labeled
3219. Front End Collimator #1 shielding at 7ID in place and labeled
3220. Dipole Shadow shield at Cell 7 Girder 6 in place, banded and labeled
3221. Front End Burn Through Device #2 at 7ID in place and labeled

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		Effective:	8/25/2017
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			Page: 3 of 6

- 3222. Front End Collimator #2 shielding at 7ID in place and labeled
- 3223. Safety Shutter #1 shielding at 7ID in place and labeled
- 3224. Safety Shutter #2 shielding at 7ID in place and labeled
- 3225. Ratchet Wall Collimator shielding at 7ID in place and labeled
- 3226. Fixed mask #1 at 7BM in place and labeled
- 3227. Front End Collimator #1 shielding at 7BM in place and labeled
- 3228. Fixed mask #2 at 7BM in place and labeled
- 3229. Shadow shield at 7BM in place and labeled
- 3230. Fixed mask #3 at 7BM in place and labeled

Check 3301 through 3324 in Cell 8:

- 3301. Utility Penetration shielding at 7 ID in place and labeled
- 3302. Vacuum flange and blank off at Cell 8 between Girder 2 and 3 in place and labeled
- 3303. Dipole chamber mounting brackets at Cell 8 Girder 3 in place and labeled
- 3304. Vacuum Absorber at Cell 8 between Girder 3 and 4 in place and labeled
- 3305. Dipole Shadow shield at Cell 8 Girder 4 in place, banded and labeled
- 3306. Fixed mask #4 at 7BM in place and labeled
- 3307. Front End Collimator #2 shielding at 7BM in place and labeled
- 3308. Safety Shutter #1 shielding at 7BM in place and labeled
- 3309. Safety Shutter #2 shielding at 7BM in place and labeled
- 3310. Ratchet Wall Collimator shielding at 7BM in place and labeled
- 3311. Utility Penetration a shielding at 7 BM in place and labeled
- 3312. Dipole Shadow shield at Cell 8 Girder 6 in place, banded and labeled
- 3313. Front End Fixed Aperture Mask at 8ID in place and labeled
- 3314. Front End Burn through Device #1 at 8ID in place and labeled
- 3315. Front End Collimator #1 shielding at 8ID in place and labeled
- 3316. Reserved for future use.
- 3317. Front End Collimator #2 shielding at 8ID in place and labeled
- 3318. Safety Shutter #1 shielding at 8ID in place and labeled
- 3319. Safety Shutter #2 shielding at 8ID in place and labeled
- 3320. Ratchet Wall Collimator shielding at 8ID in place and labeled (this verifies Burn Through Device #2 in ratchet wall is present)
- 3321. Reserved for future use.
- 3322. Fixed mask #1 at 8BM in place and labeled
- 3323. Fixed mask #2 at 8BM in place and labeled

Subject:	NSLS-II Storage Ring Pentant 3 Radiation Safety Component Checklist		
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		Effective:	8/25/2017
Prepared by:	L. Doom		
			Page: 4 of 6

3324. Lead Collimator #1 at 8BM in place and labeled

Check 3401 through 3412 in Cell 9:

3401. Utility Penetration shielding at 8 ID in place and labeled
3402. Fixed mask #3 at 8BM in place and labeled
3403. Lead Collimator #2 at 8BM in place and labeled
3404. Fixed mask #4 at 8BM in place and labeled
3405. Lead Collimator #3 at 8BM in place and labeled
3406. Safety Shutter #1 shielding at 8BM in place and labeled
3407. Safety Shutter #2 shielding at 8BM in place and labeled
3408. Ratchet Wall Collimator shielding at 8BM in place and labeled
3409. Dipole Shadow shield at Cell 9 Girder 4 in place, banded and labeled
3410. Utility Penetration shielding at 8 BM in place and labeled
3411. Dipole Shadow shield at Cell 9 Girder 6 in place, banded and labeled
3412. Ratchet Wall Plug (Front end) shielding at 9 ID in place and labeled

Check 3501 through 3516 in Cell 10:

3501. Utility Penetration shielding at 9 ID in place and labeled
3502. Vacuum flange and blank off at Cell 10 between Girder 2 and 3 in place and labeled
3503. Dipole chamber mounting brackets at Cell 10 Girder 3 in place and labeled
3504. Vacuum Absorber at Cell 10 between Girder 3 and 4 in place and labeled
3505. Dipole Shadow shield at Cell 10 Girder 4 in place, banded and labeled
3506. Ratchet Wall Plug (Front end) shielding at 9 BM in place and labeled
3507. Utility Penetration shielding at 9 BM in place and labeled
3508. Dipole Shadow shield at Cell 10 Girder 6 in place, banded and labeled
3509. Front End Fixed Aperture Mask at 10ID in place and labeled
3510. Front End Burn Through Device #1 at 10ID in place and labeled
3511. Front End Collimator #1 shielding at 10ID in place and labeled
3512. Reserved for future use.
3513. Front End Collimator #2 shielding at 10ID in place and labeled
3514. Safety Shutter #1 shielding at 10ID in place and labeled
3515. Safety Shutter #2 shielding at 10ID in place and labeled
3516. Ratchet Wall Collimator shielding at 10ID in place and labeled (this verifies Burn Through Device #2 in ratchet wall is present)

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			Page: 5 of 6

Outside Storage Ring Tunnel Pentant 3

Check 3601 through 3630 along the storage ring outer wall

- 3601. Utility Penetration shielding at 4 ID in place and labeled
- 3602. Fixed concrete blocks (2) at 4 BM in place and labeled
- 3603. Ratchet Wall Collimator shielding at 4BM in place, banded and labeled inside hatch.
- 3604. Utility Penetration shielding at 4 BM in place and labeled
- 3605. Ratchet Wall Collimator shielding at 5ID in place, banded and labeled (inside hatch) (this also ensures Burn through Device #3 in ratchet wall is present)
- 3606. Utility Penetration shielding at 5 ID in place and labeled (inside hatch)
- 3607. Fixed concrete blocks (2) at 5 BM in place and labeled (inside hatch)
- 3608. Ratchet Wall Plug (Front end) shielding at 5 BM in place, banded and labeled
- 3609. Utility Penetration shielding at 5 BM in place and labeled
- 3610. Ratchet Wall Plug (Front end) shielding at 6 ID in place, banded and labeled (inside hatch)
- 3611. Utility Penetration shielding at 6 ID in place and labeled
- 3612. Fixed concrete blocks (2) at 6 BM in place and labeled
- 3613. Ratchet Wall Collimator shielding at 6BM in place, banded and labeled inside hatch.
- 3614. Utility Penetration shielding at 6 BM in place and labeled
- 3615. Ratchet Wall Collimator shielding at 7ID in place, banded and labeled inside hatch.
- 3616. Utility Penetration shielding at 7 ID in place and labeled
- 3617. Fixed concrete blocks (4) at 7 BM in place and labeled
- 3618. Ratchet Wall Collimator shielding at 7BM in place, banded and labeled inside hatch.
- 3619. Utility Penetration shielding at 7 BM in place and labeled
- 3620. Ratchet Wall Collimator shielding at 8ID in place, banded and labeled (inside hatch) (this also ensures Burn through Device #2 in ratchet wall is present)
- 3621. Utility Penetration shielding at 8 ID in place and labeled
- 3622. Fixed concrete blocks (2) at 8 BM in place and labeled
- 3623. Ratchet Wall Collimator shielding at 8 BM in place, banded and labeled (inside hatch)
- 3624. Utility Penetration shielding at 8 BM in place and labeled
- 3625. Ratchet Wall Plug (Front end) shielding at 9 ID in place, banded and labeled
- 3626. Utility Penetration shielding at 9 ID in place and labeled
- 3627. Fixed concrete blocks (2) at 9 BM in place and labeled
- 3628. Ratchet Wall Plug (Front end) shielding at 9 BM in place, banded and labeled
- 3629. Utility Penetration shielding at 9 BM in place and labeled
- 3630. Ratchet Wall Collimator shielding at 10ID in place banded, and labeled (this verifies Burn Through Device #2 in ratchet wall is present)

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			Page: 6 of 6

Check 3701 on the Storage Ring Mezzanine at Cell 9

3701. Mekometer port cover plate labeled and shielding padlocked (below cover plate)

Check 3801 in Service Building 3:

3801. Fixed concrete blocks (8) in place and labeled

Prepared by:

8/25/2017

Approved by:

8/28/2017

X Lewis Doom

 Lewis Doom
 Storage Ring Engineer
 Signed by: Doom, Lewis

X Sushil Sharma

 Sushil Sharma
 Technical Authority
 Signed by: Sharma, Sushil

Inspected by

Print Name _____ Signature: _____ Date: _____

********Removal of any shielding or opening of any locks listed on this checklist requires posting an approved NSLS-II Safety System Work Permit ********