

CEBAF radiation surveys 2023-2020 (arcs)
2024-2017 (BSY)

Compiled by Jay Benesch and Jerone Samari

Summary

- East arc gets clobbered more than West.
- Not surprising since keeping beta function under control in higher passes in the NL is tough due to inadequate focusing.
- Shown in reverse time order.
- No 2024 surveys show activation in either arc.
- Lambertson, 1C12 and 3C12 most prominent in BSY

SL 9/5/23 8uA tune beam VBV3A19

Location SOUTH LINAC	Accelerator Operating Conditions <i>8uAmp, Tune Beam</i>	Instrument: <u>LUDLUM 79</u> Serial #: <u>25018459</u> Calibration Due: <u>9/10/23</u>	Survey Number N/A	RWP 2023-SCD2
Reason for Survey: <u>INITIAL ENTRY</u>				

LEGEND

All readings in mR/hr whole body (unless annotated otherwise)

--- Denotes posted area

Denotes smear location (refer to page 2 for results)

— Contact dose rate

— Whole Body dose rate

— Item description

□ Denotes area not surveyed

Approved Abbreviations
RA - Radiation Area
HRA - High Radiation Area
CA - Contamination Area

For Beam Enclosure Entry Surveys

☒ Full survey, all areas posted

☐ Partial survey with continuous surveillance

☐ Partial survey with exclusion zone(s) posted

Comments:

Performed By (Print): <i>Melissa Schack / Aldaisia Donald</i>	Date: <i>9/5/23</i>	Crew Chief Review (Print): <i>[Signature]</i>	Date: <i>Sept 5</i>	RCD Review (Print):	Date:
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SL 9/6/23 ~60 uA CW beam VBV3A19

Location SOUTH LINAC	Accelerator Operating Conditions ~60 uA + Hc/45 uA to Hc/4 uA to Hc	Instrument: <u>Ludlum 79</u> Serial #: <u>25018480</u> Calibration Due: <u>6/1/23</u>	Survey Number NA	RWP 2023-S002
Reason for Survey: <u>Initial Entry</u>				
LEGEND All readings in mR/hr whole body (unless annotated otherwise) - - - Denotes posted area # Denotes smear location (refer to page 2 for results) — Contact dose rate — Whole Body dose rate — Item description □ Denotes area not surveyed				
Approved Abbreviations RA - Radiation Area HRA - High Radiation Area CA - Contamination Area				
For Beam Enclosure Entry Surveys ☒ Full survey, all areas posted ☐ Partial survey with continuous surveillance ☐ Partial survey with exclusion zone(s) posted Comments:				
Performed By (Print): Melissa Schake / Aldaisia Donald		Date: 3/6/23		Crew Chief Review (Print): LT. CARLIN
		Date: 3/6/2023		RCD Review (Print): DAVID HALETT
Date				

SL 2/6/23 85 uA CW

Location SOUTH LINAC	Accelerator Operating Conditions 45 uA, 4 pass Hall A 40 uA, 5 pass Hall C	Instrument: LVA Lum 78 Serial #: 322329 Calibration Due: 6/11/23	Survey Number NA	RWP 2023-5002
Reason for Survey: Initial Entry				
LEGEND All readings in mR/hr whole body (unless annotated otherwise) --- Denotes posted area # Denotes smear location (refer to page 2 for results) Contact dose rate Whole Body dose rate Item description Denotes area not surveyed Approved Abbreviations RA - Radiation Area HRA - High Radiation Area CA - Contamination Area For Beam Enclosure Entry Surveys ☒ Full survey, all areas posted ☐ Partial survey with continuous surveillance ☐ Partial survey with exclusion zone(s) posted Comments: * denotes dose rate beneath equipment				
Performed By (Print): Stephen Kanne / Dave Humblett	Date: 2/16/23	Crew Chief Review (Print): K. J. Carls	Date: 2/16/2023	RCD Review (Print):
				Date

NL 2/6/23 85 uA CS

Location NORTH LINAC	Accelerator Operating Conditions 4 pass Hall A 45 Amp, Spars Hall C 40 Amp	Instrument: <u>LUDLUM 78</u> Serial #: <u>25764640</u> Calibration Due: <u>7/25/23</u>	Survey Number <u>N/A</u>	RWP <u>2023-5002</u>
Reason for Survey: <u>INITIAL ENTRY</u>				

LEGEND

All readings in mR/hr whole body (unless annotated otherwise)

--- Denotes posted area

⊙ Denotes smear location (refer to page 2 for results)

☐ Contact dose rate
☐ Whole Body dose rate
☐ Item description

▨ Denotes area not surveyed

Approved Abbreviations
RA - Radiation Area
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CA - Contamination Area

NL 2/1/23 45 uA CW

Location NORTH LINAC	Accelerator Operating Conditions 45uA, Spass	Instrument: Ludlum 78 Serial #: 257666 Calibration Due: 7/25/23	Survey Number NA	RWP 2023-5002
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Reason for Survey: Initial Entry

LEGEND

All readings in mR/hr whole body (unless annotated otherwise)

--- Denotes posted area

Ⓢ Denotes smear location (refer to page 2 for results)

— Contact dose rate
 — Whole Body dose rate
 — Item description

□ Denotes area not surveyed

Approved Abbreviations
 RA - Radiation Area
 HRA - High Radiation Area
 CA - Contamination Area

For Beam Enclosure Entry Surveys	
☒	Full survey, all areas posted
☐	Partial survey with continuous surveillance
☐	Partial survey with exclusion zone(s) posted
Comments:	

SL 2/1/23 45 uA CW

Location SOUTH LINAC	Accelerator Operating Conditions 45 uAmp 5 pass	Instrument: <u>LUDLUM 10</u> Serial #: <u>327829</u> Calibration Due: <u>6/1/23</u>	Survey number: NA 2023-S002
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Reason for Survey: INITIAL ENTRY

LEGEND
 All readings in mR/hr whole body (unless annotated otherwise)

--- Denotes posted area

Ⓢ Denotes smear location (refer to page 2 for results)

☐ Contact dose rate
☐ Whole Body dose rate
☐ Item description

☒ Denotes area not surveyed

Approved Abbreviations
 RA - Radiation Area
 HRA - High Radiation Area
 CA - Contamination Area

For Beam Enclosure Entry Surveys

☒ Full survey, all areas posted

☐ Partial survey with continuous surveillance

☐ Partial survey with exclusion zone(s) posted

Comments:

Performed By (Print): Zach Milanti / Alysia Donah	Date: 2/1/23	Crew Chief Review (Print): Chris Humphrey	Date: 02/01/2023	RCD Review (Print): [Signature]	Date: [Blank]
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SL 1/20/23 60 uA CW

Location SOUTH LINAC	Accelerator Operating Conditions ~ 60 uA TO HC/5 PASS	Instrument: LUDLUM 78 Serial #: 322320 Calibration Due: 5/2/23	Survey Number N/A	RWP
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Reason for Survey: **TROUBLESHOOT 2L08 INSULATING VACUUM**

LEGEND
All readings in mR/hr whole body (unless annotated otherwise)
--- Denotes posted area
Denotes smear location (refer to page 2 for results)
Contact dose rate
Whole Body dose rate
Item description
Denotes area not surveyed

Approved Abbreviations
RA - Radiation Area
HRA - High Radiation Area
CA - Contamination Area

For Beam Enclosure Entry Surveys
☒ Full survey, all areas posted
☐ Partial survey with continuous surveillance
☐ Partial survey with exclusion zone(s) posted
 Comments:
***LEAK @ BEAM DIAPHRAGM FILTER**

Diagram: A schematic diagram of the South Linac beam enclosure. It shows a complex arrangement of rooms and corridors. Key areas labeled include 'East Arc Gate', 'Exit Stair #3', 'Exit Stair #4', 'Exit Stair #5', 'Exit Stair #6', 'South Access', 'BSY Gate', and 'West Arc Gate'. Numerous radiation readings are noted throughout the facility, such as <0.1, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0, 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 2.0, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 3.0, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 4.0, 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 4.9, 5.0, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9, 6.0, 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 7.0, 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8, 7.9, 8.0, 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 8.8, 8.9, 9.0, 9.1, 9.2, 9.3, 9.4, 9.5, 9.6, 9.7, 9.8, 9.9, 10.0, 10.1, 10.2, 10.3, 10.4, 10.5, 10.6, 10.7, 10.8, 10.9, 11.0, 11.1, 11.2, 11.3, 11.4, 11.5, 11.6, 11.7, 11.8, 11.9, 12.0, 12.1, 12.2, 12.3, 12.4, 12.5, 12.6, 12.7, 12.8, 12.9, 13.0, 13.1, 13.2, 13.3, 13.4, 13.5, 13.6, 13.7, 13.8, 13.9, 14.0, 14.1, 14.2, 14.3, 14.4, 14.5, 14.6, 14.7, 14.8, 14.9, 15.0, 15.1, 15.2, 15.3, 15.4, 15.5, 15.6, 15.7, 15.8, 15.9, 16.0, 16.1, 16.2, 16.3, 16.4, 16.5, 16.6, 16.7, 16.8, 16.9, 17.0, 17.1, 17.2, 17.3, 17.4, 17.5, 17.6, 17.7, 17.8, 17.9, 18.0, 18.1, 18.2, 18.3, 18.4, 18.5, 18.6, 18.7, 18.8, 18.9, 19.0, 19.1, 19.2, 19.3, 19.4, 19.5, 19.6, 19.7, 19.8, 19.9, 20.0, 20.1, 20.2, 20.3, 20.4, 20.5, 20.6, 20.7, 20.8, 20.9, 21.0, 21.1, 21.2, 21.3, 21.4, 21.5, 21.6, 21.7, 21.8, 21.9, 22.0, 22.1, 22.2, 22.3, 22.4, 22.5, 22.6, 22.7, 22.8, 22.9, 23.0, 23.1, 23.2, 23.3, 23.4, 23.5, 23.6, 23.7, 23.8, 23.9, 24.0, 24.1, 24.2, 24.3, 24.4, 24.5, 24.6, 24.7, 24.8, 24.9, 25.0, 25.1, 25.2, 25.3, 25.4, 25.5, 25.6, 25.7, 25.8, 25.9, 26.0, 26.1, 26.2, 26.3, 26.4, 26.5, 26.6, 26.7, 26.8, 26.9, 27.0, 27.1, 27.2, 27.3, 27.4, 27.5, 27.6, 27.7, 27.8, 27.9, 28.0, 28.1, 28.2, 28.3, 28.4, 28.5, 28.6, 28.7, 28.8, 28.9, 29.0, 29.1, 29.2, 29.3, 29.4, 29.5, 29.6, 29.7, 29.8, 29.9, 30.0, 30.1, 30.2, 30.3, 30.4, 30.5, 30.6, 30.7, 30.8, 30.9, 31.0, 31.1, 31.2, 31.3, 31.4, 31.5, 31.6, 31.7, 31.8, 31.9, 32.0, 32.1, 32.2, 32.3, 32.4, 32.5, 32.6, 32.7, 32.8, 32.9, 33.0, 33.1, 33.2, 33.3, 33.4, 33.5, 33.6, 33.7, 33.8, 33.9, 34.0, 34.1, 34.2, 34.3, 34.4, 34.5, 34.6, 34.7, 34.8, 34.9, 35.0, 35.1, 35.2, 35.3, 35.4, 35.5, 35.6, 35.7, 35.8, 35.9, 36.0, 36.1, 36.2, 36.3, 36.4, 36.5, 36.6, 36.7, 36.8, 36.9, 37.0, 37.1, 37.2, 37.3, 37.4, 37.5, 37.6, 37.7, 37.8, 37.9, 38.0, 38.1, 38.2, 38.3, 38.4, 38.5, 38.6, 38.7, 38.8, 38.9, 39.0, 39.1, 39.2, 39.3, 39.4, 39.5, 39.6, 39.7, 39.8, 39.9, 40.0, 40.1, 40.2, 40.3, 40.4, 40.5, 40.6, 40.7, 40.8, 40.9, 41.0, 41.1, 41.2, 41.3, 41.4, 41.5, 41.6, 41.7, 41.8, 41.9, 42.0, 42.1, 42.2, 42.3, 42.4, 42.5, 42.6, 42.7, 42.8, 42.9, 43.0, 43.1, 43.2, 43.3, 43.4, 43.5, 43.6, 43.7, 43.8, 43.9, 44.0, 44.1, 44.2, 44.3, 44.4, 44.5, 44.6, 44.7, 44.8, 44.9, 45.0, 45.1, 45.2, 45.3, 45.4, 45.5, 45.6, 45.7, 45.8, 45.9, 46.0, 46.1, 46.2, 46.3, 46.4, 46.5, 46.6, 46.7, 46.8, 46.9, 47.0, 47.1, 47.2, 47.3, 47.4, 47.5, 47.6, 47.7, 47.8, 47.9, 48.0, 48.1, 48.2, 48.3, 48.4, 48.5, 48.6, 48.7, 48.8, 48.9, 49.0, 49.1, 49.2, 49.3, 49.4, 49.5, 49.6, 49.7, 49.8, 49.9, 50.0, 50.1, 50.2, 50.3, 50.4, 50.5, 50.6, 50.7, 50.8, 50.9, 51.0, 51.1, 51.2, 51.3, 51.4, 51.5, 51.6, 51.7, 51.8, 51.9, 52.0, 52.1, 52.2, 52.3, 52.4, 52.5, 52.6, 52.7, 52.8, 52.9, 53.0, 53.1, 53.2, 53.3, 53.4, 53.5, 53.6, 53.7, 53.8, 53.9, 54.0, 54.1, 54.2, 54.3, 54.4, 54.5, 54.6, 54.7, 54.8, 54.9, 55.0, 55.1, 55.2, 55.3, 55.4, 55.5, 55.6, 55.7, 55.8, 55.9, 56.0, 56.1, 56.2, 56.3, 56.4, 56.5, 56.6, 56.7, 56.8, 56.9, 57.0, 57.1, 57.2, 57.3, 57.4, 57.5, 57.6, 57.7, 57.8, 57.9, 58.0, 58.1, 58.2, 58.3, 58.4, 58.5, 58.6, 58.7, 58.8, 58.9, 59.0, 59.1, 59.2, 59.3, 59.4, 59.5, 59.6, 59.7, 59.8, 59.9, 60.0, 60.1, 60.2, 60.3, 60.4, 60.5, 60.6, 60.7, 60.8, 60.9, 61.0, 61.1, 61.2, 61.3, 61.4, 61.5, 61.6, 61.7, 61.8, 61.9, 62.0, 62.1, 62.2, 62.3, 62.4, 62.5, 62.6, 62.7, 62.8, 62.9, 63.0, 63.1, 63.2, 63.3, 63.4, 63.5, 63.6, 63.7, 63.8, 63.9, 64.0, 64.1, 64.2, 64.3, 64.4, 64.5, 64.6, 64.7, 64.8, 64.9, 65.0, 65.1, 65.2, 65.3, 65.4, 65.5, 65.6, 65.7, 65.8, 65.9, 66.0, 66.1, 66.2, 66.3, 66.4, 66.5, 66.6, 66.7, 66.8, 66.9, 67.0, 67.1, 67.2, 67.3, 67.4, 67.5, 67.6, 67.7, 67.8, 67.9, 68.0, 68.1, 68.2, 68.3, 68.4, 68.5, 68.6, 68.7, 68.8, 68.9, 69.0, 69.1, 69.2, 69.3, 69.4, 69.5, 69.6, 69.7, 69.8, 69.9, 70.0, 70.1, 70.2, 70.3, 70.4, 70.5, 70.6, 70.7, 70.8, 70.9, 71.0, 71.1, 71.2, 71.3, 71.4, 71.5, 71.6, 71.7, 71.8, 71.9, 72.0, 72.1, 72.2, 72.3, 72.4, 72.5, 72.6, 72.7, 72.8, 72.9, 73.0, 73.1, 73.2, 73.3, 73.4, 73.5, 73.6, 73.7, 73.8, 73.9, 74.0, 74.1, 74.2, 74.3, 74.4, 74.5, 74.6, 74.7, 74.8, 74.9, 75.0, 75.1, 75.2, 75.3, 75.4, 75.5, 75.6, 75.7, 75.8, 75.9, 76.0, 76.1, 76.2, 76.3, 76.4, 76.5, 76.6, 76.7, 76.8, 76.9, 77.0, 77.1, 77.2, 77.3, 77.4, 77.5, 77.6, 77.7, 77.8, 77.9, 78.0, 78.1, 78.2, 78.3, 78.4, 78.5, 78.6, 78.7, 78.8, 78.9, 79.0, 79.1, 79.2, 79.3, 79.4, 79.5, 79.6, 79.7, 79.8, 79.9, 80.0, 80.1, 80.2, 80.3, 80.4, 80.5, 80.6, 80.7, 80.8, 80.9, 81.0, 81.1, 81.2, 81.3, 81.4, 81.5, 81.6, 81.7, 81.8, 81.9, 82.0, 82.1, 82.2, 82.3, 82.4, 82.5, 82.6, 82.7, 82.8, 82.9, 83.0, 83.1, 83.2, 83.3, 83.4, 83.5, 83.6, 83.7, 83.8, 83.9, 84.0, 84.1, 84.2, 84.3, 84.4, 84.5, 84.6, 84.7, 84.8, 84.9, 85.0, 85.1, 85.2, 85.3, 85.4, 85.5, 85.6, 85.7, 85.8, 85.9, 86.0, 86.1, 86.2, 86.3, 86.4, 86.5, 86.6, 86.7, 86.8, 86.9, 87.0, 87.1, 87.2, 87.3, 87.4, 87.5, 87.6, 87.7, 87.8, 87.9, 88.0, 88.1, 88.2, 88.3, 88.4, 88.5, 88.6, 88.7, 88.8, 88.9, 89.0, 89.1, 89.2, 89.3, 89.4, 89.5, 89.6, 89.7, 89.8, 89.9, 90.0, 90.1, 90.2, 90.3, 90.4, 90.5, 90.6, 90.7, 90.8, 90.9, 91.0, 91.1, 91.2, 91.3, 91.4, 91.5, 91.6, 91.7, 91.8, 91.9, 92.0, 92.1, 92.2, 92.3, 92.4, 92.5, 92.6, 92.7, 92.8, 92.9, 93.0, 93.1, 93.2, 93.3, 93.4, 93.5, 93.6, 93.7, 93.8, 93.9, 94.0, 94.1, 94.2, 94.3, 94.4, 94.5, 94.6, 94.7, 94.8, 94.9, 95.0, 95.1, 95.2, 95.3, 95.4, 95.5, 95.6, 95.7, 95.8, 95.9, 96.0, 96.1, 96.2, 96.3, 96.4, 96.5, 96.6, 96.7, 96.8, 96.9, 97.0, 97.1, 97.2, 97.3, 97.4, 97.5, 97.6, 97.7, 97.8, 97.9, 98.0, 98.1, 98.2, 98.3, 98.4, 98.5, 98.6, 98.7, 98.8, 98.9, 99.0, 99.1, 99.2, 99.3, 99.4, 99.5, 99.6, 99.7, 99.8, 99.9, 100.0, 100.1, 100.2, 100.3, 100.4, 100.5, 100.6, 100.7, 100.8, 100.9, 101.0, 101.1, 101.2, 101.3, 101.4, 101.5, 101.6, 101.7, 101.8, 101.9, 102.0, 102.1, 102.2, 102.3, 102.4, 102.5, 102.6, 102.7, 102.8, 102.9, 103.0, 103.1, 103.2, 103.3, 103.4, 103.5, 103.6, 103.7, 103.8, 103.9, 104.0, 104.1, 104.2, 104.3, 104.4, 104.5, 104.6, 104.7, 104.8, 104.9, 105.0, 105.1, 105.2, 105.3, 105.4, 105.5, 105.6, 105.7, 105.8, 105.9, 106.0, 106.1, 106.2, 106.3, 106.4, 106.5, 106.6, 106.7, 106.8, 106.9, 107.0, 107.1, 107.2, 107.3, 107.4, 107.5, 107.6, 107.7, 107.8, 107.9, 108.0, 108.1, 108.2, 108.3, 108.4, 108.5, 108.6, 108.7, 108.8, 108.9, 109.0, 109.1, 109.2, 109.3, 109.4, 109.5, 109.6, 109.7, 109.8, 109.9, 110.0, 110.1, 110.2, 110.3, 110.4, 110.5, 110.6, 110.7, 110.8, 110.9, 111.0, 111.1, 111.2, 111.3, 111.4, 111.5, 111.6, 111.7, 111.8, 111.9, 112.0, 112.1, 112.2, 112.3, 112.4, 112.5, 112.6, 112.7, 112.8, 112.9, 113.0, 113.1, 113.2, 113.3, 113.4, 113.5, 113.6, 113.7, 113.8, 113.9, 114.0, 114.1, 114.2, 114.3, 114.4, 114.5, 114.6, 114.7, 114.8, 114.9, 115.0, 115.1, 115.2, 115.3, 115.4, 115.5, 115.6, 115.7, 115.8, 115.9, 116.0, 116.1, 116.2, 116.3, 116.4, 116.5, 116.6, 116.7, 116.8, 116.9, 117.0, 117.1, 117.2, 117.3, 117.4, 117.5, 117.6, 117.7, 117.8, 117.9, 118.0, 118.1, 118.2, 118.3, 118.4, 118.5, 118.6, 118.7, 118.8, 118.9, 119.0, 119.1, 119.2, 119.3, 119.4, 119.5, 119.6, 119.7, 119.8, 119.9, 120.0, 120.1, 120.2, 120.3, 120.4, 120.5, 120.6, 120.7, 120.8, 120.9, 121.0, 121.1, 121.2, 121.3, 121.4, 121.5, 121.6, 121.7, 121.8, 121.9, 122.0, 122.1, 122.2, 122.3, 122.4, 122.5, 122.6, 122.7, 122.8, 122.9, 123.0, 123.1, 123.2, 123.3, 123.4, 123.5, 123.6, 123.7, 123.8, 123.9, 124.0, 124.1, 124.2, 124.3, 124.4, 124.5, 124.6, 124.7, 124.8, 124.9, 125.0, 125.1, 125.2, 125.3, 125.4, 125.5, 125.6, 125.7, 125.8, 125.9, 126.0, 126.1, 126.2, 126.3, 126.4, 126.5, 126.6, 126.7, 126.8, 126.9, 127.0, 127.1, 127.2, 127.3, 127.4, 127.5, 127.6, 127.7, 127.8, 127.9, 128.0, 128.1, 128.2, 128.3, 128.4, 128.5, 128.6, 128.7, 128.8, 128.9, 129.0, 129.1, 129.2, 129.3, 129.4, 129.5, 129.6, 129.7, 129.8, 129.9, 130.0, 130.1, 130.2, 130.3, 130.4, 130.5, 130.6, 130.7, 130.8, 130.9, 131.0, 131.1, 131.2, 131.3, 131.4, 131.5, 131.6, 131.7, 131.8, 131.9, 132.0, 132.1, 132.2, 132.3, 132.4, 132.5, 132.6, 132.7, 132.8, 132.9, 133.0, 133.1, 133.2, 133.3, 133.4, 133.5, 133.6, 133.7, 133.8, 133.9, 134.0, 134.1, 134.2, 134.3, 134.4, 134.5, 134.6, 134.7, 134.8, 134.9, 135.0, 135.1, 135.2, 135.3, 135.4, 135.5, 135.6, 135.7, 135.8, 135.9, 136.0, 136.1, 136.2, 136.3, 136.4, 136.5, 136.6, 136.7, 136.8, 136.9, 137.0, 137.1, 137.2, 137.3, 137.4, 137.5, 137.6, 137.7, 137.8, 137.9, 138.0, 138.1, 138.2, 138.3, 138.4, 138.5, 138.6, 138.7, 138.8, 138.9, 139.0, 139.1, 139.2, 139.3, 139.4, 139.5, 139.6, 139.7, 139.8, 139.9, 140.0, 140.1, 140.2, 140.3, 140.4, 140.5, 140.6, 140.7, 140.8, 140.9, 141.0, 141.1, 141.2, 141.3, 141.4, 141.5, 141.6, 141.7, 141.8, 141.9, 142.0, 142.1, 142.2, 142.3, 142.4, 142.5, 142.6, 142.7, 142.8, 142.9, 143.0, 143.1, 143.2, 143.3, 143.4, 143.5, 143.6, 143.7, 143.8, 143.9, 144.0, 144.1, 144.2, 144.3, 144.4, 144.5, 144.6, 144.7, 144.8, 144.9, 145.0, 145.1, 145.2, 145.3, 145.4, 145.5, 145.6, 145.7, 145.8, 145.9, 146.0, 146.1, 146.2, 146.3, 146.4, 146.5, 146.6, 146.7, 146.8, 146.9, 147.0, 147.1, 147.2, 147.3, 147.4, 147.5, 147.6, 147.7, 147.8, 147.9, 148.0, 148.1, 148.2, 148.3, 148.4, 148.5, 148.6, 148.7, 148.8, 148.9, 149.0, 149.1, 149.2, 149.3, 149.4, 149.5, 149.6, 149.7, 149.8, 149.9, 150.0, 150.1, 150.2, 150.3, 150.4, 150.5, 150.6, 150.7, 150.8, 150.9, 151.0, 151.1, 151.2, 151.3, 151.4, 151.5, 151.6, 151.7, 151.8, 151.9, 152.0, 152.1, 152.2, 152.3, 152.4, 152.5, 152.6, 152.7, 152.8, 152.9, 153.0, 153.1, 153.2, 153.3, 153.4, 153.5, 153.6, 153.7, 153.8, 153.9, 154.0, 154.1, 154.2, 154.3, 154.4, 154.5, 154.6, 154.7, 154.8, 154.9, 155.0, 155.1, 155.2, 155.3, 155.4, 155.5, 155.6, 155.7, 155.8, 155.9, 156.0, 156.1, 156.2, 156.3, 156.4, 156.5, 156.6, 156.7, 156.8, 156.9, 157.0, 157.1, 157.2, 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171.6, 171.7, 171.8, 171.9, 172.0, 172.1, 172.2, 172.3, 172.4, 172.5, 172.6, 172.7, 172.8, 172.9, 173.0, 173.1, 173.2, 173.3, 173.4, 173.5, 173.6, 173.7, 173.8, 173.9, 174.0, 174.1, 174.2, 174.3, 174.4, 174.5, 174.6, 174.7, 174.8, 174.9, 175.0, 175.1, 175.2, 175.3, 175.4, 175.5, 175.6, 175.7, 175.8, 175.9, 176.0, 176.1, 176.2, 176.3, 176.4, 176.5, 176.6, 176.7, 176.8, 176.9, 177.0, 177.1, 177.2, 177.3, 177.4, 177.5, 177.6, 177.7, 177.8, 177.9, 178.0, 178.1, 178.2, 178.3, 178.4, 178.5, 178.6, 178.7, 178.8, 178.9, 179.0, 179.1, 179.2, 179.3, 179.4, 179.5, 179.6, 179.7, 179.8, 179.9, 180.0, 180.1, 180.2, 180.3, 180.4, 180.5, 180.6, 180.7, 180.8, 180.9, 181.0, 181.1, 181.2, 181.3, 181.4, 181.5, 181.6, 181.7, 181.8, 181.9, 182.0, 182.1, 182.2, 182.3, 182.4, 182.5, 182.6, 182.7, 182.8, 182.9, 183.0, 183.1, 183.2, 183.3, 183.4, 183.5, 183.6, 183.7, 183.8, 183.9, 184.0, 184.1, 184.2, 184.3, 184.4, 184.5, 184.6, 184.7, 184.8,

SL 1/18/23 40 uA CW

Location	Accelerator Operating Conditions	Instrument: Ludlum 78 Serial #: 322324 Calibration Due: 6/1/23	Survey Number	RWP
SOUTH LINAC	40 μ A		NA	2023-S002
Reason for Survey: Initial Entry				
LEGEND All readings in mR/hr whole body (unless annotated otherwise) --- Denotes posted area Ⓢ Denotes smear location (refer to page 2 for results) ┌ Contact dose rate ├ Whole Body dose rate └ Item description □ Denotes area not surveyed				
Approved Abbreviations RA - Radiation Area HRA - High Radiation Area CA - Contamination Area				
For Beam Enclosure Entry Surveys ☐ Full survey, all areas posted ☐ Partial survey with continuous surveillance ☐ Partial survey with exclusion zone(s) posted Comments:				
Performed By (Print): Alderson David/Matissa Schake		Date: 1/18/23	Crew Chief Review (Print): Chris Hummer	Date: 01/18/2023
RCD Review (Print):			Date:	

NL 1/18/23 40 uA

Location NORTH LINAC	Accelerator Operating Conditions 40 uA, 5 pass	Instrument: Ludlum 75 Serial #: 357046 Calibration Due: 10/7/23	Survey Number NA	RWP 2023-5002
Reason for Survey: Initial Entry For Maintenance Day				

LEGEND

All readings in mR/hr whole body (unless annotated otherwise)

--- Denotes posted area

Ⓢ Denotes smear location (refer to page 2 for results)

— Contact dose rate
 — Whole Body dose rate
 — Item description

□ Denotes area not surveyed

Approved Abbreviations

RA - Radiation Area
 HRA - High Radiation Area
 CA - Contamination Area

For Beam Enclosure Entry Surveys
☒ Full survey, all areas posted
☐ Partial survey with continuous surveillance
☐ Partial survey with exclusion zone(s) posted
Comments:

Performed By (Print): Steve Kennell / Zach Smith	Date: 1/18/23	Crew Chief Review (Print): Charles Humphrey	Date: 01/18/23	RCD Review (Print):	Date:
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SL 9/30/22 6 nA?

Location SOUTH LINAC	Accelerator Operating Conditions 6 nA / CW	Instrument: LUDWIG 78 Serial #: 022 520 Calibration Due: 11/9/22	Survey Number N/A	RWPR 2022 - 5002
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Reason for Survey: **RESTRICTED FOR LOW FLUX**

LEGEND
All readings in mR/hr whole body (unless annotated otherwise)

--- Denotes posted area

Denotes smear location (refer to page 2 for results)

□ Contact dose rate
□ Whole Body dose rate
□ Item description

▨ Denotes area not surveyed

Approved Abbreviations
RA – Radiation Area
HRA – High Radiation Area
CA – Contamination Area

For Beam Enclosure Entry Surveys

☒ Full survey, all areas posted

☐ Partial survey with continuous surveillance

☐ Partial survey with exclusion zone(s) posted

Comments:
N/A

Performed By (Print): DAVID HAMLETTE	Date: 9/30/22	Crew Chief Review (Print): ERIC FORMAN	Date: SEP 30, 2022	RCD Review (Print): Sign
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SL 7/14/22 50 uA CW

Location SOUTH LINAC	Accelerator Operating Conditions 50 μA 5 pass	Instrument: Ludlum 78 Serial #: 322329 Calibration Due: 12/6/22	Survey Number NA	RWP 2022-S002
Reason for Survey: Initial entry, beam loss investigation				
LEGEND All readings in mR/hr whole body (unless annotated otherwise) --- Denotes posted area Ⓜ Denotes smear location (refer to page 2 for results) ☐ Contact dose rate ☐ Whole Body dose rate ☐ Item description Denotes area not surveyed Approved Abbreviations RA - Radiation Area HRA - High Radiation Area CA - Contamination Area				
For Beam Enclosure Entry Surveys ☐ Full survey, all areas posted ☒ Partial survey with continuous surveillance ☐ Partial survey with exclusion zone(s) posted Comments: Surveys near cryomodules taken in walkway				
Performed By (Print): Adam Hartberger / Melissa Shaker Date: 7-14-22 Crew Chief Review (Print): Daniel Moser Date: 7/14/22 RCD Review (Print): Date:				

NL 6/7/22 tune beam during setup

Location NORTH LINAC	Accelerator Operating Conditions Tune Beam HARC S.S. Pass	Instrument: Ludlum 7M1 Serial #: 25018480 Calibration Due: 6/14/22	Survey Number NA	KVVP 2022-5002
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Reason for Survey: Initial Entry

LEGEND

All readings in mR/hr whole body (unless annotated otherwise)

--- Denotes posted area

⊙ Denotes smear location (refer to page 2 for results)

☐ Contact dose rate
Whole Body dose rate
Item description

▨ Denotes area not surveyed

Approved Abbreviations
 RA - Radiation Area
 HRA - High Radiation Area
 CA - Contamination Area

For Beam Enclosure Entry Surveys

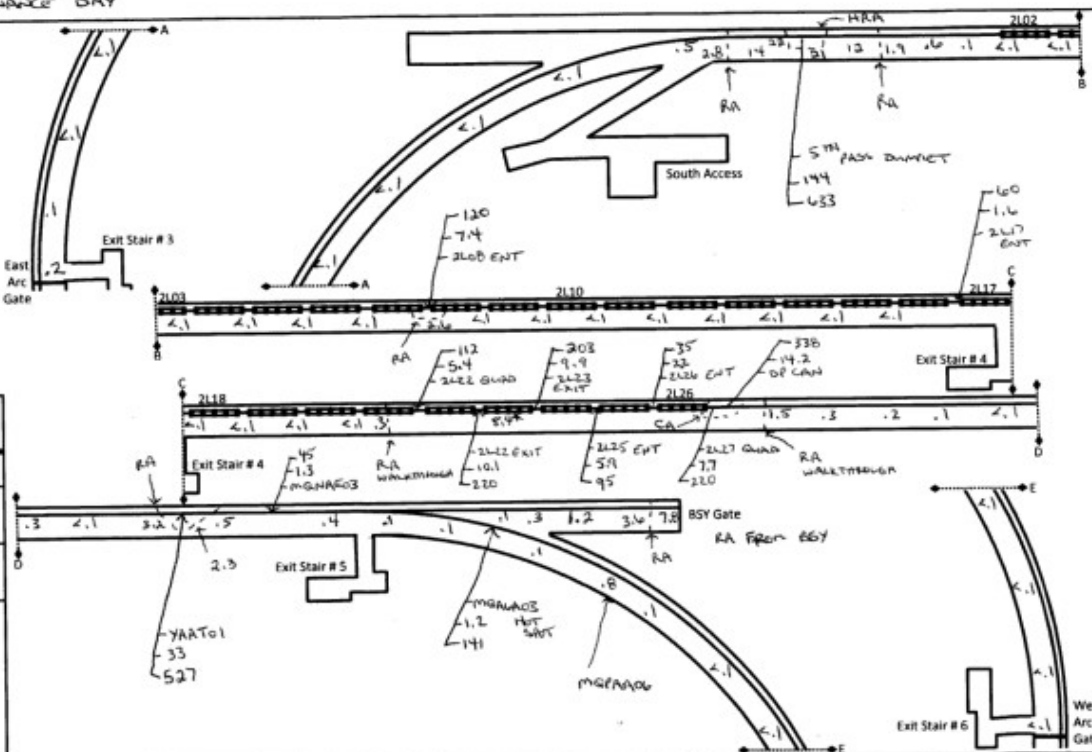
☒ Full survey, all areas posted

☐ Partial survey with continuous surveillance

☐ Partial survey with exclusion zone(s) posted

Comments:

SL 6/7/22 tune beam during setup

Location SOUTH LINAC	Accelerator Operating Conditions 5.5 PASS TO SC00 TUNE TO HC	Instrument: Ludlum 78 Serial #: 257666 Calibration Due: 6/21/22	Survey Number N/A	KWVP 2022-SC02					
Reason for Survey: MAINTENANCE DAY									
LEGEND All readings in mR/hr whole body (unless annotated otherwise) --- Denotes posted area # Denotes smear location (refer to page 2 for results) Contact dose rate Whole Body dose rate Item description  Denotes area not surveyed									
Approved Abbreviations RA - Radiation Area HRA - High Radiation Area CA - Contamination Area									
<table border="1"> <thead> <tr> <th>For Beam Enclosure Entry Surveys</th> </tr> </thead> <tbody> <tr> <td>☐ Full survey, all areas posted</td> </tr> <tr> <td>☐ Partial survey with continuous surveillance</td> </tr> <tr> <td>☐ Partial survey with exclusion zone(s) posted</td> </tr> <tr> <td>Comments: * UNDER CRASH-SCHE</td> </tr> </tbody> </table>					For Beam Enclosure Entry Surveys	☐ Full survey, all areas posted	☐ Partial survey with continuous surveillance	☐ Partial survey with exclusion zone(s) posted	Comments: * UNDER CRASH-SCHE
For Beam Enclosure Entry Surveys									
☐ Full survey, all areas posted									
☐ Partial survey with continuous surveillance									
☐ Partial survey with exclusion zone(s) posted									
Comments: * UNDER CRASH-SCHE									
									
Performed By (Print): ADAM HARTBERGER	Date: 6/17/22	Crow Chief Review (Print): CHRIS HARTBERGER	Date: 06/07/22	RCD Review (Print): 					
				Date					

SL 2/4/22 709 uA CW

Location SOUTH LINAC	Accelerator Operating Conditions 709 uA / CW	Instrument: <u>BURMIN 78</u> Serial #: <u>922329</u> Calibration Due: <u>5/17/22</u>	Survey Number N/A	RWP 2022-5002
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Reason for Survey: REPAIRS TO ZL00

LEGEND

All readings in mR/hr whole body (unless annotated otherwise)

--- Denotes posted area

(H) Denotes smear location (refer to page 2 for results)

— Contact dose rate
 — Whole Body dose rate
 — Item description

Denotes area not surveyed

Approved Abbreviations

RA – Radiation Area
HRA – High Radiation Area
CA – Contamination Area

For Beam Enclosure Entry Surveys

☒ Full survey, all areas posted

☐ Partial survey with continuous surveillance

☐ Partial survey with exclusion zone(s) posted

Comments:
BARREL OVERFLOWING AT STATION 2100

Performed By (Print): DAVID HAMLETTE	Date: 2/3/22	Crew Chief Review (Print): CHRIS HUMPHRY	Date: 02/04/2022	RCD Review (Print):	Date:

SL 1/27/22 70 uA CW

Location SOUTH LINAC	Accelerator Operating Conditions HC -70 uA 3 PASS HA -12 uA	Instrument: <u>LMHM 79</u> Serial #: <u>25018480</u> Calibration Due: <u>6/14/22</u>	Survey Number <u>N/A</u>	RWP <u>2022-5002</u>
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Reason for Survey: MJH8T04 TROUBLESHOOTING

LEGEND
All readings in mR/hr whole body (unless annotated otherwise)

--- Denotes posted area

⊙ Denotes smear location (refer to page 2 for results)

□ Contact dose rate
□ Whole Body dose rate
□ Item description

▨ Denotes area not surveyed

Approved Abbreviations
RA - Radiation Area
HRA - High Radiation Area
CA - Contamination Area

For Beam Enclosure Entry Surveys

☒ Full survey, all areas posted

☐ Partial survey with continuous surveillance

☐ Partial survey with exclusion zone(s) posted

Comments:
* UNDER CAY ON DOOR

Performed By (Print): ADAM HARTBERGER Date: 1/27/22 Crew Chief Review (Print): I. Z. CARLINO Date: 1/27/22 RCD Review (Print): _____ Date: _____

NL 12/21/21 70 uA CW

Location NORTH LINAC	Accelerator Operating Conditions <i>70uA, 4th Pass</i>	Instrument: <i>Ludlum 70</i> Serial #: <i>522329</i> Calibration Due: <i>5/17/22</i>	Survey Number <i>NA</i>	RWP <i>ZQ21-5002</i>
Reason for Survey: <i>INITIAL ENTRY FOR RESTRICTED ACCESS</i>				
LEGEND All readings in mR/hr whole body (unless annotated otherwise) --- Denotes posted area ⊙ Denotes smear location (refer to page 2 for results) ┌ Contact dose rate ├ Whole Body dose rate └ Item description ▨ Denotes area not surveyed Approved Abbreviations RA – Radiation Area HRA – High Radiation Area CA – Contamination Area				
For Beam Enclosure Entry Surveys ☒ Full survey, all areas posted ☐ Partial survey with continuous surveillance ☐ Partial survey with exclusion zone(s) posted Comments:				

NL 10/20/21 40 uA CW

Location NORTH LINAC	Accelerator Operating Conditions 55 kV/50 Ck/40 uA(10)	Instrument: LDLUM 79 Serial #: 2501 8459 Calibration Due: 1/26/22	Survey Number N/A	RWP 2021-5002
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Reason for Survey: **MAINTENANCE DAY**

LEGEND
All readings in mR/hr whole body (unless annotated otherwise)
--- Denotes posted area
Denotes smear location (refer to page 2 for results)
Contact dose rate
Whole Body dose rate
Item description
Denotes area not surveyed

Approved Abbreviations
RA - Radiation Area
HRA - High Radiation Area
CA - Contamination Area

For Beam Enclosure Entry Surveys
☒ Full survey, all areas posted
☐ Partial survey with continuous surveillance
☐ Partial survey with exclusion zone(s) posted

Comments:
*** UNPOSTED CHRONOMETER**

Performed By (Print): MELISSA SCHWAB / DANIEL HAMLETTE	Date: 10/20/21	Crew Chief Review (Print): J. Friereson	Date:	RCD Review (Print):	Date:
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SL 10/20/21 40 uA CW

Location SOUTH LINAC	Accelerator Operating Conditions 40 uA 5 PASSES	Instrument: <u>UDPM 79</u> Serial #: <u>25018480</u> Calibration Due: <u>12/30/21</u>	Survey Number <u>N/A</u>	RWP <u>2021-5002</u>
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Reason for Survey: MAINTENANCE DAY

LEGEND
All readings in mR/hr whole body (unless annotated otherwise)
--- Denotes posted area
Denotes smear location (refer to page 2 for results)
Contact dose rate
Whole Body dose rate
Item description
Denotes area not surveyed

Approved Abbreviations
RA - Radiation Area
HRA - High Radiation Area
CA - Contamination Area

For Beam Enclosure Entry Surveys
☒ Full survey, all areas posted
☐ Partial survey with continuous surveillance
☐ Partial survey with exclusion zone(s) posted
 Comments:
* UNDER CAPTIVATION

Performed By (Print): ADAM HARTBERGER ALDO DA SILVA Date: 10/20/21 Crew Chief Review (Print): S. FRIERSON Date: 10/20/21 RCD Review (Print): ADAM HARTBERGER Date: 10/20/21

NL 8/2/21 5 uA tune

Location NORTH LINAC	Accelerator Operating Conditions Beam C0 25 8/2/21 5 uAmp TUNE BEAM	Instrument: 3018459 - UDLUM 79 Serial #: 25018459 Calibration Due: 1/26/22	Survey Number NA	RWP 2021-5002
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Reason for Survey: MAINTENANCE Full Survey

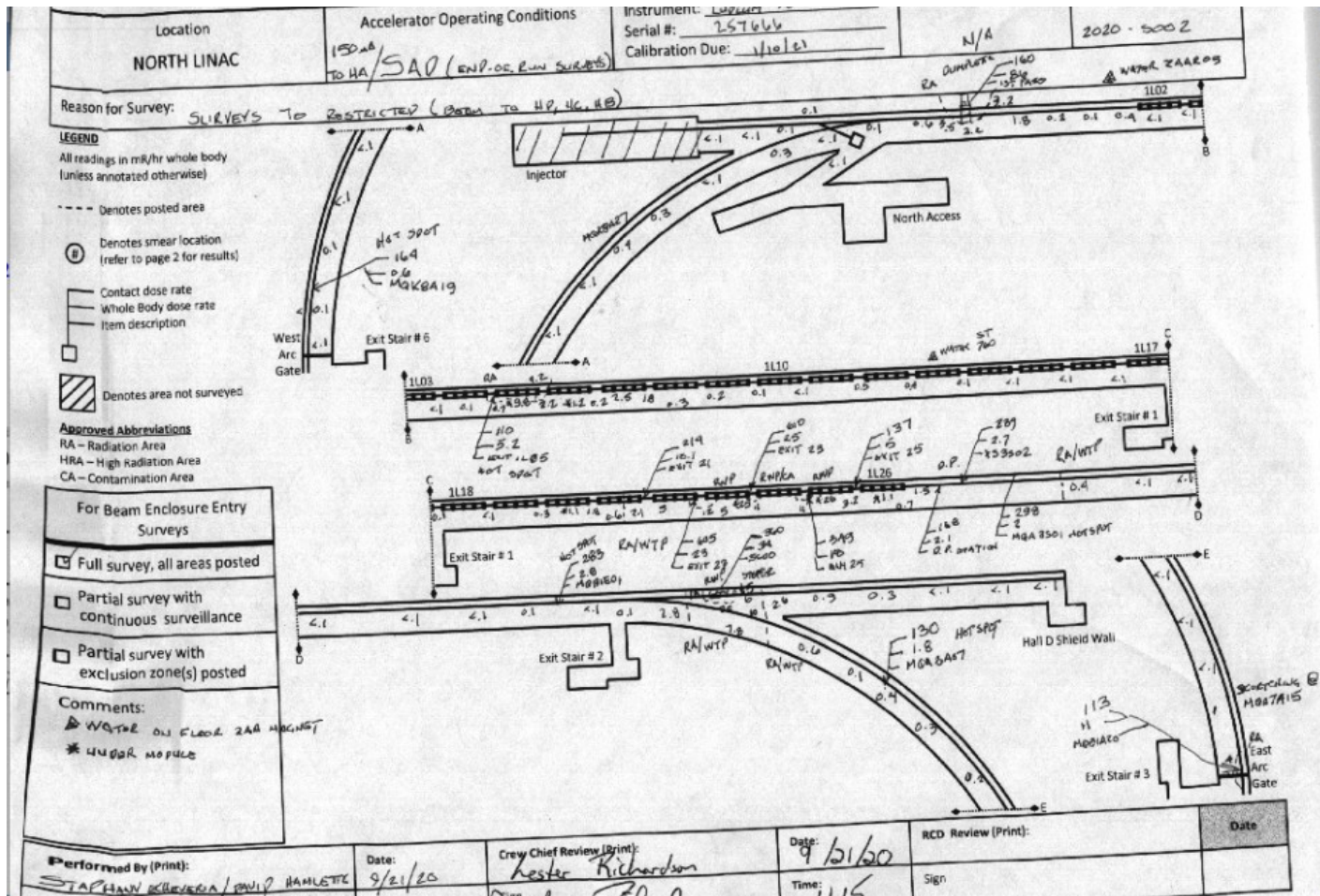
LEGEND
All readings in mR/hr whole body (unless annotated otherwise)
--- Denotes posted area
Denotes smear location (refer to page 2 for results)
Contact dose rate
Whole Body dose rate
Item description
Denotes area not surveyed

Approved Abbreviations
RA - Radiation Area
HRA - High Radiation Area
CA - Contamination Area

For Beam Enclosure Entry Surveys
☒ Full survey, all areas posted
☐ Partial survey with continuous surveillance
☐ Partial survey with exclusion zone(s) posted
 Comments:

Performed By (Print): ZACH GURTH
Date: 8/2/21
Crew Chief Review (Print): M. Morz
Date: 2021 8/2
RCD Review (Print):
Date:

North Linac 9/21/20 150 uA CW to A



South Linac 9/21/20 150 uA CW to A

Location SOUTH LINAC	Accelerator Operating Conditions 30 uA 1 PASS	Instrument: Ludlum 79 Serial #: 25018459 Calibration Due: 1/24/21	Survey Number JA	RWP 2020-5002
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Reason for Survey: Initial Entry to start SAD

LEGEND

All readings in mR/hr whole body (unless annotated otherwise)

--- Denotes posted area

Ⓢ Denotes smear location (refer to page 2 for results)

☐ Contact dose rate
 ☐ Whole Body dose rate
 ☐ Item description

▨ Denotes area not surveyed

Approved Abbreviations
 RA - Radiation Area
 HRA - High Radiation Area
 CA - Contamination Area

For Beam Enclosure Entry Surveys

☒ Full survey, all areas posted

☐ Partial survey with continuous surveillance

☐ Partial survey with exclusion zone(s) posted

Comments:
 CONTAMINATION SURVEYS ON SEPARATE FORM

Performed By (Print): Zach Gurni / Adam Hatzmberger	Date: 9/21/20	Crew Chief Review (Print): Lester Richardson	Date: 9/21/20	RCD Review (Print): [Signature]
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North Linac 2/5/20 ? beam

[illegible]

North Linac 2/21/20 150 uA CW one pass

Location NORTH LINAC	Accelerator Operating Conditions 150 uAmp 1pass	Instrument: <u>Ludlum 79</u> Serial #: <u>25018459</u> Calibration Due: <u>2/16/20</u>	Survey Number <u>NA</u>	RWP <u>2020-5002</u>
Reason for Survey: <u>NL Full Survey</u>				
LEGEND All readings in mR/hr whole body (unless annotated otherwise) --- Denotes posted area # Denotes smear location (refer to page 2 for results) ☐ Contact dose rate ☐ Whole Body dose rate ☐ Item description ▨ Denotes area not surveyed Approved Abbreviations RA - Radiation Area HRA - High Radiation Area CA - Contamination Area				
For Beam Enclosure Entry Surveys ☒ Full survey, all areas posted ☐ Partial survey with continuous surveillance ☐ Partial survey with exclusion zone(s) posted Comments: 1 - SURVEY TAKEN UNDER CAYOMODULE				
Performed By (Print): <u>ZACH GIVATI</u>	Date: <u>1/21/20</u>	Crew Chief Review (Print): <u>CHIEF HUMPHRY</u>	Date: <u>01/21/2020</u>	RCD Review (Print): <u></u>
				Date: <u></u>

South Linac 1/13/20 A 150 uA 1p C 20 uA 5p

Location SOUTH LINAC	Accelerator Operating Conditions HA - 150 uA 4 pass HC - 20 uA 5 pass 11.5 A/W	Instrument: <u>25618459</u> Serial #: <u>25618459</u> Calibration Due: <u>2-16-20</u>	Survey Number <u>N/A</u>	RWP <u>2020-5002</u>
Reason for Survey: <u>Controlled access</u>				

LEGEND

All readings in mR/hr whole body (unless annotated otherwise)

--- Denotes posted area

Ⓢ Denotes smear location (refer to page 2 for results)

☐ Contact dose rate
☐ Whole Body dose rate
☐ Item description

▨ Denotes area not surveyed

Approved Abbreviations
RA - Radiation Area
HRA - High Radiation Area
CA - Contamination Area

For Beam Enclosure Entry Surveys ☒ Full survey, all areas posted ☐ Partial survey with continuous surveillance ☐ Partial survey with exclusion zone(s) posted Comments: <u>* under ergonomobile</u> <u>* repeated hot spot</u>	Performed By (Print): <u>R. V. [signature]</u> Date: <u>1-13-20</u> Crew/Chief Review (Print): <u>Ken Surles-Law</u> Date: <u>1/13/20</u> RCD Review (Print): <u>[signature]</u> Date: <u>[blank]</u>
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BSY 5/20/24 90 uA CW

Location		Accelerator Operating Conditions		Instrument: <u>Ludlum T8</u>		RWP	
BSY		<u>90wt, Spass</u>		Serial #: <u>323349</u>		<u>2024-5002</u>	
Reason for survey: <u>SAD</u>							
LEGEND All readings in mR/h whole body (unless annotated otherwise) --- Denotes posted area # Denotes smear location (results attached if applicable) # Denotes tritium wipe/swab (results attached if applicable) Contact dose rate 30 cm dose rate Item description Denotes area not surveyed Abbreviations RMA – radioactive material area RCA – radiologically controlled area RA – radiation area HRA – high radiation area CA – contamination area HCA – high contamination area							
Beam Enclosure Entry Surveys ☒ Full survey, all areas posted ☐ Partial survey with continuous surveillance ☐ N/A Comments:							
Performed by (print) <u>Stephen Kennell</u> Date <u>5/20/24</u> Crew Chief Review (print) <u>Lester Richardson</u> Date <u>5/20/24</u> RCD Review (print) Date							

BSY 3/16/24 Lambertson incident

Location		Accelerator Operating Conditions		Instrument: <u>Ludlum 78</u>		Page <u>1</u> of <u>1</u>	
BSY		Time Mode, Surf		Serial #: <u>322529</u>		RWP	
Reason for survey: <u>Vacuum Repair</u>				Calibration due: <u>7/26/24</u>		<u>2024-5002</u>	
LEGEND All readings in mR/h whole body (unless annotated otherwise) --- Denotes posted area # Denotes smear location (results attached if applicable) # Denotes tritium wipe/swab (results attached if applicable) F Contact dose rate 30 cm dose rate Item description Denotes area not surveyed Abbreviations RMA - radioactive material area RCA - radiologically controlled area RA - radiation area HRA - high radiation area CA - contamination area HCA - high contamination area							
Beam Enclosure Entry Surveys ☒ Full survey, all areas posted ☐ Partial survey with continuous surveillance ☐ N/A Comments:							
Performed by (print) <u>Stephen Kanne</u> Date <u>3/16/24</u> Crew Chief Review (print) <u>Brian Freeman</u> Date <u>3/16/24</u> RCD Review (print)							

BSY 9/24/23 8 uA tune

RADIOLOGICAL SURVEY FORM				
Location BSY	Accelerator Operating Conditions 8 uA, Tuned Beam	Instrument: Lydium 75 Serial #: 322329 Calibration Due: 3/12/24	Survey Number NA	RWP 2023-SDJ2
Reason for Survey: Initial Entry for PSS Maintenance				

LEGEND

All readings in mR/hr whole body (unless annotated otherwise)

--- Denotes posted area

Ⓜ Denotes smear location (refer to page 2 for results)

— Contact dose rate
— Whole Body dose rate
— Item description

▨ Denotes area not surveyed

Approved Abbreviations
RA – Radiation Area
HRA – High Radiation Area
CA – Contamination Area

For Beam Enclosure Entry Surveys	
☒ Full survey, all areas posted	
☐ Partial survey with continuous surveillance	
☐ Partial survey with exclusion zone(s) posted	
Comments:	

Performed By (Print): Stephen Kennell	Date: 9/24/23	Crew Chief Review (Print): Matthew Mack	Date: 9/24/23	RCD Review (Print):	Date:
Signature: <i>[Signature]</i>	Time: 13:11	Sign: <i>[Signature]</i>	Time: 11:07	Sign:	

9/11/2023 8 uA tune 5pass

HPF-OPS-011.a		Rev: 0	05/06/2016	RADIOLOGICAL SURVEY FORM		Survey Number		RWP		
Location BSY		Accelerator Operating Conditions 0.1 Amf, Tunc, 10.6 GeV, 5 pass		Instrument: Ludlum 79 Serial #: 25018480 Calibration Due: 12/5/23		NA		2023 - 5002		
Reason for Survey: INITIAL ENTRY										
LEGEND All readings in mR/hr whole body (unless annotated otherwise) --- Denotes posted area Ⓜ Denotes smear location (refer to page 2 for results) ☐ Contact dose rate ☐ Whole Body dose rate ☐ Item description ▨ Denotes area not surveyed Approved Abbreviations RA - Radiation Area HRA - High Radiation Area CA - Contamination Area										
For Beam Enclosure Entry Surveys ☒ Full survey, all areas posted ☐ Partial survey with continuous surveillance ☐ Partial survey with exclusion zone(s) posted Comments: * CONTACT RADIATION TO ACCESS RADIATION AREAS										
Performed By (Print): David Hamlette/Aldaisia Donald		Date: 9/11/23		Crew Chief Review (Print): [Signature]		Date: 2023 Sept 11		RCD Review (Print):		Date
Sign: [Signature]		Time: 0942		Sign: [Signature]		Time: 953		Sign:		

Note elevated
B dumptet,
Lambertson

BSY 3/20/23 50 uA CW 5 pass

HPF-OPS-011.a	Rev: 0	05/06/2016	RADIOLOGICAL SURVEY FORM	Page 1 of 1
Location BSY	Accelerator Operating Conditions HB ~4 nA 5 PASS MC ~50 uA 5 PASS		Instrument: Ludlum 79 Serial #: 25018480 Calibration Due: 6/1/23	Survey Number N/A
Reason for Survey: START OF SAD				

LEGEND
All readings in mR/hr whole body (unless annotated otherwise)

--- Denotes posted area

Ⓢ Denotes smear location - (refer to page 2 for results)

☐ Contact dose rate
☐ Whole Body dose rate
☐ Item description

▨ Denotes area not surveyed

Approved Abbreviations
RA - Radiation Area
HRA - High Radiation Area
CA - Contamination Area

For Beam Enclosure Entry Surveys	
☒ Full survey, all areas posted	
☐ Partial survey with continuous surveillance	
☐ Partial survey with exclusion zone(s) posted	
Comments:	

Performed By (Print): ADAM HARTBERGER	Date: 3/20/23	Crew Chief Review (Print): L. CARLINO	Date: 3/20/23	RCD Review (Print): Stephen Fennell	Date: 3/20/23
Sign: _____	Time: _____	Sign: _____	Time: _____	Sign: _____	Time: _____

BSY 3/1/23 70 uA CW 5 pass

HPF-OPS-011.a		Rev: 0	05/06/2016	RADIOLOGICAL SURVEY FORM		Page ____ of ____	
Location BSY	Accelerator Operating Conditions 4 n Amp, 5 pass to B 70 n Amp, 5 pass to C	Instrument: LUDLUM 78 Serial #: 2576660 Calibration Due: 7/25/23	Survey Number N/A	RWP 2023-S002			
Reason for Survey: Initial Entry							

LEGEND

All readings in mR/hr whole body (unless annotated otherwise)

--- Denotes posted area

Ⓟ Denotes smear location (refer to page 2 for results)

— Contact dose rate
— Whole Body dose rate
— Item description

▨ Denotes area not surveyed

Approved Abbreviations
RA - Radiation Area
HRA - High Radiation Area
CA - Contamination Area

The diagram illustrates the layout of the BSY facility, including the South Linac Gate, M2 G1C02 entrance, and various halls (A, B, C) with their respective shield walls. Radiation levels are indicated by numbers along the paths and in specific areas. For example, levels range from 0.1 to 3.7 mR/hr. A 'BSY Dump' and 'AR Dump/ette' are also marked. A vertical line labeled 'A' is present in the upper right section of the diagram.

For Beam Enclosure Entry Surveys	
☒ Full survey, all areas posted	
☐ Partial survey with continuous surveillance	
☐ Partial survey with exclusion zone(s) posted	
Comments:	

Performed By (Print): Adam Hartberger/Aldasia Donald	Date: 3/1/23	Crew Chief Review (Print): Citels Humphrey	Date: 03/01/2023	RCD Review (Print):	Date:
Sign: [Signature]	Time: 1:15	Sign: [Signature]	Time: 1:23	Sign:	

BSY 1/18/23 40 uA CW, 5 pass

RADIOLOGICAL SURVEY FORM				
Location BSY	Accelerator Operating Conditions 40uA, 5pass	Instrument: Ludlum 78 Serial #: 157666 Calibration Due: 1/27/23	Survey Number NA	RWP 5002-2023
Reason for Survey: Initial Entry				

LEGEND

All readings in mR/hr whole body (unless annotated otherwise)

--- Denotes posted area

Ⓟ Denotes smear location (refer to page 2 for results)

— Contact dose rate
 — Whole Body dose rate
 — Item description

▨ Denotes area not surveyed

Approved Abbreviations

RA – Radiation Area
HRA – High Radiation Area
CA – Contamination Area

For Beam Enclosure Entry Surveys ☒ Full survey, all areas posted ☐ Partial survey with continuous surveillance ☐ Partial survey with exclusion zone(s) posted	
Comments:	

Performed By (Print): Steve Kennell / ZACH GIANNI	Date: 1/18/23 1/18/23	Crew Chief Review (Print): CHRIS HUMPHREY	Date: 01/18/2023	RCD Review (Print): 	Date
Signature: [Signature]	Time:	Signature: [Signature]	Time:	Signature:	

BSY 12/19/22 60 uA 5 pass

GPH-QPL-001.4		Rev. D	05/06/2016	BIOLOGICAL SURVEY FORM		Page 1 of 1	
Location: BSY		Accelerator Operating Conditions: 60 uA 5 PASS		Instrument: Geiger Tube Serial #: 251000 Calibration Due: 10/1/25		Survey Number: 1.1	
Reason for Survey: Initial Count		NSP 2022-5026					

WARNING
Exceeding or adding whole-body counts constitutes a violation.

--- = boundary, partial area

⊗ = boundary, entire area

--- = contact area only
--- = whole-body area only
--- = item description

⊗ = boundary, entire area

Approved Observations:
 no = no observation
 yes = high radiation area
 ca = contamination area

For Beam Enclosure Entry Surveys:

☒ Full survey, all areas posted

☐ Partial survey with continuous surveillance

☐ Partial survey with exclusion zone(s) posted

Comments:

Performed by (Print): Adam H. Hodge / Adam David	Date: 12/19/22	Count Rate (Print): 1.1	Time: 1207	NSP Number (Print): 2022-5026	Time: 1207
Checked by (Print): Adam David	Date: 12/19/22	Count Rate (Print): 1.1	Time: 1207	NSP Number (Print): 2022-5026	Time: 1207

BSY 11/15/22 partial to Lambertson viewer

REV: 0		05/06/2016		RADIOLOGICAL SURVEY FORM		Page 1 of 1	
Location BSY	Accelerator Operating Conditions 5TH PASS HALL C 604A 3RD PASS HALL A 45uA		Instrument: <u>Teleprobe FH40</u> Serial #: <u>018125</u> Calibration Due: <u>1/20/23</u>		Survey Number N/A	RWP 2022-8002	
Reason for Survey: <u>LAMBERTSON VIEWER ADJUSTMENT</u>							

LEGEND

All readings in mR/hr whole body (unless annotated otherwise)

--- Denotes posted area

Ⓢ Denotes smear location (refer to page 2 for results)

├ Contact dose rate
├ Whole Body dose rate
└ Item description

▨ Denotes area not surveyed

Approved Abbreviations
 RA - Radiation Area
 HRA - High Radiation Area
 CA - Contamination Area

For Beam Enclosure Entry Surveys

☐ Full survey, all areas posted

☒ Partial survey with continuous surveillance

☐ Partial survey with exclusion zone(s) posted

Comments:
EXCLUDED ONLY

The diagram illustrates the layout of the BSY facility. Key features include the South Linac Gate, the Lambertson viewer, the BSY Dump, and the Hall A, B, and C Shield Walls. Hand-drawn lines and arrows indicate the survey path and associated dose rate readings. The readings are: 8.9, 1.02, 0.5, 0.22, 0.86, 0.93, 0.5, 0.2, 0.2, and 0.03. The area between the South Linac Gate and the Lambertson viewer is marked with a dashed line, indicating a posted area. The area between the Lambertson viewer and the Hall A Shield Wall is marked with a hatched pattern, indicating an area not surveyed.

Performed By (Print): <u>Brian Kregman</u>	Date: <u>11/15/22</u>	Crow Chief Review (Print): <u>Chris Hummer</u>	Date: <u>11/15/2022</u>	RCD Review (Print):	Date:
Sign: <u>B. K.</u>	Time:	Sign: <u>CH</u>	Time:	Sign:	

BSY 8/5/22 partial to Lambertson viewer

HPF-OPS-011.a	Rev: 0	05/06/2016	RADIOLOGICAL SURVEY FORM		Page 1 of 1	
Location BSY	Accelerator Operating Conditions 80 mA to HC		Instrument: <u>W2014 78</u> Serial #: <u>357666</u> Calibration Due: <u>1/27/22</u>		Survey Number N/A	RWP 2022-5002
Reason for Survey: <u>ESCAP TO LAMBERTSON CAMERA</u>						
LEGEND All readings in mR/hr whole body (unless annotated otherwise) --- Denotes posted area # Denotes smear location (refer to page 2 for results) Contact dose rate Whole Body dose rate Item description Denotes area not surveyed Approved Abbreviations RA - Radiation Area HRA - High Radiation Area CA - Contamination Area						
For Beam Enclosure Entry Surveys ☐ Full survey, all areas posted ☒ Partial survey with continuous surveillance ☐ Partial survey with exclusion zone(s) posted Comments: <u>N/A</u>						
The diagram illustrates the layout of the BSY facility. It shows the South Linac Gate, the BSY Dump, and the Hall A, B, and C Shield Walls. Radiation level readings are provided at various points: 1.8, 1.6, 3.0, 1.6, 2, 1, 0.8, 0.6, 0.8, 0.8, 0.8, 0.6, 0.3, 0.1, and 0.3. The diagram also indicates areas not surveyed with hatched patterns. Handwritten notes include 'M2 7 EXT MAGNET' and 'M10 POINT MAGNET'.						
Performed By (Print): <u>DAVID HAMLETTE</u>	Date: <u>8/5/22</u>	Crew Chief Review (Print): <u>L. J. CARCINO</u>	Date: <u>8/5/2022</u>	RCD Review (Print):	Date	
Sign: <u>[Signature]</u>	Time:	Sign: <u>[Signature]</u>	Time: <u>0936</u>	Sign		

BSY 7/20/22 70 uA CW pass 5

HPF-OPS-011.a	Rev: 0	05/06/2016	RADIATION CONTROL DEPARTMENT RADIOLOGICAL SURVEY FORM		Page <u>1</u> of <u>1</u>	
Location BSY	Accelerator Operating Conditions 70 uA MP CW 10.6 GeV		Instrument: <u>LUDUM 78</u> Serial #: <u>257666</u> Calibration Due: <u>12/14/22</u>		Survey Number N/A	RWP 2022-5002
Reason for Survey: <u>INITIAL ENTRY</u>						

LEGEND

All readings in mR/hr whole body (unless annotated otherwise)

--- Denotes posted area

⊙ Denotes smear location (refer to page 2 for results)

— Contact dose rate
— Whole Body dose rate
— Item description

▨ Denotes area not surveyed

Approved Abbreviations
RA - Radiation Area
HRA - High Radiation Area
CA - Contamination Area

For Beam Enclosure Entry Surveys			
☒ Full survey, all areas posted			
☐ Partial survey with continuous surveillance			
☐ Partial survey with exclusion zone(s) posted			
Comments:			

Performed By (Print): <u>ADAM HAN BERGER / ZACH GINTH</u>	Date: <u>7-20-22</u>	Crew Chief Review (Print): <u>Daniel Morin</u>	Date: <u>7/20/22</u>	RCD Review (Print):	Date:
Sign: <u>[Signature]</u>	Time: <u>0800</u>	Sign: <u>[Signature]</u>	Time: <u>0820</u>	Sign:	

BSY 6/23/22 45 uA 5 pass

HPF-OPS-011.a	Rev: 0	05/06/2016	RADIOLOGICAL SURVEY FORM		Page 1 of 1	
Location BSY	Accelerator Operating Conditions 5000/CW/45uA to Hall C		Instrument: <u>LUPIN 79</u> Serial #: <u>25618480</u> Calibration Due: <u>12/3/22</u>	Survey Number <u>N/A</u>	RWP <u>2022-5002</u>	
Reason for Survey: <u>MAINTENANCE DAY</u>						
LEGEND All readings in mR/hr whole body (unless annotated otherwise) --- Denotes posted area (B) Denotes smear location (refer to page 2 for results) Contact dose rate Whole Body dose rate Item description Denotes area not surveyed Approved Abbreviations RA - Radiation Area HRA - High Radiation Area CA - Contamination Area						
For Beam Enclosure Entry Surveys ☒ Full survey, all areas posted ☐ Partial survey with continuous surveillance ☐ Partial survey with exclusion zone(s) posted Comments: <u>N/A</u>						
Performed By (Print): <u>DAVID HAMLETT</u>	Date: <u>6/23/22</u>	Crew Chief Review (Print): <u>Lester Richardson</u>	Date: <u>6/23/22</u>	RCD Review (Print):	Date	
Sign:	Time:	Sign:	Time:	Sign:	Date	

BSY 2/8/22 70 uA CW *C12

RADIOLOGICAL SURVEY FORM					
Location BSY	Accelerator Operating Conditions 70 uAmp	Instrument: LUDLUM 79 Serial #: Z5018480 Calibration Due: 6/14/22	Survey Number NA	RWP 2022-5002	
Reason for Survey: INITIAL ENTRY					
LEGEND All readings in mR/hr whole body (unless annotated otherwise) - - - Denotes posted area # Denotes smear location (refer to page 2 for results) Contact dose rate Whole Body dose rate Item description [Hatched Box] Denotes area not surveyed Approved Abbreviations RA – Radiation Area HRA – High Radiation Area CA – Contamination Area					
For Beam Enclosure Entry Surveys ☒ Full survey, all areas posted ☐ Partial survey with continuous surveillance ☐ Partial survey with exclusion zone(s) posted Comments: The diagram shows a complex layout of the BSY beam enclosure. It includes the South Linac Gate at the top left, leading into a series of rooms and corridors. Key areas labeled include Hall A Dump HC, Hall A Stupper, Hall A Quad Magnet, Hall B Shield Wall, and Hall C Shield Wall. Numerous numerical values representing radiation levels (mR/hr) are written along the paths, such as 0.5, 0.15, 0.1, 0.5, 0.7, 1.05, 1.2, 1.9, 1.2, 0.5, 0.15, 0.12, 0.25, 0.3, 0.5, 1.15, 3, 6, 11.3, 40, 3.5, 1.5, 2.6, 0.7, 0.12, 0.05, 0.02, 0.02, 0.01, 0.02, 0.01, 0.05, 3.8, 0.4, 0.06, 0.04. Some areas are marked with hatching to indicate they were not surveyed. Notes like 'RA POSTED' and 'MARK KILZ QUAD MAGNET' are also present.					
Performed By (Print): ZACH GUNH	Date: 2/8/22	Crew Chief Review (Print): <i>M. M. 2022</i>	Date: 2022 FEB 8	RCD Review (Print):	Date:

HPF-OPS-U11.a		03/06/2019		RADIOLOGICAL SURVEY FORM		Page 1 of 1	
Location BSY		Accelerator Operating Conditions 70 uAmp		Instrument: LUDLUM 78 Serial #: 322324 Calibration Due: 5/17/22		Survey Number NA	
						RWP 2021-5002	
Reason for Survey: INITIAL ENTRY							
LEGEND All readings in mR/hr whole body (unless annotated otherwise) - - - Denotes posted area # Denotes smear location (refer to page 2 for results) - Contact dose rate - Whole Body dose rate - Item description □ Denotes area not surveyed Approved Abbreviations RA – Radiation Area HRA – High Radiation Area CA – Contamination Area							
For Beam Enclosure Entry Surveys ☒ Full survey, all areas posted ☐ Partial survey with continuous surveillance ☐ Partial survey with exclusion zone(s) posted Comments:		The diagram illustrates the layout of the BSY beam enclosure. It starts with the 'South Linac Gate' on the left. A horizontal corridor leads to a 'Dump Chamber' at the top right, which is labeled 'BSY Dump'. From the dump chamber, three main paths emerge: one going up-right towards 'Hall C Shield Wall', one going down-right towards 'Hall B Shield Wall', and one going further down towards 'Hall A Shield Wall'. Various radiation level measurements are noted along these paths, such as 0.1, 0.3, 0.4, 1.7, 3.5, 1.6, 0.2, 0.1, 0.5, and several instances of 0.1. Specific areas are labeled 'RA' (Radiation Area), 'Hazardous Material', and 'Contamination'. A 'Dump Gate Locked' note is near the dump chamber. The diagram also shows 'Hall A Shield Wall', 'Hall B Shield Wall', and 'Hall C Shield Wall' at the ends of the paths.					
Performed By (Print): ZACH FUATH / STEVE KENNELL		Date: 12/21/22	Crew Chief/Review (Print): M. Morz	Date: 2021 DEC 21	RCD Review (Print):	Date:	
Sign: [Signature]		Time:	Sign: [Signature]	Time:	Sign:		

BSY 11/3/21 45 uA 5 pass

HPF-OPS-011.a		Rev: 0	05/06/2016	RADIOLOGICAL SURVEY FORM		Page 1 of 1	
Location BSY		Accelerator Operating Conditions 40 uA 45 uA 5 pass		Instrument: <u>Luplum 79</u> Serial #: <u>25018400</u> Calibration Due: <u>12/30/21</u>		Survey Number <u>NA</u>	
				RWP <u>W21-S002</u>			
Reason for Survey: <u>Initial Entry Survey</u>							
LEGEND All readings in mR/hr whole body (unless annotated otherwise) --- Denotes posted area # Denotes smear location (refer to page 2 for results) — Contact dose rate — Whole Body dose rate — Item description ▨ Denotes area not surveyed Approved Abbreviations RA – Radiation Area HRA – High Radiation Area CA – Contamination Area							
For Beam Enclosure Entry Surveys ☒ Full survey, all areas posted ☐ Partial survey with continuous surveillance ☐ Partial survey with exclusion zone(s) posted Comments:							
Performed By (Print): <u>Zach Givanti</u> Sign: <u>[Signature]</u>		Date: <u>11/3/21</u> Time: <u>11/3/21</u>		Crew Chief/Review (Print): <u>Michael Aiken</u> Sign: <u>[Signature]</u>		Date: <u>11/3/21</u> Time: <u>11/3/21</u>	
				RCD Review (Print): Sign:		Date:	

BSY 10/20/21

Location BSY		Accelerator Operating Conditions 480kV, 5pass	Instrument: Ludlum 78 Serial #: 323529 Calibration Due: 11/13/2021	Survey Number NA	RWP 2021-5002
Reason for Survey: <u>Initial Entry For Maintenance</u>					
LEGEND All readings in mR/hr whole body (unless annotated otherwise) --- Denotes posted area # Denotes smear location (refer to page 2 for results) □ Contact dose rate □ Whole Body dose rate □ Item description ▨ Denotes area not surveyed Approved Abbreviations RA - Radiation Area HRA - High Radiation Area CA - Contamination Area					
For Beam Enclosure Entry Surveys ☒ Full survey, all areas posted ☐ Partial survey with continuous surveillance ☐ Partial survey with exclusion zone(s) posted Comments:					
Performed By (Print): <u>Stephen Kennel</u>	Date: <u>10/20/21</u>	Crew Chief Review (Print): <u>S. Frierson</u>	Date: <u>10/20/21</u>	RCD Review (Print):	Date:
Sign: <u>[Signature]</u>	Time:	Sign: <u>[Signature]</u>	Time:	Sign:	

BSY 9/29/21 70 uA 5 pass

HPF-OPS-011.a	Rev: 0	05/06/2016	RADIOLOGICAL SURVEY FORM		Page 1 of 1		
Location BSY		Accelerator Operating Conditions SPASS 70 uAMP		Instrument: <u>LUDLUM 79</u> Serial #: <u>25018480</u> Calibration Due: <u>12/30/21</u>		Survey Number NA	
Reason for Survey: <u>Initial Entry Survey</u>							
LEGEND All readings in mR/hr whole body (unless annotated otherwise) --- Denotes posted area (R) Denotes smear location (refer to page 2 for results) — Contact dose rate — Whole Body dose rate — Item description ▨ Denotes area not surveyed Approved Abbreviations RA – Radiation Area HRA – High Radiation Area CA – Contamination Area							
For Beam Enclosure Entry Surveys ☒ Full survey, all areas posted ☐ Partial survey with continuous surveillance ☐ Partial survey with exclusion zone(s) posted Comments:							
Performed By (Print): <u>ZACH GRANT</u> Sign: <u>[Signature]</u>		Date: <u>9/29/21</u> Time: <u>1:00</u>		Crew Chief Review (Print): <u>Michael Aiken</u> Sign: <u>[Signature]</u>		Date: <u>9/29/21</u> Time: <u>1:00</u>	
				RCD Review (Print): Sign:		Date:	

BSY 9/20/20 30 uA 1 pass

HPR-OPS-011.a		Rev: 0	05/06/2016	RADIATION CONTROL DEPARTMENT RADIOLOGICAL SURVEY FORM		Page 1 of 1	
Location BSY		Accelerator Operating Conditions 30 uAmp 1st Pass		Instrument: <u>LD 2000 79</u> Serial #: <u>25018159</u> Calibration Due: <u>1/21/21</u>		Survey Number NA	
						RWP 2040-50 02	
Reason for Survey: <u>Initial Entry</u>							
LEGEND All readings in mR/hr whole body (unless annotated otherwise) --- Denotes posted area ⊕ Denotes smear location (refer to page 2 for results) □ Contact dose rate □ Whole Body dose rate □ Item description ▨ Denotes area not surveyed Approved Abbreviations RA - Radiation Area HRA - High Radiation Area CA - Contamination Area							
For Beam Enclosure Entry Surveys ☒ Full survey, all areas posted ☐ Partial survey with continuous surveillance ☐ Partial survey with exclusion zone(s) posted Comments:							
Performed By (Print): <u>ZACH BRUNY</u>		Date: <u>9/21/20</u>	Crew Chief Review (Print): <u>Lester Richardson</u>		Date: <u>9/21/20</u>	RCD Review (Print):	
Time: <u>14:57</u>		Time: <u>14:57</u>		Sign:		Date:	

BSY 8/4/20 35 uA 5 pass

HPF-OPS-011.a	Rev: 0	05/06/2016	RADIOLOGICAL SURVEY FORM	
Location BSY	Accelerator Operating Conditions 35 uA 5 PASS	Instrument: Ludlum 79 Serial #: 25018459 Calibration Due: 11/24/21	Survey Number N/A	RWP 2000-5002

Reason for Survey: TROPICAL STORM

LEGEND
All readings in mR/hr whole body
(unless annotated otherwise)

--- Denotes posted area

Denotes smear location
(refer to page 2 for results)

□ Contact dose rate
□ Whole Body dose rate
□ Item description

▨ Denotes area not surveyed

Approved Abbreviations
RA - Radiation Area
HRA - High Radiation Area
CA - Contamination Area

For Beam Enclosure Entry Surveys

☒ Full survey, all areas posted

☐ Partial survey with continuous surveillance

☐ Partial survey with exclusion zone(s) posted

Comments:

South Linac Gate

BSY Dump

LOCKED

RA

HRA

CA

Hall C Shield Wall

Hall B Shield Wall

Hall A Shield Wall

Performed By (Print): Adam Hartberger	Date: 8/4/20	Crew Chief Review (Print): S. Frierson	Date: 08/04/20	RCD Review (Print):	Date:
Sign:	Time: 1222	Sign:	Time: 1341	Sign:	

BSY 3/24/20 150 uA pass 1

HPF-OPS-011.a	Rev: 0	05/06/2016	RADIATION CONTROL DEPARTMENT RADIOLOGICAL SURVEY FORM		Page <u>1</u> of <u>1</u>
Location BSY		Accelerator Operating Conditions 150 uA CW to HTA		Instrument: <u>Ludlum 7B</u> Serial #: <u>257666</u> Calibration Due: <u>9/11/20</u>	Survey Number <u>N/A</u> RWP <u>2020-S002</u>
Reason for Survey: <u>S/D FOR MEDCON-6</u>					
LEGEND All readings in mR/hr whole body (unless annotated otherwise) --- Denotes posted area # Denotes smear location (refer to page 2 for results) Contact dose rate Whole Body dose rate Item description Denotes area not surveyed					
Approved Abbreviations RA - Radiation Area HRA - High Radiation Area CA - Contamination Area					
For Beam Enclosure Entry Surveys ☒ Full survey, all areas posted ☐ Partial survey with continuous surveillance ☐ Partial survey with exclusion zone(s) posted Comments:					
Performed By (Print): STAPHANI ECHOVERIA	Date: 3/24/20	Crew Chief Review (Print): S. Fris...	Date: 03/24/2020	RCD Review (Print):	Date:
Sign:	Time:	Sign:	Time:	Sign:	

[illegible]

BSY 2019 skipped as above typical

BSY 5/6/18 80 uA CW

HPF-OPS-011.a	Rev: 0	05/06/2016	RADIOLOGICAL SURVEY FORM		Page 01
Location BSY	Accelerator Operating Conditions HB 50 nA CW HA: 22.5 uA HC: 60 uA		Instrument: 6130 RDS Serial #: 132113 Calibration Due: 5/17/18	Survey Number NIA	RWP 2018-2002
Reason for Survey: Restricted					
LEGEND All readings in mR/hr whole body (unless annotated otherwise) --- Denotes posted area Ⓡ Denotes smear location (refer to page 2 for results) ☐ Contact dose rate ☐ Whole Body dose rate ☐ Item description ▨ Denotes area not surveyed Approved Abbreviations RA - Radiation Area HRA - High Radiation Area CA - Contamination Area					
For Beam Enclosure Entry Surveys ☒ Full survey, all areas posted ☐ Partial survey with continuous surveillance ☐ Partial survey with exclusion zone(s) posted Comments:					
Performed By (Print): Adam H. Johnson	Stephany Echoviria	Date: 5/6/18	Crew Chief Review (Print): S. Frierson	Date: 05/06/18	RCD Review (Print):
					Date:

BSY 4/10/18 80 uA CW

RADIOLOGICAL SURVEY FORM				
Location BSY	Accelerator Operating Conditions ~22 uA HA ~60 uA HC ~50 uA HB 5 PASS	Instrument: <u>Lincoln 78</u> Serial #: <u>257666</u> Calibration Due: <u>7/3/18</u>	Survey Number <u>N/A</u>	RWP <u>2018-5007</u>
Reason for Survey: <u>CONTAINED ACCESS</u>				

LEGEND

All readings in mR/hr whole body (unless annotated otherwise)

--- Denotes posted area

Denotes smear location (refer to page 2 for results)

□ Contact dose rate
□ Whole Body dose rate
□ Item description

▨ Denotes area not surveyed

Approved Abbreviations
RA - Radiation Area
HRA - High Radiation Area
CA - Contamination Area

For Beam Enclosure Entry Surveys	
☒ Full survey, all areas posted	
☐ Partial survey with continuous surveillance	
☐ Partial survey with exclusion zone(s) posted	
Comments:	

Performed By (Print): <u>ADAM HARTJENSEN</u>	Date: <u>4/10/18</u>	Crew Chief Review (Print): <u>DENNIS TURNER</u>	Date: <u>2018-04-10</u>	RCD Review (Print):	Date:
Sign: <u>[Signature]</u>	Time:	Sign: <u>[Signature]</u>	Time:	Sign:	Time:

BSY 4/3/18 40 uA CW

HPF-OPS-011.a		Rev: 0	05/06/2016	RADIOLOGICAL SURVEY FORM	Page 1 of 1	
Location BSY		Accelerator Operating Conditions SS NA HC S PASS 22 NA HA 20 NA HB		Instrument: 6150 AD 5 Serial #: 132113 Calibration Due: 5/17/18	Survey Number N/A	RWP 2018-3002
Reason for Survey: Controlled Access for Maintenance						
LEGEND All readings in mR/hr whole body (unless annotated otherwise) - - - Denotes posted area (B) Denotes smear location (refer to page 2 for results) Contact dose rate Whole Body dose rate Item description [Hatched Box] Denotes area not surveyed Approved Abbreviations RA - Radiation Area HRA - High Radiation Area CA - Contamination Area For Beam Enclosure Entry Surveys ☒ Full survey, all areas posted ☐ Partial survey with continuous surveillance ☐ Partial survey with exclusion zone(s) posted Comments: <i>N A</i>						
Performed By (Print): <i>Stephen Kennell</i>		Date: 4/3/18	Crew Chief Review (Print): <i>Amy Lane</i>	Date: April 3, 2018	RCD Review (Print):	Date:

BSY 12/8/17 3C15 4 uA tune initial entry 10:51

HPF-SUR-001	Rev: 4	07/16/2012	RADIATION CONTROL DEPARTMENT RADIOLOGICAL SURVEY FORM		Page 1 of 1
Location BSY	Accelerator Operating Conditions 4 uA TUNE	Instrument: FH40G Serial #: 10585 Calibration Due: 4/9/18	Survey Number	RWP 2017 - SOL3	
Reason for Survey: CHECK 3C15 & SURROUNDING AREA					

LEGEND

All readings in mR/hr whole body
(unless annotated otherwise)

--- Denotes posted area

Denotes smear location
(refer to page 2 for results)

□ Contact dose rate
□ Whole Body dose rate
□ Item description

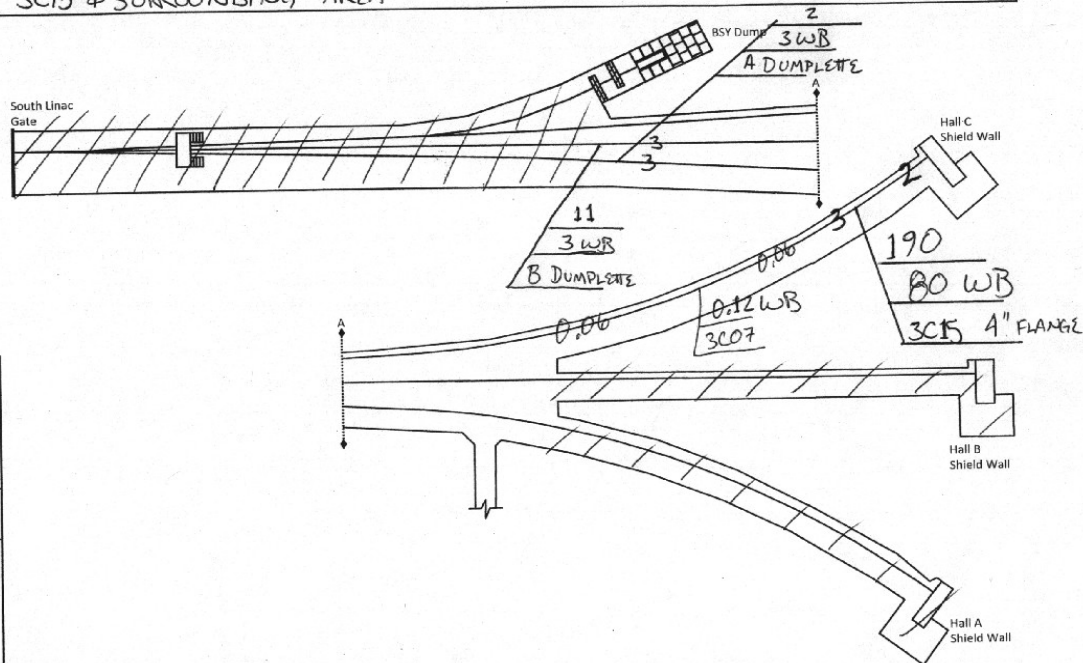


Denotes area not surveyed

Approved Abbreviations

RA - Radiation Area
HRA - High Radiation Area
CA - Contamination Area

For Beam Enclosure Entry Surveys	
☐	Full survey, all areas posted
☒	Partial survey with continuous surveillance
☐	Partial survey with exclusion zone(s) posted
Comments:	



Performed By (Print): M. MERZ	Date: 2017 DEC 08	Crew Chief Review (Print): J. C. CARLSON	Date: 12/08/2017	RCD Review (Print):	Date:
Sign: [Signature]	Time: 10:51	Sign: [Signature]	Time: 11:55	Sign:	

Bellows fell off support so there was no clear path beyond 3C15

BSY 12/8/17 3C15 4 uA tune Full survey 11:20

HPF-SUR-001	Rev: 4	07/10/2012	RADIOLOGICAL SURVEY FORM			
Location BSY	Accelerator Operating Conditions TUNE BEAM 2 uA		Instrument: AD 615B Serial #: 132119 Calibration Due: 5/10/17	Survey Number N/A	RWP 2017 - 5002	
Reason for Survey: FULL SURVEY OF BSY						

LEGEND
All readings in mR/hr whole body (unless annotated otherwise)

--- Denotes posted area

Denotes smear location (refer to page 2 for results)

□ Contact dose rate
□ Whole Body dose rate
□ Item description

▨ Denotes area not surveyed

Approved Abbreviations
RA - Radiation Area
HRA - High Radiation Area
CA - Contamination Area

For Beam Enclosure Entry Surveys

☒ Full survey, all areas posted

☐ Partial survey with continuous surveillance

☐ Partial survey with exclusion zone(s) posted

Comments:
* WALK-THRU PERMITTED @ 3C15
** RA - RWP POSTED

Performed By (Print): DAVID HAMLETTE	Date: 12/8/17	Crew Chief Review (Print): L.T. CARLINO	Date: 12/10/2017	RCD Review (Print):	Date:
Sign: [Signature]	Time:	Sign: [Signature]	Time: 1224	Sign:	