

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 8uAmp, Tune Beam	Instrument: <u>LUDLUM 79</u> Serial #: <u>2501859</u> Calibration Due: <u>9/10/23</u>	Survey Number N/A	RWP 2023-SOD2
Reason for Survey: INITIAL ENTRY				
<b>LEGEND</b> All readings in mR/hr whole body (unless annotated otherwise) <ul style="list-style-type: none"> <li>- - - Denotes posted area</li> <li>Ⓐ Denotes smear location (refer to page 2 for results)</li> <li>— Contact dose rate</li> <li>— Whole Body dose rate</li> <li>Item description</li> <li>□ Denotes area not surveyed</li> </ul>				
<p><b>Approved Abbreviations</b></p> <ul style="list-style-type: none"> <li>RA – Radiation Area</li> <li>HRA – High Radiation Area</li> <li>CA – Contamination Area</li> </ul> <p><b>For Beam Enclosure Entry Surveys</b></p> <p><input checked="" type="checkbox"/> Full survey, all areas posted</p> <p><input type="checkbox"/> Partial survey with continuous surveillance</p> <p><input type="checkbox"/> Partial survey with exclusion zone(s) posted</p> <p><b>Comments:</b></p>				
Performed By (Print): <u>Melissa Schake/Aldaisia Donald</u>	Date: <u>9/5/23</u>	Crew Chief Review (Print): <u>MGRZ</u>	Date: <u>2023</u> <u>SEPT 5</u>	RCD Review (Print):
Date				

# SL 9/6/23 ~60 uA CW beam VBV3A19

Location <b>SOUTH LINAC</b>	Accelerator Operating Conditions <b>~60 uA + Hc / 45 uA to HA / 1 uA to HPS</b>	Instrument: <u>Ludlum 79</u> Serial #: <u>25018480</u> Calibration Due: <u>6/1/23</u>	Survey Number <b>NA</b>	RWP <b>2023-S002</b>
Reason for Survey: Initial Entry				
<b>LEGEND</b> 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				
<b>Approved Abbreviations</b> RA - Radiation Area HRA - High Radiation Area CA - Contamination Area				
<b>For Beam Enclosure Entry Surveys</b> <p><input checked="" type="checkbox"/> Full survey, all areas posted</p> <p><input type="checkbox"/> Partial survey with continuous surveillance</p> <p><input type="checkbox"/> Partial survey with exclusion zone(s) posted</p> <p>Comments:</p>				
Performed By (Print): <u>Melissa Schaefer / Adelaisia Donald</u>		Date: <u>3/6/23</u>	Crew Chief Review (Print): <u>LT CARL H D</u>	Date: <u>3/6/2023</u>
			RCD Review (Print): <u>DAVID HARALILLE</u>	Date

# SL 2/6/23 85 uA CW

Location <b>SOUTH LINAC</b>	Accelerator Operating Conditions 45 uA, 4 pass HMA 40 uA, 5 pass HMIC	Instrument: <u>Ludlum 78</u> Serial #: <u>322329</u> Calibration Due: <u>6/11/23</u>	Survey Number <u>NA</u>	RWP <u>2023-5002</u>										
Reason for Survey: Initial Entry														
<b>LEGEND</b> All readings in mR/hr whole body (unless annotated otherwise) - - - Denotes posted area (①) Denotes smear location (refer to page 2 for results) Contact dose rate Whole Body dose rate Item description □ Denotes area not surveyed														
<p>Approved Abbreviations          RA - Radiation Area          HRA - High Radiation Area          CA - Contamination Area</p> <table border="1"> <tr> <td colspan="2">For Beam Enclosure Entry Surveys</td> </tr> <tr> <td colspan="2"><input checked="" type="checkbox"/> Full survey, all areas posted</td> </tr> <tr> <td colspan="2"><input type="checkbox"/> Partial survey with continuous surveillance</td> </tr> <tr> <td colspan="2"><input type="checkbox"/> Partial survey with exclusion zone(s) posted</td> </tr> <tr> <td colspan="2">Comments: * denotes dose rate beneath cyanide</td> </tr> </table> <p>Performed By (Print): <u>Stephen Venelle / Dave Hamlett</u> Date: <u>2/6/23</u> Crew Chief Review (Print): <u>LZ CARLSON</u> Date: <u>2/6/2023</u> RCD Review (Print): _____ Date: _____</p>					For Beam Enclosure Entry Surveys		<input checked="" type="checkbox"/> Full survey, all areas posted		<input type="checkbox"/> Partial survey with continuous surveillance		<input type="checkbox"/> Partial survey with exclusion zone(s) posted		Comments: * denotes dose rate beneath cyanide	
For Beam Enclosure Entry Surveys														
<input checked="" type="checkbox"/> Full survey, all areas posted														
<input type="checkbox"/> Partial survey with continuous surveillance														
<input type="checkbox"/> Partial survey with exclusion zone(s) posted														
Comments: * denotes dose rate beneath cyanide														

# NL 2/6/23 85 uA CS

Location <b>NORTH LINAC</b>	Accelerator Operating Conditions 4 Pass Hall A 45 uAmp, 5 Pass Hall C 40 uAmp	Instrument: <b>LUDLUM 78</b> Serial #: <b>251666</b> Calibration Due: <b>7/25/23</b>	Survey Number <b>N/A</b>	RWP <b>2023-S002</b>
Reason for Survey: <b>INITIAL ENTRY</b>				
<b>LEGEND</b> 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 <b>Approved Abbreviations</b> RA - Radiation Area HRA - High Radiation Area CA - Contamination Area				
<b>For Beam Enclosure Entry Surveys</b> <input checked="" type="checkbox"/> Full survey, all areas posted <input type="checkbox"/> Partial survey with continuous surveillance <input type="checkbox"/> Partial survey with exclusion zone(s) posted <b>Comments:</b> <p>Performed By (Print): <b>Adam Hetherington/Adriana Donald</b> Date: <b>2/6/23</b> Crew Chief Review (Print): <b>JZ CARBONE</b> Date: <b>2/06/2023</b> RCD Review (Print): _____ Date: _____</p>				

# NL 2/1/23 45 uA CW

Location <b>NORTH LINAC</b>	Accelerator Operating Conditions <b>45uA Spass</b>	Instrument: <u>Ludlum 7B</u> Serial #: <u>257666</u> Calibration Due: <u>7/15/23</u>	Survey Number <b>NA</b>	RWP <b>2023-5002</b>
<p>Reason for Survey: Initial Entry</p> <p><b>LEGEND</b>          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       </p> <p><b>Approved Abbreviations</b>          RA - Radiation Area          HRA - High Radiation Area          CA - Contamination Area       </p> <p><b>For Beam Enclosure Entry Surveys</b></p> <p><input checked="" type="checkbox"/> Full survey, all areas posted</p> <p><input type="checkbox"/> Partial survey with continuous surveillance</p> <p><input type="checkbox"/> Partial survey with exclusion zone(s) posted</p> <p>Comments:</p>				
Performed By (Print): <i>Melissa Schawke / Steve Kennell</i>	Date: <i>01/11/23</i>	Crew Chief Review (Print): <i>CHARIS HUMPHREY</i>	Date: <i>02/01/2023</i>	RCD Review (Print): <i>Gian</i>

SL 2/1/23 45 uA CW

Location <b>SOUTH LINAC</b>	Accelerator Operating Conditions <b>45 uAmp 5 pass</b>	Instrument: <b>LUDLUM 10</b> Serial #: <b>322829</b> Calibration Due: <b>01/23</b>	Survey Number <b>NA</b>	Date <b>2023-S002</b>						
Reason for Survey: <b>INITIAL ENTRY</b>										
<b>LEGEND</b> 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	<p><b>Approved Abbreviations</b>          RA - Radiation Area          HRA - High Radiation Area          CA - Contamination Area</p> <table border="1"> <tr> <td colspan="2"><b>For Beam Enclosure Entry Surveys</b></td> </tr> <tr> <td colspan="2"> <input checked="" type="checkbox"/> Full survey, all areas posted  <input type="checkbox"/> Partial survey with continuous surveillance  <input type="checkbox"/> Partial survey with exclusion zone(s) posted             </td> </tr> <tr> <td colspan="2">Comments:</td> </tr> </table> <p>Performed By (Print): <b>Zach Griswold / Alaysia Donald</b> Date: <b>2/1/23</b> Crew Chief Review (Print): <b>Circus Humphrey</b> Date: <b>02/01/2023</b> RCD Review (Print):</p>				<b>For Beam Enclosure Entry Surveys</b>		<input checked="" type="checkbox"/> Full survey, all areas posted <input type="checkbox"/> Partial survey with continuous surveillance <input type="checkbox"/> Partial survey with exclusion zone(s) posted		Comments:	
<b>For Beam Enclosure Entry Surveys</b>										
<input checked="" type="checkbox"/> Full survey, all areas posted <input type="checkbox"/> Partial survey with continuous surveillance <input type="checkbox"/> Partial survey with exclusion zone(s) posted										
Comments:										

# SL 1/20/23 60 uA CW

Location <b>SOUTH LINAC</b>	Accelerator Operating Conditions $\sim 60 \mu\text{A}$ TO AC / 5 PASS	Instrument: <u>LUPUM 78</u> Serial #: <u>322320</u> Calibration Due: <u>5/2/23</u>	Survey Number <u>N/A</u>	RWP
Reason for Survey: <u>TROUBLE SHOOT 2L08 INSULATING VACUUM</u>				
<b>LEGEND</b> 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				
<b>Approved Abbreviations</b> RA - Radiation Area HRA - High Radiation Area CA - Contamination Area				
<b>For Beam Enclosure Entry Surveys</b> <input checked="" type="checkbox"/> Full survey, all areas posted <input type="checkbox"/> Partial survey with continuous surveillance <input type="checkbox"/> Partial survey with exclusion zone(s) posted				
<b>Comments:</b> <u>*LEAK @ BEAM DUMP FILTER</u>				
Performed By (Print): <u>DAVID HAMLENTE</u>	Date: <u>1/20/23</u>	Crew Chief Review (Print): <u>CHRIS HUMPHREY</u>	Date: <u>01/20/2023</u>	RCD Review (Print): Sign

# SL 1/18/23 40 uA CW

Location <b>SOUTH LINAC</b>	Accelerator Operating Conditions <b>40 <math>\mu</math>A</b>	Instrument: <b>Ludlum 78</b> Serial #: <b>322329</b> Calibration Due: <b>6/1/23</b>	Survey Number <b>NA</b>	RWP <b>2023-S002</b>
Reason for Survey: <b>Initial Entry</b>				
<b>LEGEND</b> All readings in mR/hr whole body (unless annotated otherwise) <ul style="list-style-type: none"> <li>--- Denotes posted area</li> <li># Denotes smear location (refer to page 2 for results)</li> <li>Contact dose rate</li> <li>Whole Body dose rate</li> <li>Item description</li> <li>□ Denotes area not surveyed</li> </ul>				
<b>Approved Abbreviations</b> RA - Radiation Area HRA - High Radiation Area CA - Contamination Area				
<b>For Beam Enclosure Entry Surveys</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Full survey, all areas posted</li> <li><input type="checkbox"/> Partial survey with continuous surveillance</li> <li><input type="checkbox"/> Partial survey with exclusion zone(s) posted</li> </ul> <p>Comments:</p>				
Performed By (Print): <b>Aldara Donald/Melissa Schake</b> Date: <b>1/18/23</b> Crew Chief Review (Print): <b>Chels Humanity</b> Date: <b>01/18/2023</b> RCD Review (Print): _____ Date: _____				

NL 1/18/23 40 uA

Location NORTH LINAC	Accelerator Operating Conditions 400uA, 5 pass	Instrument: Ludlum 78 Serial #: 257666 Calibration Due: 10/7/23	Survey Number NA	RWP 2023-5002
Reason for Survey: Initial Entry For Maintenance Day				
<b>LEGEND</b> 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				
<b>Approved Abbreviations</b> RA - Radiation Area HRA - High Radiation Area CA - Contamination Area				
<b>For Beam Enclosure Entry Surveys</b>				
<input checked="" type="checkbox"/> Full survey, all areas posted				
<input type="checkbox"/> Partial survey with continuous surveillance				
<input type="checkbox"/> Partial survey with exclusion zone(s) posted				
<b>Comments:</b>				
Performed By (Print): Steve Kornell / ZACH Brunt		Date: 11/18/23	Crew Chief Review (Print): CHRIS Amphrey	Date: 11/18/23
				RCD Review (Print):
				Date

# SL 9/30/22 6 nA?

Location <b>SOUTH LINAC</b>	Accelerator Operating Conditions <b>6 nA / CW</b>	Instrument: <u>LUDLUM 78</u> Serial #: <u>922 520</u> Calibration Due: <u>11/9/22</u>	Survey Number <b>N/A</b>	KW# <b>2022 - 5002</b>
Reason for Survey: <b>RESTRICTED FOR LOW FLUSH</b>				
<b>LEGEND</b> All readings in mR/hr whole body (unless annotated otherwise) <ul style="list-style-type: none"> <li>- - - Denotes posted area</li> <li>① Denotes smear location (refer to page 2 for results)</li> <li>— Contact dose rate</li> <li>— Whole Body dose rate</li> <li>— Item description</li> <li>□ Denotes area not surveyed</li> </ul>				
<p><b>Approved Abbreviations</b></p> <p>RA - Radiation Area HRA - High Radiation Area CA - Contamination Area</p> <p><b>For Beam Enclosure Entry Surveys</b></p> <p><input checked="" type="checkbox"/> Full survey, all areas posted</p> <p><input type="checkbox"/> Partial survey with continuous surveillance</p> <p><input type="checkbox"/> Partial survey with exclusion zone(s) posted</p> <p><b>Comments:</b> <b>N/A</b></p>				
Performed By (Print): <u>DAVID HAMILTON</u>	Date: <u>9/30/22</u>	Crew Chief Review (Print): <u>ERIC FORMAN</u>	Date: <u>Sep 30, 2022</u> Time: <u>Sign</u>	RCD Review (Print): <b>Date</b>

# SL 7/14/22 50 uA CW

Location <b>SOUTH LINAC</b>	Accelerator Operating Conditions <b>50 <math>\mu</math>A 5 pass</b>	Instrument: <u>Ludlum 78</u> Serial #: <u>322329</u> Calibration Due: <u>12/16/22</u>	Survey Number <u>NA</u>	RWP <u>2022-S002</u>
Reason for Survey: <u>Initial entry, beam loss investigation</u>				
<b>LEGEND</b> All readings in mR/hr whole body (unless annotated otherwise) <ul style="list-style-type: none"> <li>--- Denotes posted area</li> <li>Ⓐ Denotes smear location (refer to page 2 for results)</li> <li>— Contact dose rate</li> <li>— Whole Body dose rate</li> <li>Item description</li> <li>□ Denotes area not surveyed</li> </ul>				
<b>Approved Abbreviations</b> RA - Radiation Area HRA - High Radiation Area CA - Contamination Area				
<b>For Beam Enclosure Entry Surveys</b> <p><input type="checkbox"/> Full survey, all areas posted</p> <p><input checked="" type="checkbox"/> Partial survey with continuous surveillance</p> <p><input type="checkbox"/> Partial survey with exclusion zone(s) posted</p> <p>Comments: <i>Surveys near Cryomodules taken in walkway</i></p>				
Performed By (Print): <u>Adam Hartherer / Melissa Shakes</u>	Date: <u>7-14-22</u>	Crew Chief Review (Print): <u>Daniel Moser</u>	Date: <u>7/14/22</u>	RCD Review (Print): _____ Date _____

# NL 6/7/22 tune beam during setup

Location <b>NORTH LINAC</b>	Accelerator Operating Conditions Tune Beam Hw/C 5.5 Pass	Instrument: Lutecium TM Serial #: 250182480 Calibration Due: 6/14/22	Survey Number: NA	KW# 2022-5002
<p><b>Reason for Survey:</b> Initial Entry</p> <p><b>LEGEND</b>          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       </p> <p><b>Approved Abbreviations</b>          RA - Radiation Area          HRA - High Radiation Area          CA - Contamination Area       </p> <p><b>For Beam Enclosure Entry Surveys</b></p> <p><input checked="" type="checkbox"/> Full survey, all areas posted</p> <p><input type="checkbox"/> Partial survey with continuous surveillance</p> <p><input type="checkbox"/> Partial survey with exclusion zone(s) posted</p> <p><b>Comments:</b></p>				
Performed By (Print): Stephen Kenwell/Melissa Schatz	Date: 06/07/22	Crew Chief Review (Print): Chris Humphrey	Date: 06/07/22	RCD Review (Print):
			Time: 10:00 AM	Date:

# SL 6/7/22 tune beam during setup

Location <b>SOUTH LINAC</b>	Accelerator Operating Conditions 5.5 PASS TO 5000 TUNE TO HC	Instrument: <u>Lithium 7B</u> Serial #: <u>257664</u> Calibration Due: <u>6/21/22</u>	Survey Number <u>N/A</u>	RWP <u>2022-S002</u>
Reason for Survey: <u>MAINTENANCE DAY</u>				
<b>LEGEND:</b> All readings in mR/hr whole body (unless annotated otherwise) <ul style="list-style-type: none"> <li>- - - Denotes posted area</li> <li>⑧ Denotes smear location (refer to page 2 for results)</li> <li>— Contact dose rate</li> <li>— Whole Body dose rate</li> <li>Item description</li> <li>□ Denotes area not surveyed</li> </ul>				
<p>Approved Abbreviations</p> <p>RA – Radiation Area HRA – High Radiation Area CA – Contamination Area</p>				
<b>For Beam Enclosure Entry Surveys</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Full survey, all areas posted</li> <li><input type="checkbox"/> Partial survey with continuous surveillance</li> <li><input type="checkbox"/> Partial survey with exclusion zone(s) posted</li> </ul> <p>Comments: <u>* UNDER CRAYON DOUBLE</u></p>				
Performed By (Print): <u>ADAM HARTBERGER</u>	Date: <u>6/7/22</u>	Crew Chief Review (Print): <u>CHRIS HUMPHREY</u>	Date: <u>06/07/22</u>	RCD Review (Print):

# SL 2/4/22 709 uA CW

Location <b>SOUTH LINAC</b>	Accelerator Operating Conditions <b>70 uA / CW</b>	Instrument: <u>BURIN 78</u> Serial #: <u>922329</u> Calibration Due: <u>5/17/22</u>	Survey Number <u>N/A</u>	RWP <u>2022 - 5002</u>
<p>Reason for Survey: <u>REPAIRS TO 2L00</u></p> <p><b>LEGEND</b>          - - - 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       </p> <p><b>Approved Abbreviations</b>          RA - Radiation Area          HRA - High Radiation Area          CA - Contamination Area       </p> <p><b>For Beam Enclosure Entry Surveys</b></p> <p><input checked="" type="checkbox"/> Full survey, all areas posted</p> <p><input type="checkbox"/> Partial survey with continuous surveillance</p> <p><input type="checkbox"/> Partial survey with exclusion zone(s) posted</p> <p><b>Comments:</b>  <u>BARREL OVERFLOWING AT STATION 2180</u> </p>				
Performed By (Print): <u>DAVID HAMLETT</u>	Date: <u>2/3/22</u>	Crew Chief Review (Print): <u>CHRIS HUMPHREY</u>	Date: <u>02/04/2022</u>	RCD Review (Print): _____ Date: _____

# SL 1/27/22 70 uA CW

Location <b>SOUTH LINAC</b>	Accelerator Operating Conditions HC - 70 uA 3 PASS HA - 12 uA	Instrument: <u>LULLUM 79</u> Serial #: <u>25018480</u> Calibration Due: <u>6/14/22</u>	Survey Number <u>N/A</u>	RWP <u>2022-S002</u>
Reason for Survey: <u>MJH8T04 TROUBLESHOOTING</u>				
<b>LEGEND</b> 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				
<b>Approved Abbreviations</b> RA - Radiation Area HRA - High Radiation Area CA - Contamination Area				
<b>For Beam Enclosure Entry Surveys</b> <p><input checked="" type="checkbox"/> Full survey, all areas posted</p> <p><input type="checkbox"/> Partial survey with continuous surveillance</p> <p><input type="checkbox"/> Partial survey with exclusion zone(s) posted</p> <p>Comments: <i>* UNDER CAY ON DOUBLE</i></p>				
Performed By (Print): <u>ADAM HARTBERGER</u>	Date: <u>1/27/22</u>	Crew Chief Review (Print): <u>1-7-C4241ND</u>	Date: <u>1/27/22</u>	RCD Review (Print):
Date:				

NL 12/21/21 70 uA CW

# NL 10/20/21 40 uA CW

Location <b>NORTH LINAC</b>	Accelerator Operating Conditions <b>55 PASS/CW/40uA(HC)</b>	Instrument: <u>LUDLUM 79</u> Serial #: <u>2501 8459</u> Calibration Due: <u>1/26/22</u>	Survey Number <u>N/A</u>	RWP <u>2021 - 5002</u>
Reason for Survey: <u>MAINTENANCE DAY</u>				
<b>LEGEND</b> All readings in mR/hr whole body (unless annotated otherwise)				
<ul style="list-style-type: none"> <li>- - - Denotes posted area</li> <li>(#) Denotes smear location (refer to page 2 for results)</li> <li>[ ] Contact dose rate Whole Body dose rate</li> <li>— Item description</li> <li>Denotes area not surveyed</li> </ul>				
<b>Approved Abbreviations</b> RA - Radiation Area HRA - High Radiation Area CA - Contamination Area				
<b>For Beam Enclosure Entry Surveys</b> <p> <input checked="" type="checkbox"/> Full survey, all areas posted  <input type="checkbox"/> Partial survey with continuous surveillance  <input type="checkbox"/> Partial survey with exclusion zone(s) posted       </p> <p>Comments:  <i>* USE RT. CIRCUIT</i> </p>				
Performed By (Print): <u>MELISSA SULAKE / DAVID HAMLETTE</u>	Date: <u>10/20/21</u>	Crew Chief Review (Print): <u>J. Frierson</u>	Date:	RCD Review (Print):
				Date

# SL 10/20/21 40 uA CW

Location <b>SOUTH LINAC</b>	Accelerator Operating Conditions <b>40 uA 5 PASS</b>	Instrument: <u>Lindum 79</u> Serial #: <u>25018480</u> Calibration Due: <u>12/30/21</u>	Survey Number <u>N/A</u>	RWP <u>2021-S002</u>
Reason for Survey: <u>Maintenance Day</u>				
<b>LEGEND</b> 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				
<b>Approved Abbreviations</b> RA - Radiation Area HRA - High Radiation Area CA - Contamination Area				
<b>For Beam Enclosure Entry Surveys</b> <input checked="" type="checkbox"/> Full survey, all areas posted <input type="checkbox"/> Partial survey with continuous surveillance <input type="checkbox"/> Partial survey with exclusion zone(s) posted				
<b>Comments:</b> <i>* UNDER CRYOMODULE</i>				
Performed By (Print): <u>ADAM HARTZLER / ALDANIA DAWN PRINE</u>	Date: <u>10/20/21</u>	Crew Chief Review (Print): <u>S. FRIERSON</u>	Date:	RCD Review (Print):
				Date

# NL 8/2/21 5 uA tune

Location <b>NORTH LINAC</b>	Accelerator Operating Conditions # of Amp Cycles: 2500 Sweep Time Beam	Instrument: 2018459 - LIQUIDUM 79 Serial #: 25018459 Calibration Due: 1/26/22	Survey Number NA	RWP 2021-5002
Reason for Survey: <b>Maintenance Full Survey</b>				
<p><b>LEGEND</b></p> <p>All readings in mR/hr whole body (unless annotated otherwise)</p> <ul style="list-style-type: none"> <li>- - - Denotes posted area</li> <li>② Denotes smear location (refer to page 2 for results)</li> <li>Contact dose rate</li> <li>Whole Body dose rate</li> <li>Item description</li> <li>Denotes area not surveyed</li> </ul> <p><b>Approved Abbreviations</b></p> <p>RA - Radiation Area HRA - High Radiation Area CA - Contamination Area</p> <p><b>For Beam Enclosure Entry Surveys</b></p> <p><input checked="" type="checkbox"/> Full survey, all areas posted</p> <p><input type="checkbox"/> Partial survey with continuous surveillance</p> <p><input type="checkbox"/> Partial survey with exclusion zone(s) posted</p> <p><b>Comments:</b></p> <p>Performed By (Print): <b>ZACH GIANTI</b></p> <p>Date: <b>8/2/21</b></p> <p>Crew Chief Review (Print): <b>M MORZ</b></p> <p>Date: <b>2021/8/2</b></p> <p>RCD Review (Print):</p> <p>Date:</p>				

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

Location <b>NORTH LINAC</b>	Accelerator Operating Conditions 150mA TO HA / <b>SAO (ENP-OC RUN SURVEYS)</b>	Instrument: <b>LUX 666</b> Serial #: <b>257666</b> Calibration Due: <b>1/10/21</b>	N/A	2020 - <b>5002</b>
Reason for Survey: <b>SURVEYS TO RESTRICTED (Area to HP, H.R.A.)</b>				
<b>LEGEND</b> 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				
<p><b>Approved Abbreviations</b>          RA - Radiation Area          HRA - High Radiation Area          CA - Contamination Area</p> <p><b>For Beam Enclosure Entry Surveys</b></p> <p><input checked="" type="checkbox"/> Full survey, all areas posted</p> <p><input type="checkbox"/> Partial survey with continuous surveillance</p> <p><input type="checkbox"/> Partial survey with exclusion zone(s) posted</p> <p><b>Comments:</b>   WATER ON FLOOR 2A MAGNET   UNDER MOPUCE</p>				
Performed By (Print): <b>STEPHAN DELGADO / DAVID HAMILTON</b>	Date: <b>9/21/20</b>	Crew Chief Review (Print): <b>Hester Richardson</b>	Date: <b>9/21/20</b> Time: <b>11:15</b>	RCD Review (Print): Sign

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

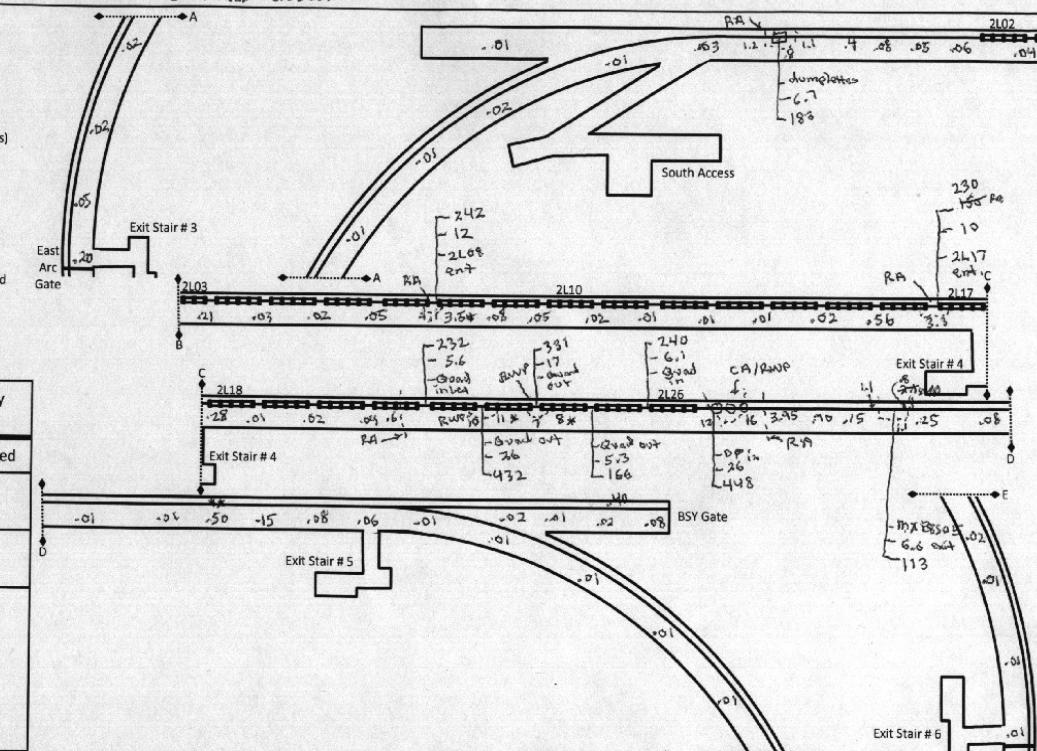
Location <b>SOUTH LINAC</b>	Accelerator Operating Conditions 30 uA 1 PASS	Instrument: <u>Ludlum 79</u> Serial #: <u>25018459</u> Calibration Due: <u>1/24/21</u>	Survey Number NA	RWP 2020-5002
Reason for Survey: Initial entry to start SAD				
<b>LEGEND</b> All readings in mR/hr whole body (unless annotated otherwise) <ul style="list-style-type: none"> <li>- - - Denotes posted area</li> <li>(#) Denotes smear location (refer to page 2 for results)</li> <li>— Contact dose rate</li> <li>— Whole Body dose rate</li> <li>— Item description</li> <li>□ Denotes area not surveyed</li> </ul> <p><b>Approved Abbreviations</b></p> <ul style="list-style-type: none"> <li>RA - Radiation Area</li> <li>HRA - High Radiation Area</li> <li>CA - Contamination Area</li> </ul>				
<b>For Beam Enclosure Entry Surveys</b> <p><input checked="" type="checkbox"/> Full survey, all areas posted</p> <p><input type="checkbox"/> Partial survey with continuous surveillance</p> <p><input type="checkbox"/> Partial survey with exclusion zone(s) posted</p> <p>Comments: CONTAMINATION SURVEYS ON SEPARATE FORM</p>				
Performed By (Print): <u>Zach (Hunt)</u> / <u>Aram Hartzberger</u>	Date: <u>9/21/20</u>	Crew Chief Review (Print): <u>Lester Richardson</u>	Date: <u>9/21/20</u>	RCD Review (Print):

# North Linac 2/5/20 ? beam

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

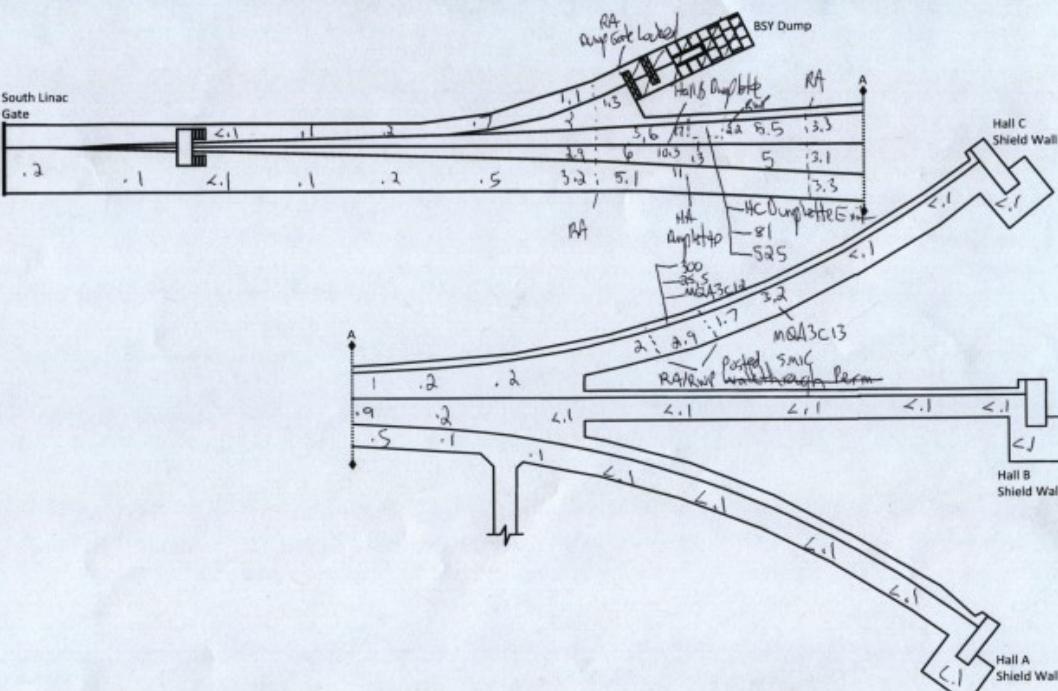
Location <b>NORTH LINAC</b>	Accelerator Operating Conditions 150 uAmp 1 pass	Instrument: <u>LUDLUM 79</u> Serial #: <u>2501 8459</u> Calibration Due: <u>2/16/20</u>	Survey Number <u>NA</u>	RWP <u>2020 - 500 Z</u>
Reason for Survey: <u>NL Full Survey</u>				
<b>LEGEND</b> All readings in mR/hr whole body (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				
<p><b>Approved Abbreviations:</b>          RA - Radiation Area          HRA - High Radiation Area          CA - Contamination Area</p>				
<b>For Beam Enclosure Entry Surveys</b> <input checked="" type="checkbox"/> Full survey, all areas posted <input type="checkbox"/> Partial survey with continuous surveillance <input type="checkbox"/> Partial survey with exclusion zone(s) posted <b>Comments:</b> ! - SURVEY TAKEN UNDER CAYMODULE				
Performed By (Print): <u>ZACH GUNN</u>	Date: <u>1/21/20</u>	Crew Chief Review (Print): <u>CHRIS HUMPHRY</u>	Date: <u>01/21/2020</u>	RCD Review (Print):
Date				

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

Location <b>SOUTH LINAC</b>	Accelerator Operating Conditions HA - 150 uA <input checked="" type="checkbox"/> pass HC - 20 uA <input checked="" type="checkbox"/> pass	Instrument: <u>Ludlum 79</u> Serial #: <u>25018459</u> Calibration Due: <u>2-16-20</u>	Survey Number <b>NIA</b>	RWP <b>2020-5002</b>
Reason for Survey: <b>Controlled access</b>				
<b>LEGEND</b> All readings in mR/h 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				
				
<b>Approved Abbreviations</b> RA - Radiation Area HRA - High Radiation Area CA - Contamination Area				
<b>For Beam Enclosure Entry Surveys</b> <p><input checked="" type="checkbox"/> Full survey, all areas posted</p> <p><input type="checkbox"/> Partial survey with continuous surveillance</p> <p><input type="checkbox"/> Partial survey with exclusion zone(s) posted</p> <p>Comments:  <input checked="" type="checkbox"/> Under organismable  <input checked="" type="checkbox"/> Deputed hot spot       </p>				
Performed By (Print): <u>R. V. van Esch</u>	Date: 1-13-20	Crew/Chief Review (Print): <u>Ken Surles-Lee</u>	Date: 1/13/20	RCD Review (Print):
Date				

# BSY 5/20/24 90 uA CW

MPP-OPS-01		rev: Z	04-04-2023	TUNAP RADIATION CONTROL DEPARTMENT RADIOPHYSICS SURVEY FORM			RWP		
Location	BSY	Accelerator Operating Conditions		Instrument:	Lid 14478	Serial #:	322329	Calibration due:	7/26/24
		90uA, 54SS						2024-SD02	
Reason for survey: SAD									
<b>LEGEND</b> 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									
<b>Abbreviations</b> RMA – radioactive material area RCA – radiologically controlled area RA – radiation area HRA – high radiation area CA – contamination area HCA – high contamination area									
<b>Beam Enclosure Entry Surveys</b> <input checked="" type="checkbox"/> Full survey, all areas posted <input type="checkbox"/> Partial survey with continuous surveillance <input type="checkbox"/> N/A									
Comments:									
Performed by (print)	Stephen Kunnell	Date	5/20/24	Crew Chief Review (print)	Lester Richardson	Date	5/20/24	RCD Review (print)	Date
Sign	NDI	Time	14:45	Sign	LPD	Time	14:45	Sign	NDI



# BSY 3/16/24 Lambertson incident

Location BSY		ACCELERATOR CONTROL DEPARTMENT RADIOPHYSICS SURVEY FORM		Page 1 of 1	
		Accelerator Operating Conditions Time Mode, SunA		Instrument: Lythium 78 Serial #: 322329 Calibration due: 7/26/24	
Reason for survey: Vacuum Repair				RWP 2024-5002	
<b>LEGEND</b> 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  <b>Abbreviations</b> RMA - radioactive material area RCA - radiologically controlled area RA - radiation area HRA - high radiation area CA - contamination area HCA - high contamination area <b>Beam Enclosure Entry Surveys</b> <input checked="" type="checkbox"/> Full survey, all areas posted <input type="checkbox"/> Partial survey with continuous surveillance <input type="checkbox"/> N/A <b>Comments:</b> <p>Stephan Koenig / Signature</p>					
<p>The floor plan illustrates the layout of the accelerator control department. It shows several curved beamlines originating from various points, such as the 'Ion Pump downstream of Lambertson' and 'Beamline downstream of Lambertson Magnet'. These beamlines converge towards the right side of the diagram. Along these paths, there are several rectangular structures representing 'Hall A Shield Wall', 'Hall B Shield Wall', and 'Hall C Shield Wall'. A 'South Linac Gate' is located at the top left. A 'BSY Dump' is shown at the top right. Handwritten annotations include 'Pooled' next to the RA 32 reading and 'Closed and locked' next to the 'Dump Gate'.</p>					
Performed by (print) Stephan Koenig / Signature		Date 3/16/24	Crew Chief Review (print) Brian Freeman	Date 3/16/24	RCD Review (print)
Time 1329		Sign	Sign	Time	

# BSY 9/24/23 8 uA tune

# 9/11/2023 8 uA tune 5pass

HPF-OPS-011.a		Rev: 0	05/06/2016	RADIOLOGICAL SURVEY FORM	
Location BSY	Accelerator Operating Conditions 8uAmp, Tune, 10.6 GeV, 5 pass		Instrument: LUDLUM 79 Serial #: 26018480 Calibration Due: 12/5/23	Survey Number NA	RWP 2023 - S002
Reason for Survey: INITIAL ENTRY					
<b>LEGEND</b> All readings in mR/hr whole body (unless annotated otherwise) <ul style="list-style-type: none"> <li>- - - Denotes posted area</li> <li>(#) Denotes smear location            (refer to page 2 for results)</li> <li>— Contact dose rate            Whole Body dose rate</li> <li>— Item description</li> <li>□ Denotes area not surveyed</li> </ul>					
<p><b>Approved Abbreviations</b></p> <p>RA – Radiation Area          HRA – High Radiation Area          CA – Contamination Area</p> <p><b>For Beam Enclosure Entry Surveys</b></p> <p><input checked="" type="checkbox"/> Full survey, all areas posted  <input type="checkbox"/> Partial survey with continuous surveillance  <input type="checkbox"/> Partial survey with exclusion zone(s) posted</p> <p><b>Comments:</b>  <del>* CONTACT RA/PB          TO ACCESS RADIATION AREAS</del></p>					
Performed By (Print): David Hamlet/Alvarista Donald Sign / / / / / / / /	Date: 9/11/23 Time: 0942	Crew Chief Review (Print): MGRZ Sign / / / / / / / /	Date: 2023 SEPT 11 Time: 953	RCD Review (Print): Sign / / / / / / / /	Date

Note elevated  
B dumplet,  
Lambertson

# BSY 3/20/23 50 uA CW 5 pass

HPF-OPS-011.a	Rev: 0	05/06/2016	RADIOLOGICAL SURVEY FORM	Page <u>1</u> of <u>1</u>
Location BSY	Accelerator Operating Conditions HB ~4 uA 5 PASS AC ~50 uA 5 PASS	Instrument: <u>Lithium 79</u> Serial #: <u>25018480</u> Calibration Due: <u>6/1/23</u>	Survey Number <u>N/A</u>	RWP <u>2023 - S002</u>
Reason for Survey: <u>START OF SAD</u>				
<b>LEGEND</b> All readings in mR/hr whole body (unless annotated otherwise)				
<ul style="list-style-type: none"> <li>- - - Denotes posted area</li> <li>(#) Denotes smear location - (refer to page 2 for results)</li> <li>Contact dose rate</li> <li>Whole Body dose rate</li> <li>Item description</li> <li>□ Denotes area not surveyed</li> </ul>				
<b>Approved Abbreviations</b> RA - Radiation Area HRA - High Radiation Area CA - Contamination Area				
<b>For Beam Enclosure Entry Surveys</b>				
<input checked="" type="checkbox"/> Full survey, all areas posted <input type="checkbox"/> Partial survey with continuous surveillance <input type="checkbox"/> Partial survey with exclusion zone(s) posted				
<b>Comments:</b>				
Performed By (Print): <u>ADAM HARTBERGER</u>		Date: <u>3/20/23</u>	Crew Chief Review (Print): <u>J. CARLIND</u>	Date: <u>3/20/2023</u>
Sign <u>ADAM HARTBERGER</u>		Time: <u>11:11</u>	Sign <u>J. CARLIND</u>	Time: <u>11:11</u>
RCD Review (Print): <u>Stephen Yennek</u>		Date: <u>3/20/23</u>	Sign <u>Stephen Yennek</u>	Date: <u>3/20/23</u>

BSY 3/1/23 70 uA CW 5 pass

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

		RADIOLOGICAL SURVEY FORM			Page <u>1</u> of <u>1</u>	
Location BSY	Accelerator Operating Conditions 40uA, SPASS	Instrument: <u>Lubitel 78</u> Serial #: <u>257666</u> Calibration Due: <u>1/27/23</u>	Survey Number NA	RWP 500Z-2023		
Reason for Survey: <u>Initial Entry</u>						
<b>LEGEND</b> All readings in mR/hr whole body (unless annotated otherwise)						
<ul style="list-style-type: none"> <li>- - - Denotes posted area</li> <li>(#) Denotes smear location            (refer to page 2 for results)</li> <li>[ ] Contact dose rate</li> <li>-- Whole Body dose rate</li> <li>[ ] Item description</li> <li>[ ] Denotes area not surveyed</li> </ul>						
<img alt="Hand-drawn floor plan of the South Linac area showing survey results. The plan includes a 'South Linac Gate' at the top left, a 'BSY Dump' area with a grid pattern, and various shield walls labeled 'Hall C Shield Wall', 'Hall B Shield Wall', and 'Hall A Shield Wall'. Survey results are written in blue ink over the plan, indicating dose rates like 1.1, 2.1, 3.1, 4.1, 5.1, 6.1, 7.1, 8.1, 9.1, 10.1, 11.1, 12.1, 13.1, 14.1, 15.1, 16.0, 17.0, 18.0, 19.0, 20.0, 21.0, 22.0, 23.0, 24.0, 25.0, 26.0, 27.0, 28.0, 29.0, 30.0, 31.0, 32.0, 33.0, 34.0, 35.0, 36.0, 37.0, 38.0, 39.0, 40.0, 41.0, 42.0, 43.0, 44.0, 45.0, 46.0, 47.0, 48.0, 49.0, 50.0, 51.0, 52.0, 53.0, 54.0, 55.0, 56.0, 57.0, 58.0, 59.0, 60.0, 61.0, 62.0, 63.0, 64.0, 65.0, 66.0, 67.0, 68.0, 69.0, 70.0, 71.0, 72.0, 73.0, 74.0, 75.0, 76.0, 77.0, 78.0, 79.0, 80.0, 81.0, 82.0, 83.0, 84.0, 85.0, 86.0, 87.0, 88.0, 89.0, 90.0, 91.0, 92.0, 93.0, 94.0, 95.0, 96.0, 97.0, 98.0, 99.0, 100.0, 101.0, 102.0, 103.0, 104.0, 105.0, 106.0, 107.0, 108.0, 109.0, 110.0, 111.0, 112.0, 113.0, 114.0, 115.0, 116.0, 117.0, 118.0, 119.0, 120.0, 121.0, 122.0, 123.0, 124.0, 125.0, 126.0, 127.0, 128.0, 129.0, 130.0, 131.0, 132.0, 133.0, 134.0, 135.0, 136.0, 137.0, 138.0, 139.0, 140.0, 141.0, 142.0, 143.0, 144.0, 145.0, 146.0, 147.0, 148.0, 149.0, 150.0, 151.0, 152.0, 153.0, 154.0, 155.0, 156.0, 157.0, 158.0, 159.0, 160.0, 161.0, 162.0, 163.0, 164.0, 165.0, 166.0, 167.0, 168.0, 169.0, 170.0, 171.0, 172.0, 173.0, 174.0, 175.0, 176.0, 177.0, 178.0, 179.0, 180.0, 181.0, 182.0, 183.0, 184.0, 185.0, 186.0, 187.0, 188.0, 189.0, 190.0, 191.0, 192.0, 193.0, 194.0, 195.0, 196.0, 197.0, 198.0, 199.0, 200.0, 201.0, 202.0, 203.0, 204.0, 205.0, 206.0, 207.0, 208.0, 209.0, 210.0, 211.0, 212.0, 213.0, 214.0, 215.0, 216.0, 217.0, 218.0, 219.0, 220.0, 221.0, 222.0, 223.0, 224.0, 225.0, 226.0, 227.0, 228.0, 229.0, 230.0, 231.0, 232.0, 233.0, 234.0, 235.0, 236.0, 237.0, 238.0, 239.0, 240.0, 241.0, 242.0, 243.0, 244.0, 245.0, 246.0, 247.0, 248.0, 249.0, 250.0, 251.0, 252.0, 253.0, 254.0, 255.0, 256.0, 257.0, 258.0, 259.0, 260.0, 261.0, 262.0, 263.0, 264.0, 265.0, 266.0, 267.0, 268.0, 269.0, 270.0, 271.0, 272.0, 273.0, 274.0, 275.0, 276.0, 277.0, 278.0, 279.0, 280.0, 281.0, 282.0, 283.0, 284.0, 285.0, 286.0, 287.0, 288.0, 289.0, 290.0, 291.0, 292.0, 293.0, 294.0, 295.0, 296.0, 297.0, 298.0, 299.0, 300.0, 301.0, 302.0, 303.0, 304.0, 305.0, 306.0, 307.0, 308.0, 309.0, 310.0, 311.0, 312.0, 313.0, 314.0, 315.0, 316.0, 317.0, 318.0, 319.0, 320.0, 321.0, 322.0, 323.0, 324.0, 325.0, 326.0, 327.0, 328.0, 329.0, 330.0, 331.0, 332.0, 333.0, 334.0, 335.0, 336.0, 337.0, 338.0, 339.0, 340.0, 341.0, 342.0, 343.0, 344.0, 345.0, 346.0, 347.0, 348.0, 349.0, 350.0, 351.0, 352.0, 353.0, 354.0, 355.0, 356.0, 357.0, 358.0, 359.0, 360.0, 361.0, 362.0, 363.0, 364.0, 365.0, 366.0, 367.0, 368.0, 369.0, 370.0, 371.0, 372.0, 373.0, 374.0, 375.0, 376.0, 377.0, 378.0, 379.0, 380.0, 381.0, 382.0, 383.0, 384.0, 385.0, 386.0, 387.0, 388.0, 389.0, 390.0, 391.0, 392.0, 393.0, 394.0, 395.0, 396.0, 397.0, 398.0, 399.0, 400.0, 401.0, 402.0, 403.0, 404.0, 405.0, 406.0, 407.0, 408.0, 409.0, 410.0, 411.0, 412.0, 413.0, 414.0, 415.0, 416.0, 417.0, 418.0, 419.0, 420.0, 421.0, 422.0, 423.0, 424.0, 425.0, 426.0, 427.0, 428.0, 429.0, 430.0, 431.0, 432.0, 433.0, 434.0, 435.0, 436.0, 437.0, 438.0, 439.0, 440.0, 441.0, 442.0, 443.0, 444.0, 445.0, 446.0, 447.0, 448.0, 449.0, 450.0, 451.0, 452.0, 453.0, 454.0, 455.0, 456.0, 457.0, 458.0, 459.0, 460.0, 461.0, 462.0, 463.0, 464.0, 465.0, 466.0, 467.0, 468.0, 469.0, 470.0, 471.0, 472.0, 473.0, 474.0, 475.0, 476.0, 477.0, 478.0, 479.0, 480.0, 481.0, 482.0, 483.0, 484.0, 485.0, 486.0, 487.0, 488.0, 489.0, 490.0, 491.0, 492.0, 493.0, 494.0, 495.0, 496.0, 497.0, 498.0, 499.0, 500.0, 501.0, 502.0, 503.0, 504.0, 505.0, 506.0, 507.0, 508.0, 509.0, 510.0, 511.0, 512.0, 513.0, 514.0, 515.0, 516.0, 517.0, 518.0, 519.0, 520.0, 521.0, 522.0, 523.0, 524.0, 525.0, 526.0, 527.0, 528.0, 529.0, 530.0, 531.0, 532.0, 533.0, 534.0, 535.0, 536.0, 537.0, 538.0, 539.0, 540.0, 541.0, 542.0, 543.0, 544.0, 545.0, 546.0, 547.0, 548.0, 549.0, 550.0, 551.0, 552.0, 553.0, 554.0, 555.0, 556.0, 557.0, 558.0, 559.0, 560.0, 561.0, 562.0, 563.0, 564.0, 565.0, 566.0, 567.0, 568.0, 569.0, 570.0, 571.0, 572.0, 573.0, 574.0, 575.0, 576.0, 577.0, 578.0, 579.0, 580.0, 581.0, 582.0, 583.0, 584.0, 585.0, 586.0, 587.0, 588.0, 589.0, 590.0, 591.0, 592.0, 593.0, 594.0, 595.0, 596.0, 597.0, 598.0, 599.0, 600.0, 601.0, 602.0, 603.0, 604.0, 605.0, 606.0, 607.0, 608.0, 609.0, 610.0, 611.0, 612.0, 613.0, 614.0, 615.0, 616.0, 617.0, 618.0, 619.0, 620.0, 621.0, 622.0, 623.0, 624.0, 625.0, 626.0, 627.0, 628.0, 629.0, 630.0, 631.0, 632.0, 633.0, 634.0, 635.0, 636.0, 637.0, 638.0, 639.0, 640.0, 641.0, 642.0, 643.0, 644.0, 645.0, 646.0, 647.0, 648.0, 649.0, 650.0, 651.0, 652.0, 653.0, 654.0, 655.0, 656.0, 657.0, 658.0, 659.0, 660.0, 661.0, 662.0, 663.0, 664.0, 665.0, 666.0, 667.0, 668.0, 669.0, 670.0, 671.0, 672.0, 673.0, 674.0, 675.0, 676.0, 677.0, 678.0, 679.0, 680.0, 681.0, 682.0, 683.0, 684.0, 685.0, 686.0, 687.0, 688.0, 689.0, 690.0, 691.0, 692.0, 693.0, 694.0, 695.0, 696.0, 697.0, 698.0, 699.0, 700.0, 701.0, 702.0, 703.0, 704.0, 705.0, 706.0, 707.0, 708.0, 709.0, 710.0, 711.0, 712.0, 713.0, 714.0, 715.0, 716.0, 717.0, 718.0, 719.0, 720.0, 721.0, 722.0, 723.0, 724.0, 725.0, 726.0, 727.0, 728.0, 729.0, 730.0, 731.0, 732.0, 733.0, 734.0, 735.0, 736.0, 737.0, 738.0, 739.0, 740.0, 741.0, 742.0, 743.0, 744.0, 745.0, 746.0, 747.0, 748.0, 749.0, 750.0, 751.0, 752.0, 753.0, 754.0, 755.0, 756.0, 757.0, 758.0, 759.0, 760.0, 761.0, 762.0, 763.0, 764.0, 765.0, 766.0, 767.0, 768.0, 769.0, 770.0, 771.0, 772.0, 773.0, 774.0, 775.0, 776.0, 777.0, 778.0, 779.0, 779.0, 780.0, 781.0, 782.0, 783.0, 784.0, 785.0, 786.0, 787.0, 788.0, 789.0, 790.0, 791.0, 792.0, 793.0, 794.0, 795.0, 796.0, 797.0, 798.0, 799.0, 800.0, 801.0, 802.0, 803.0, 804.0, 805.0, 806.0, 807.0, 808.0, 809.0, 810.0, 811.0, 812.0, 813.0, 814.0, 815.0, 816.0, 817.0, 818.0, 819.0, 820.0, 821.0, 822.0, 823.0, 824.0, 825.0, 826.0, 827.0, 828.0, 829.0, 830.0, 831.0, 832.0, 833.0, 834.0, 835.0, 836.0, 837.0, 838.0, 839.0, 840.0, 841.0, 842.0, 843.0, 844.0, 845.0, 846.0, 847.0, 848.0, 849.0, 850.0, 851.0, 852.0, 853.0, 854.0, 855.0, 856.0, 857.0, 858.0, 859.0, 860.0, 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1003.0, 1004.0, 1005.0, 1006.0, 1007.0, 1008.0, 1009.0, 1010.0, 1011.0, 1012.0, 1013.0, 1014.0, 1015.0, 1016.0, 1017.0, 1018.0, 1019.0, 1020.0, 1021.0, 1022.0, 1023.0, 1024.0, 1025.0, 1026.0, 1027.0, 1028.0, 1029.0, 1030.0, 1031.0, 1032.0, 1033.0, 1034.0, 1035.0, 1036.0, 1037.0, 1038.0, 1039.0, 1040.0, 1041.0, 1042.0, 1043.0, 1044.0, 1045.0, 1046.0, 1047.0, 1048.0, 1049.0, 1050.0, 1051.0, 1052.0, 1053.0, 1054.0, 1055.0, 1056.0, 1057.0, 1058.0, 1059.0, 1060.0, 1061.0, 1062.0, 1063.0, 1064.0, 1065.0, 1066.0, 1067.0, 1068.0, 1069.0, 1070.0, 1071.0, 1072.0, 1073.0, 1074.0, 1075.0, 1076.0, 1077.0, 1078.0, 1079.0, 1080.0, 1081.0, 1082.0, 1083.0, 1084.0, 1085.0, 1086.0, 1087.0, 1088.0, 1089.0, 1090.0, 1091.0, 1092.0, 1093.0, 1094.0, 1095.0, 1096.0, 1097.0, 1098.0, 1099.0, 1100.0, 1101.0, 1102.0, 1103.0, 1104.0, 1105.0, 1106.0, 1107.0, 1108.0, 1109.0, 1110.0, 1111.0, 1112.0, 1113.0, 1114.0, 1115.0, 1116.0, 1117.0, 1118.0, 1119.0, 1120.0, 1121.0, 1122.0, 1123.0, 1124.0, 1125.0, 1126.0, 1127.0, 1128.0, 1129.0, 1130.0, 1131.0, 1132.0, 1133.0, 1134.0, 1135.0, 1136.0, 1137.0, 1138.0, 1139.0, 1140.0, 1141.0, 1142.0, 1143.0, 1144.0, 1145.0, 1146.0, 1147.0, 1148.0, 1149.0, 1150.0, 1151.0, 1152.0, 1153.0, 1154.0, 1155.0, 1156.0, 1157.0, 1158.0, 1159.0, 1160.0, 1161.0, 1162.0, 1163.0, 1164.0, 1165.0, 1166.0, 1167.0, 1168.0, 1169.0, 1170.0, 1171.0, 1172.0, 1173.0, 1174.0, 1175.0, 1176.0, 1177.0, 1178.0, 1179.0, 1180.0, 1181.0, 1182.0, 1183.0, 1184.0, 1185.0, 1186.0, 1187.0, 1188.0, 1189.0, 1190.0, 1191.0, 1192.0, 1193.0, 1194.0, 1195.0, 1196.0, 1197.0, 1198.0, 1199.0, 1200.0, 1201.0, 1202.0, 1203.0, 1204.0, 1205.0, 1206.0, 1207.0, 1208.0, 1209.0, 1210.0, 1211.0, 1212.0, 1213.0, 1214.0, 1215.0, 1216.0, 1217.0, 1218.0, 1219.0, 1220.0, 1221.0, 1222.0, 1223.0, 1224.0, 1225.0, 1226.0, 1227.0, 1228.0, 1229.0, 12210.0, 12211.0, 12212.0, 12213.0, 12214.0, 12215.0, 12216.0, 12217.0, 12218.0, 12219.0, 12220.0, 12221.0, 12222.0, 12223.0, 12224.0, 12225.0, 12226.0, 12227.0, 12228.0, 12229.0, 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122137.0, 122138.0, 122139.0, 122140.0, 122141.0, 122142.0, 122143.0, 122144.0, 122145.0, 122146.0, 122147.0, 122148.0, 122149.0, 122150.0, 122151.0, 122152.0, 122153.0, 122154.0, 122155.0, 122156.0, 122157.0, 122158.0, 122159.0, 122160.0, 122161.0, 122162.0, 122163.0, 122164.0, 122165.0, 122166.0, 122167.0, 122168.0, 122169.0, 122170.0, 122171.0, 122172.0, 122173.0, 122174.0, 122175.0, 122176.0, 122177.0, 122178.0, 122179.0, 122180.0, 122181.0, 122182.0, 122183.0, 122184.0, 122185.0, 122186.0, 122187.0, 122188.0, 122189.0, 122190.0, 122191.0, 122192.0, 122193.0, 122194.0, 122195.0, 122196.0, 122197.0, 122198.0, 122199.0, 122200.0, 122201.0, 122202.0, 122203.0, 122204.0, 122205.0, 122206.0, 122207.0, 122208.0, 122209.0, 122210.0, 122211.0, 122212.0, 122213.0, 122214.0, 122215.0, 122216.0, 122217.0, 122218.0, 122219.0, 122220.0, 122221.0, 122222.0, 122223.0, 122224.0, 122225.0, 122226.0, 122227.0, 122228.0, 122229.0, 122230.0, 122231.0, 122232.0, 122233.0, 122234.0, 122235.0, 122236.0, 122237.0, 122238.0, 122239.0, 122240.0, 122241.0, 122242.0, 122243.0, 122244.0, 122245.0, 122246.0, 122247.0, 122248.0, 122249.0, 122250.0, 122251.0, 122252.0, 122253.0, 122254.0, 122255.0, 122256.0, 122257.0, 122258.0, 122259.0, 122260.0, 122261.0, 122262.0, 122263.0, 122264.0, 122265.0, 122266.0, 122267.0, 122268.0, 122269.0, 122270.0, 122271.0, 122272.0, 122273.0, 122274.0, 122275.0, 122276.0, 122277.0, 122278.0, 122279.0, 122280.0, 122281.0, 122282.0, 122283.0, 122284.0, 122285.0, 122286.0, 122287.0, 122288.0, 122289.0, 122290.0, 122291.0, 122292.0, 122293.0, 122294.0, 122295.0, 122296.0, 122297.0, 122298.0, 122299.0, 122300.0, 122301.0, 122302.0, 122303.0, 122304.0, 122305.0, 122306.0, 122307.0, 122308.0, 122309.0, 122310.0, 122311.0, 122312.0, 122313.0, 122314.0, 122315.0, 122316.0, 122317.0, 122318.0, 122319.0, 122320.0, 122321.0, 122322.0, 122323.0, 122324.0, 122325.0, 122326.0, 122327.0, 122328.0, 122329.0, 122330.0, 122331.0,						

# BSY 12/19/22 60 uA 5 pass

BSY-OPS-001.a	Rev. C	05/06/2016	Instrumentation, Survey, and Radiological Survey RADIOPHYSICAL SURVEY FORM	Page 1 of 1
Location <b>BSY</b>	Accelerator Operating Conditions <b>60 uA 5 pass</b>	Instrument Location <b>Location 70</b> Model # <b>1207</b> Calibration Date <b>12/19/22</b>	Survey Number <b>1/4</b>	Site ID <b>2702-5-Cycl.</b>
Reason for Survey: <b>Initial Survey</b>				
<p>BSY-001 Monitoring and shutdown (and associated otherwise)</p> <p>--- = Decontaminated areas</p> <p><input checked="" type="checkbox"/> Decontaminated surfaces radioactive surface radioactive debris item description</p> <p><input type="checkbox"/> Contaminated surfaces</p> <p>Assessed Surfaces no - no area low - high radiation area high - contamination area</p> <p>For Survey: Enclosure Survey Survey  <input checked="" type="checkbox"/> Full survey, all areas planned  <input type="checkbox"/> Partial survey with continuous surveillance  <input type="checkbox"/> Partial survey with exclusion criteria planned</p> <p>Comments:</p>				
Instrumentation Plan	Survey	New Old Survey Plan	Date	Site Number (Plan)
Alpha, Beta, Gamma, Tritium, Total	10/19/22	M. Mazz	12/19/22	1207

# BSY 11/15/22 partial to Lambertson viewer

RFF-07-3744.6		REV. D	05/06/2016	RADIOLOGICAL SURVEY FORM		Page <u>1</u> of <u>1</u>
Location BSY	Accelerator Operating Conditions 5TH PASS HALLC 60uA 3RD PASS HALLA 45uA		Instrument: <u>Teleprobe FH40</u> Serial #: <u>018125</u> Calibration Due: <u>1/20/23</u>	Survey Number <u>N/A</u>	RWP <u>2022 - S002</u>	
Reason for Survey: <u>LAMBERTSON VIEWER ADJUSTMENT</u>						
<b>LEGEND</b> 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						
<b>Approved Abbreviations</b> RA - Radiation Area HRA - High Radiation Area CA - Contamination Area						
For Beam Enclosure Entry Surveys <input type="checkbox"/> Full survey, all areas posted <input checked="" type="checkbox"/> Partial survey with continuous surveillance <input type="checkbox"/> Partial survey with exclusion zone(s) posted						
Comments: <u>EXCITED ONLY</u>						
Performed By (Print): <u>Brian Kregan</u>		Date: <u>11/15/22</u>	Crew Chief Review (Print): <u>Chris Hanney</u>	Date: <u>11/15/2022</u>	RCD Review (Print):	Date
Sign <u>D. K.</u>		Time: <u>10:21</u>	Sign <u>CH</u>	Time: <u>10:21</u>	Sign	

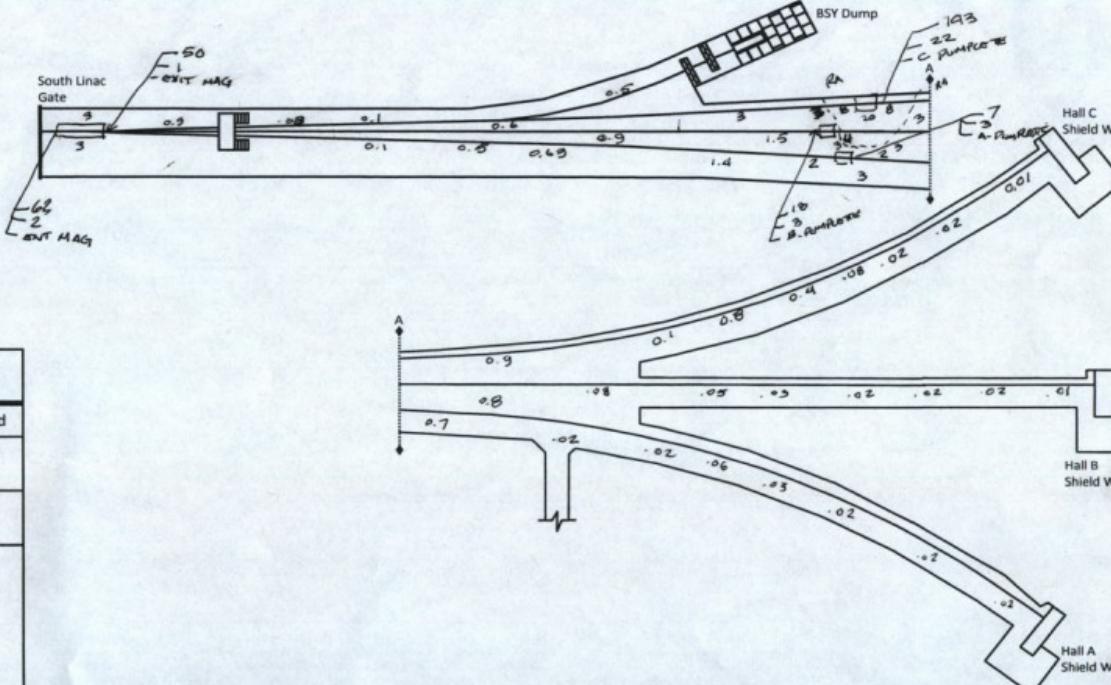
# BSY 8/5/22 partial to Lambertson viewer

HPF-OPS-011.a		Rev: 0	05/06/2016	RADIOLOGICAL SURVEY FORM		Page: 1 of 1	
Location BSY	Accelerator Operating Conditions $80 \mu\text{A} \pm 4\%$			Instrument: <u>LUDLUM 78</u> Serial #: <u>25766</u> Calibration Due: <u>1/27/22</u>	Survey Number <u>N/A</u>	RWP <u>2022 - 5002</u>	
Reason for Survey: <u>ESCORT TO LAMBERTSON CAMERA</u>							
<b>LEGEND</b> All readings in mR/hr whole body (unless annotated otherwise)							
<ul style="list-style-type: none"> <li>- - - Denotes posted area</li> <li>( ) Denotes smear location (refer to page 2 for results)</li> <li>— Contact dose rate</li> <li>— Whole Body dose rate</li> <li>Item description</li> <li>□ Denotes area not surveyed</li> </ul>							
<b>Approved Abbreviations</b> RA – Radiation Area HRA – High Radiation Area CA – Contamination Area							
For Beam Enclosure Entry Surveys		<input type="checkbox"/> Full survey, all areas posted <input checked="" type="checkbox"/> Partial survey with continuous surveillance <input type="checkbox"/> Partial survey with exclusion zone(s) posted					
<b>Comments:</b> <u>N/A</u>							
Performed By (Print): <u>DAVID HAMLETTE</u>	Date: <u>8/5/22</u>	Crew Chief Review (Print): <u>J. T. CARCINO</u>	Date: <u>8/5/2022</u>	RCD Review (Print):	Date		
Sign: <u>1</u>	Time: <u>0926</u>	Sign: <u>1</u>	Time: <u>0926</u>	Sign			

# BSY 7/20/22 70 uA CW pass 5

HPF-OPS-011.a	Rev: 0	05/06/2016	RADIATION CONT. DEPARTMENT RADIOLOGICAL SURVEY FORM	Page <u>1</u> of <u>1</u>
Location BSY	Accelerator Operating Conditions 70 uAmp CW 10.6 GeV	Instrument: <u>LUDLUM 78</u> Serial #: <u>257666</u> Calibration Due: <u>12/14/22</u>	Survey Number NJA	RWP 2022-5002
Reason for Survey: <u>INITIAL ENTRY</u>				
<b>LEGEND</b> 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				
<b>Approved Abbreviations</b> RA - Radiation Area HRA - High Radiation Area CA - Contamination Area				
<b>For Beam Enclosure Entry Surveys</b> <p><input checked="" type="checkbox"/> Full survey, all areas posted</p> <p><input type="checkbox"/> Partial survey with continuous surveillance</p> <p><input type="checkbox"/> Partial survey with exclusion zone(s) posted</p> <p>Comments:</p>				
Performed By (Print): <u>ADAM HAFNER BERGER / Zach Giunti</u> Date: <u>7-20-22</u> Crew Chief Review (Print): <u>Daniel Marin</u> Date: <u>7/20/22</u> RCD Review (Print): _____ Date: _____ Sign <u>ADT</u> / <u>ZG</u> Time: <u>0800</u> Sign <u>DM</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 <u>1</u> of <u>1</u>
Location BSY	Accelerator Operating Conditions 5000s/cw / 45 uA to Hall C		Instrument: LIPSON 79 Serial #: 25018480 Calibration Due: 12/3/22	Survey Number U/A	RWP 2022 - 5002	
Reason for Survey: MAINTENANCE DAY						
<b>LEGEND</b> 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						
						
<b>Approved Abbreviations</b> RA - Radiation Area HRA - High Radiation Area CA - Contamination Area						
<b>For Beam Enclosure Entry Surveys</b> <input checked="" type="checkbox"/> Full survey, all areas posted <input type="checkbox"/> Partial survey with continuous surveillance <input type="checkbox"/> Partial survey with exclusion zone(s) posted						
<b>Comments:</b> U/A						
Performed By (Print): <u>DAVID HAMLET</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: <u>/</u>	Time: <u>10:00</u>	Sign: <u>10:00</u>	Time: <u>10:00</u>	Sign		

# BSY 2/8/22 70 uA CW \*C12

## RADIOLOGICAL SURVEY FORM

Location BSY	Accelerator Operating Conditions 70 uAMP	Instrument: LIADLUM 79 Serial #: L501B4BD Calibration Due: 6/14/22	Survey Number NA	RWP 2022-S06Z
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

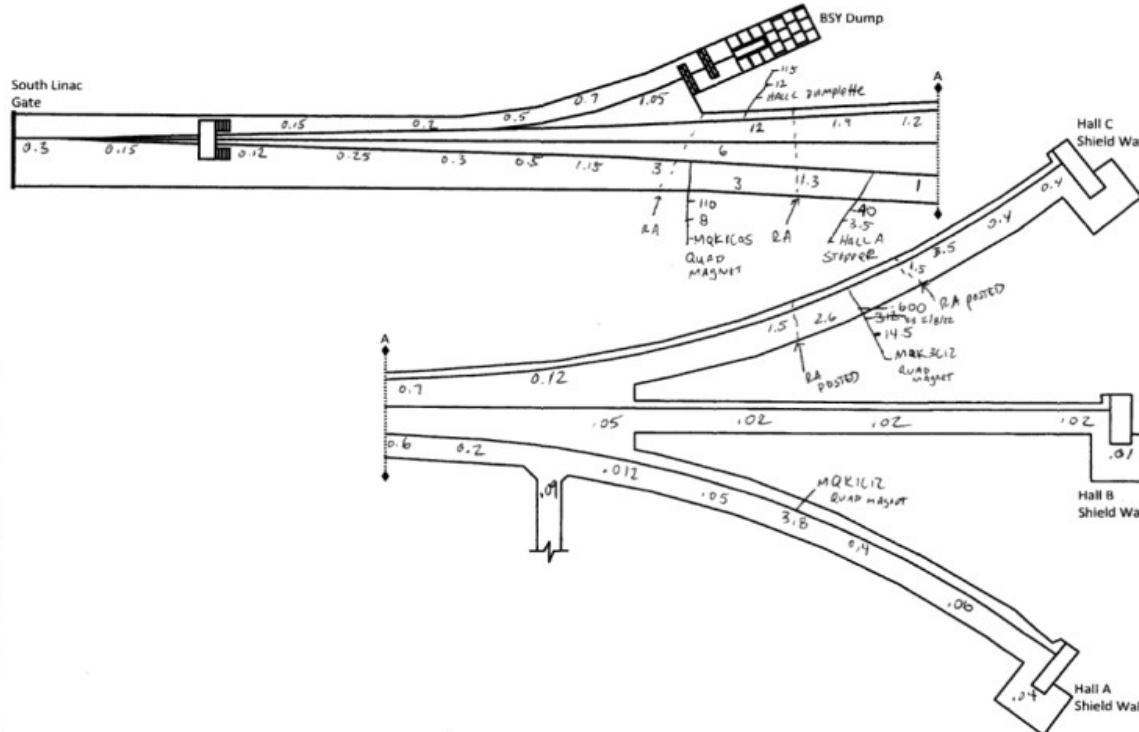
### Approved Abbreviations

RA - Radiation Area

HRA - High Radiation Area

CA - Contamination Area

For Beam Enclosure Entry Surveys	
<input checked="" type="checkbox"/> Full survey, all areas posted	
<input type="checkbox"/> Partial survey with continuous surveillance	
<input type="checkbox"/> Partial survey with exclusion zone(s) posted	
Comments:	

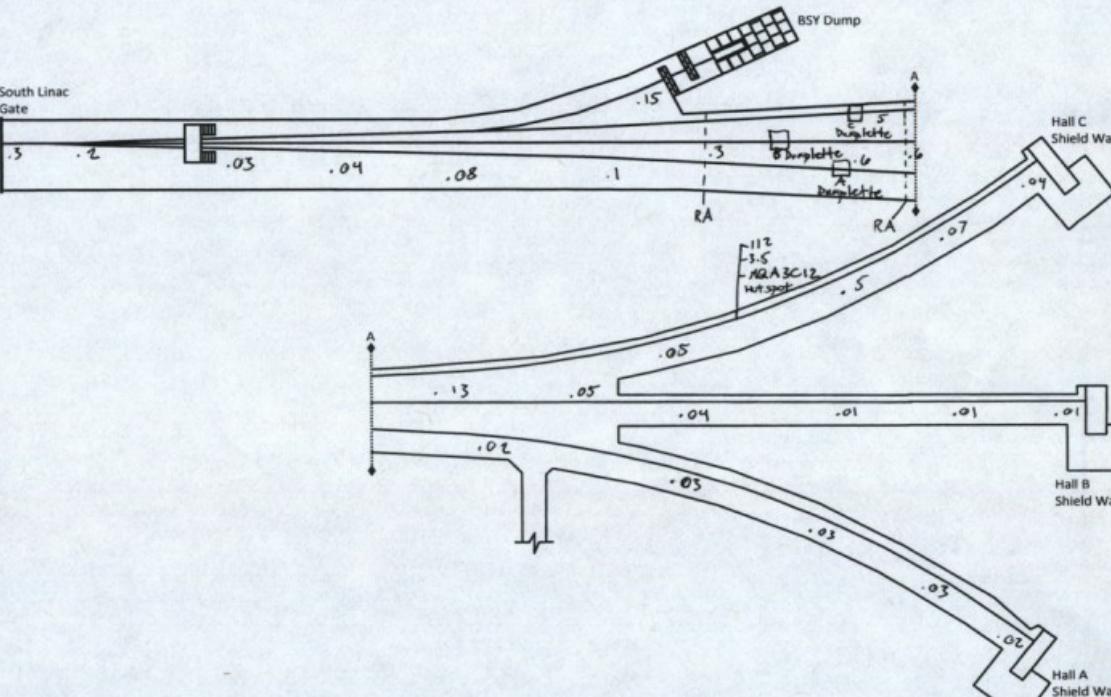


Performed By (Print): <b>ZACH GILH</b>	Date: 2/8/22	Crew Chief Review (Print): <b>M. M</b>	Date: 2022 FEB 8	RCD Review (Print):	Date
Signed: <b>Zach Gilh</b>	Time: <b>1:45</b>				

# BSY 12/21/21 70 uA

HPP-OPS-011.8		Rev. 0	05/05/2010	RADIOLOGICAL SURVEY FORM	
Location BSY	Accelerator Operating Conditions 70 uAmp	Instrument: <u>LUDIUM 78</u> Serial #: <u>322824</u> Calibration Due: <u>5/17/22</u>	Survey Number NA	RWP 2021-S002	
Reason for Survey: <u>INITIAL ENTRY</u>					
<b>LEGEND</b> 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					
<b>Approved Abbreviations</b> RA - Radiation Area HRA - High Radiation Area CA - Contamination Area					
<b>For Beam Enclosure Entry Surveys</b> <input checked="" type="checkbox"/> Full survey, all areas posted <input type="checkbox"/> Partial survey with continuous surveillance <input type="checkbox"/> Partial survey with exclusion zone(s) posted					
<b>Comments:</b>					
Performed By (Print): <u>ZACH GIUNI / STEVE KENNELL</u> Sign <u>12/21/22</u>		Date: <u>12/21/22</u>	Crew Chief Review (Print): <u>M. MORZ</u> Sign <u>12/21/22</u>	Date: <u>2021 DEC 21</u>	RCD Review (Print): Sign
		Time: <u>10:00 AM</u>		Time: <u>10:00 AM</u>	Date

BSY 11/3/21 45 uA 5 pass

HPF-OPS-011.a	Rev: 0	05/06/2016	RADIOLOGICAL SURVEY FORM	Page <u>1</u> of <u>1</u>
Location BSY	Accelerator Operating Conditions $40^{-45}$ $45\mu\text{A}$ 5 pass	Instrument: <u>LUDLUM 79</u> Serial #: <u>2501490</u> Calibration Due: <u>12/30/21</u>	Survey Number NA	RWP 2021-5002
Reason for Survey: Initial Entry Survey				
<b>LEGEND</b> 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				
				
<b>Approved Abbreviations</b> RA - Radiation Area HRA - High Radiation Area CA - Contamination Area				
<b>For Beam Enclosure Entry Surveys</b>				
<input checked="" type="checkbox"/> Full survey, all areas posted <input type="checkbox"/> Partial survey with continuous surveillance <input type="checkbox"/> Partial survey with exclusion zone(s) posted				
Comments:				
Performed By (Print): <u>Zach Giunti</u> / <u>Melissa Shabek</u>		Date: <u>11/3/21</u>	Crew Chief Review (Print): <u>Michael Aiken</u>	Date: <u>11/3/21</u>
Sign <u>10</u>		Time: <u>11:11</u>	Sign <u>11</u>	Time: <u>11:11</u>
Sign <u>12</u>		Time: <u>11:11</u>	Sign <u>13</u>	Time: <u>11:11</u>
Sign <u>14</u>		Time: <u>11:11</u>	Sign <u>15</u>	Time: <u>11:11</u>
Sign <u>16</u>		Time: <u>11:11</u>	Sign <u>17</u>	Time: <u>11:11</u>
Sign <u>18</u>		Time: <u>11:11</u>	Sign <u>19</u>	Time: <u>11:11</u>
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Sign <u>22</u>		Time: <u>11:11</u>	Sign <u>23</u>	Time: <u>11:11</u>
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Sign <u>32</u>		Time: <u>11:11</u>	Sign <u>33</u>	Time: <u>11:11</u>
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Sign <u>36</u>		Time: <u>11:11</u>	Sign <u>37</u>	Time: <u>11:11</u>
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Sign <u>84</u>		Time: <u>11:11</u>	Sign <u>85</u>	Time: <u>11:11</u>
Sign <u>86</u>		Time: <u>11:11</u>	Sign <u>87</u>	Time: <u>11:11</u>
Sign <u>88</u>		Time: <u>11:11</u>	Sign <u>89</u>	Time: <u>11:11</u>
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Sign <u>96</u>		Time: <u>11:11</u>	Sign <u>97</u>	Time: <u>11:11</u>
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Sign <u>100</u>		Time: <u>11:11</u>	Sign <u>101</u>	Time: <u>11:11</u>

BSY 10/20/21

Location		Accelerator Operating Conditions		Instrument: <u>Lydum 78</u>	Survey Number	RWP
BSY		48mA, Spass		Serial #: <u>322329</u> Calibration Due: <u>11/20/21</u>	NA	2021-5cold
Reason for Survey: Initial Entry for maintenance						
<b>LEGEND</b> 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						
<b>Approved Abbreviations</b> RA – Radiation Area HRA – High Radiation Area CA – Contamination Area						
<b>For Beam Enclosure Entry Surveys</b>						
<input checked="" type="checkbox"/> Full survey, all areas posted <input type="checkbox"/> Partial survey with continuous surveillance <input type="checkbox"/> Partial survey with exclusion zone(s) posted						
<b>Comments:</b>						
Performed By (Print): <u>Stephen Kenngott</u>		Date: <u>10/18/21</u>	Crew Chief Review (Print): <u>S. Frierson</u>		Date: <u>10/20/21</u>	RCD Review (Print): Sign _____
Sign <u>11/10/21</u>		Time: _____	Sign <u>11/10/21</u>		Time: _____	Date _____

BSY 9/29/21 70 uA 5 pass

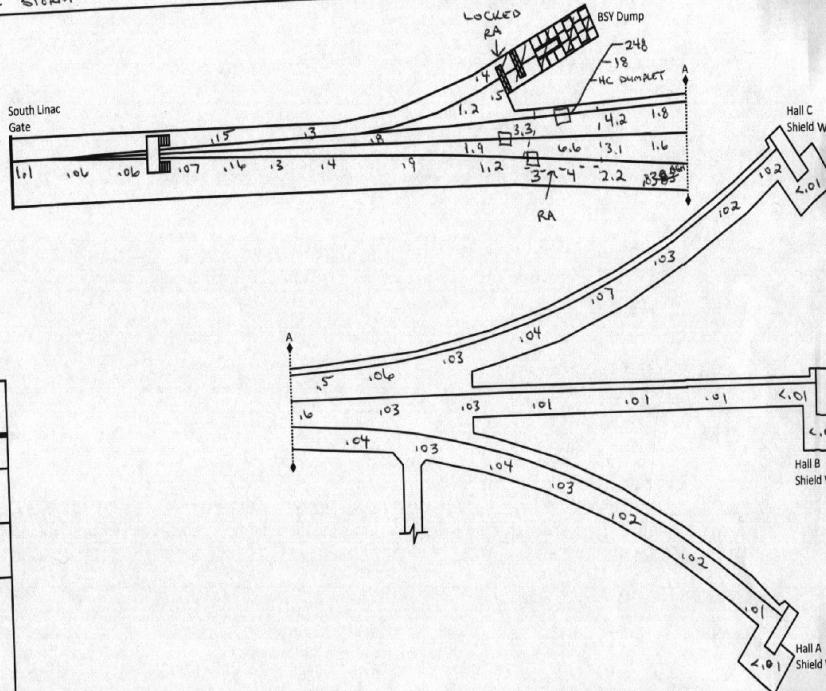
# BSY 9/20/20 30 uA 1 pass

HPF-OPS-011.a	Rev: 0	05/06/2016	RADIATION CONT. DEPARTMENT RADIOLOGICAL SURVEY FORM	Page <u>1</u> of <u>1</u>							
Location <b>BSY</b>	Accelerator Operating Conditions <b>30 uAmp 1st pass</b>		Instrument: <u>Unidux 74</u> Serial #: <u>2501859</u> Calibration Due: <u>1/21/21</u>	Survey Number <u>NA</u>	RWP <u>2020-5002</u>						
Reason for Survey: <u>Initial Entry</u>											
<b>LEGEND</b> 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											
<b>Approved Abbreviations</b> RA - Radiation Area HRA - High Radiation Area CA - Contamination Area											
<b>For Beam Enclosure Entry Surveys</b> <table border="1" style="float: right; width: 100px;"> <tr><td><input checked="" type="checkbox"/></td><td>Full survey, all areas posted</td></tr> <tr><td><input type="checkbox"/></td><td>Partial survey with continuous surveillance</td></tr> <tr><td><input type="checkbox"/></td><td>Partial survey with exclusion zone(s) posted</td></tr> </table>						<input checked="" type="checkbox"/>	Full survey, all areas posted	<input type="checkbox"/>	Partial survey with continuous surveillance	<input type="checkbox"/>	Partial survey with exclusion zone(s) posted
<input checked="" type="checkbox"/>	Full survey, all areas posted										
<input type="checkbox"/>	Partial survey with continuous surveillance										
<input type="checkbox"/>	Partial survey with exclusion zone(s) posted										
<b>Comments:</b>											
Performed By (Print): <u>Zach Gwin</u>	Date: <u>9/21/20</u>	Crew Chief Review (Print): <u>Lester Richardson</u>	Date: <u>9/21/20</u>	RCD Review (Print):	Date						
Sign <u>11</u>	Time: <u>08:31 A</u>	Sign <u>11-27</u>	Time: <u>12:27</u>	Sign							

South Linac Gate      BSY Dump      Hall C Shield Wall  
  
 Hall B Shield Wall      Hall A Shield Wall

# 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: <u>NEUTRUM 79</u> Serial #: <u>35018459</u> Calibration Due: <u>1/24/21</u>	Survey Number N/A	RWP 2020 - 5002	
Reason for Survey: <u>TROPICAL STORM</u>					
<b>LEGEND</b> All readings in mR/hr whole body (unless annotated otherwise)					
--- Denotes posted area (①) Denotes smear location (refer to page 2 for results) [ ] Contact dose rate Whole Body dose rate Item description [ ] Denotes area not surveyed					
<b>Approved Abbreviations</b> RA - Radiation Area HRA - High Radiation Area CA - Contamination Area					
<b>For Beam Enclosure Entry Surveys</b> <input checked="" type="checkbox"/> Full survey, all areas posted <input type="checkbox"/> Partial survey with continuous surveillance <input type="checkbox"/> Partial survey with exclusion zone(s) posted					
<b>Comments:</b>					
Performed By (Print): <u>ADAM HARTBERGER</u>	Date: <u>8/4/20</u>	Crew Chief Review (Print): <u>S. FRIERSON</u>	Date: <u>08/04/20</u>	RCD Review (Print):	Date
Sign <u>.....</u>	Time: <u>1222</u>	Sign <u>JF</u>	Time: <u>1341</u>	Sign	


  
 Detailed description of the floor plan:  
 - South Linac Gate: 0.1 mR/hr  
 - BSY Dump: 24.8 mR/hr (labeled 'LOCKED RA')  
 - Hall C Shield Wall: 1.02 mR/hr  
 - Hall B Shield Wall: 0.01 mR/hr  
 - Hall A Shield Wall: 0.01 mR/hr  
 - Other rooms and hallways: 0.1, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0, 1.2, 1.4, 1.5, 1.6, 1.8, 1.9, 2.2, 3.1, 3.3, 3.7, 4.2, 13.1, 16.6, 18, 24.8 mR/hr

# BSY 3/24/20 150 uA pass 1

HPF-OPS-011.a		Rev: 0	05/06/2016	RADIATION CONTROL DEPARTMENT RADIOLOGICAL SURVEY FORM		Page 1 of 1										
Location BSY	Accelerator Operating Conditions 150 uA CW TO TA		Instrument: <u>Ludlum 78</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/TD FOR MEDCON - 6</u>																
<b>LEGEND</b> <p>All readings in mR/hr whole body (unless annotated otherwise)</p> <p>--- Denotes posted area</p> <p>(#) Denotes smear location (refer to page 2 for results)</p> <p>Contact dose rate Whole Body dose rate Item description</p> <p>□ Denotes area not surveyed</p>																
<b>Approved Abbreviations</b> <p>RA - Radiation Area HRA - High Radiation Area CA - Contamination Area</p> <table border="1"> <tr> <td colspan="2">For Beam Enclosure Entry Surveys</td> </tr> <tr> <td colspan="2"><input checked="" type="checkbox"/> Full survey, all areas posted</td> </tr> <tr> <td colspan="2"><input type="checkbox"/> Partial survey with continuous surveillance</td> </tr> <tr> <td colspan="2"><input type="checkbox"/> Partial survey with exclusion zone(s) posted</td> </tr> <tr> <td colspan="2">Comments:</td> </tr> </table>							For Beam Enclosure Entry Surveys		<input checked="" type="checkbox"/> Full survey, all areas posted		<input type="checkbox"/> Partial survey with continuous surveillance		<input type="checkbox"/> Partial survey with exclusion zone(s) posted		Comments:	
For Beam Enclosure Entry Surveys																
<input checked="" type="checkbox"/> Full survey, all areas posted																
<input type="checkbox"/> Partial survey with continuous surveillance																
<input type="checkbox"/> Partial survey with exclusion zone(s) posted																
Comments:																
Performed By (Print): <u>STANLEY ECHENNEA</u>	Date: <u>3/24/20</u>	Crew Chief Review (Print): <u>S. Frierson</u>	Date: <u>03/24/2020</u>	RCD Review (Print):	Date											
Sign <u>[Signature]</u>	Time: <u>~</u>	Sign <u>[Signature]</u>	Time: <u>11:10</u>	Sign												

BSY 1/12/20 170 uA total, most to A

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 _____ of _____
Location BSY	Accelerator Operating Conditions HB: 50 nA CW HA: 22.5mA HC: 60mA	Instrument: 61 SO RD5 Serial #: 132113 Calibration Due: 5/17/18	Survey Number NIA	RWP 5/2018-3002
Reason for Survey: Restricted				
<b>LEGEND</b> All readings in mR/hr whole body (unless annotated otherwise)				
<p>--- Denotes posted area</p>				
<p>(#) Denotes smear location          (refer to page 2 for results)</p> <p>Contact dose rate          Whole Body dose rate          Item description</p> <p>Denotes area not surveyed</p>				
<b>Approved Abbreviations</b> RA - Radiation Area HRA - High Radiation Area CA - Contamination Area				
<p>For Beam Enclosure Entry Surveys</p> <p><input checked="" type="checkbox"/> Full survey, all areas posted</p> <p><input type="checkbox"/> Partial survey with continuous surveillance</p> <p><input type="checkbox"/> Partial survey with exclusion zone(s) posted</p> <p>Comments:</p>				
Performed By (Print): <i>Stephanie Echeverria</i>	Date: 5/6/18	Crew Chief Review (Print): <i>S. Frierson</i>	Date: 05/06/18	RCD Review (Print):

# BSY 4/10/18 80 uA CW

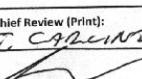
RADIOPHYSICS		REV. A	RADIOPHYSICS		RADIOPHYSICS	RADIOPHYSICS	
Location BSY			Accelerator Operating Conditions ~22 uA HA ~60 uA HC ~50 uA HB	5 PASS	Instrument: LUDLUM 78 Serial #: 2576664 Calibration Due: 7/3/18	Survey Number n/a	RWP 2018-5002
Reason for Survey: CONTROLLED ACCESS							
<b>LEGEND</b> 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							
<b>Approved Abbreviations</b> RA - Radiation Area HRA - High Radiation Area CA - Contamination Area							
<b>For Beam Enclosure Entry Surveys</b>							
<input checked="" type="checkbox"/> Full survey, all areas posted <input type="checkbox"/> Partial survey with continuous surveillance <input type="checkbox"/> Partial survey with exclusion zone(s) posted							
Comments:							
Performed By (Print): <u>ADAM WARTBERGER</u>		Date: 4/10/18	Crew Chief Review (Print): <u>DENNIS TURNER</u>	Date: 2018-04-10	RCD Review (Print):	Date	
Sign <u>/</u>		Time: <u>10:00</u>	Sign <u>/</u>	Time: <u></u>	Sign <u></u>		

Detailed description: The floor plan shows the layout of the South Linac area with various rooms and shield walls labeled. Key features include the 'South Linac Gate' at the top left, 'BSY Dump' with a 'LOCKED RA' sign, 'Hall C Shield Wall' on the right, 'Hall B Shield Wall' at the bottom right, and 'Hall A Shield Wall' at the bottom center. Radiation levels are indicated by numbers next to arrows pointing from the 'RA' (Radiation Area) symbols. Some areas are marked with diagonal lines indicating they were not surveyed. A vertical axis 'A' is shown on the right side.

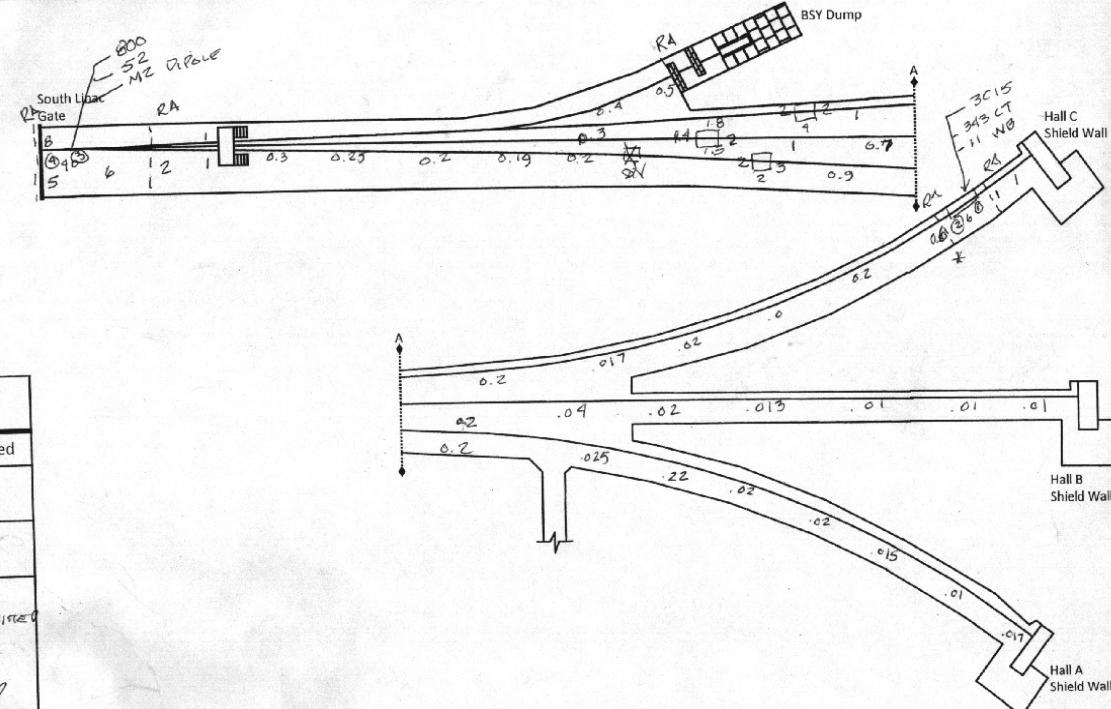
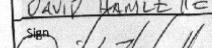
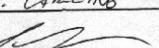
BSY 4/3/18 40 uA CW

HPF-OPS-011.a	Rev: 0	05/06/2016	RADIOLOGICAL SURVEY FORM	
Location BSY	Accelerator Operating Conditions 55 $\mu$ A MC      5 PASS 22 $\mu$ A MA      20 $\mu$ A HB		Instrument: 6150 AD 5 Serial #: 132113 Calibration Due: 5/17/18	Survey Number A/A
Reason for Survey: Controlled Access for Maintenance				
<b>LEGEND</b> 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				
South Linac Gate         <img alt="Hand-drawn map of the South Linac Gate area showing dose rates in mR/hr. The map includes a 'LOCKED' BSY Dump area, a 'HLL AMMETER' area, and various sections labeled with dose rates like .1, .2, .4, .5, .7, 1, 1.1, 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, 11.10, 11.11, 11.12, 11.13, 11.14, 11.15, 11.16, 11.17, 11.18, 11.19, 11.20, 11.21, 11.22, 11.23, 11.24, 11.25, 11.26, 11.27, 11.28, 11.29, 11.30, 11.31, 11.32, 11.33, 11.34, 11.35, 11.36, 11.37, 11.38, 11.39, 11.40, 11.41, 11.42, 11.43, 11.44, 11.45, 11.46, 11.47, 11.48, 11.49, 11.50, 11.51, 11.52, 11.53, 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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 <u>4</u> of <u>4</u>			
Location <b>BSY</b>	Accelerator Operating Conditions <b>4 uA TUNE</b>		Instrument: <u>FH 406</u> Serial #: <u>10585</u> Calibration Due: <u>4/9/18</u>	Survey Number <b>2017 - S013</b>			
Reason for Survey: <b>CHECK 3C15 &amp; SURROUNDING AREA</b>							
<b>LEGEND</b> 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							
<b>Approved Abbreviations</b> RA - Radiation Area HRA - High Radiation Area CA - Contamination Area							
<b>For Beam Enclosure Entry Surveys</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"><input type="checkbox"/> Full survey, all areas posted</td> <td style="width: 15%;"><input checked="" type="checkbox"/> Partial survey with continuous surveillance</td> <td style="width: 15%;"><input type="checkbox"/> Partial survey with exclusion zone(s) posted</td> </tr> </table>					<input type="checkbox"/> Full survey, all areas posted	<input checked="" type="checkbox"/> Partial survey with continuous surveillance	<input type="checkbox"/> Partial survey with exclusion zone(s) posted
<input type="checkbox"/> Full survey, all areas posted	<input checked="" type="checkbox"/> Partial survey with continuous surveillance	<input type="checkbox"/> Partial survey with exclusion zone(s) posted					
<b>Comments:</b> <div style="border: 1px solid black; height: 100px; width: 100%;"></div>							
Performed By (Print): <u>M MERZ</u>		Date: <u>2017 DEC 08</u>	Crew Chief Review (Print): <u>L. CARCINO</u>	Date: <u>12/08/2017</u>			
Sign 		Time: <u>1051</u>	Sign 	Time: <u>1155</u>			
RCD Review (Print):		Date					

# 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 8 uA	Instrument: AP 6158	Serial #: 132113	Survey Number N/A	RWP 2017 - 5002
Reason for Survey: FULL SURVEY OF BSY					
<b>LEGEND</b> 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					
					
<b>Approved Abbreviations</b> RA - Radiation Area HRA - High Radiation Area CA - Contamination Area					
<b>For Beam Enclosure Entry Surveys</b> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Full survey, all areas posted</li> <li><input type="checkbox"/> Partial survey with continuous surveillance</li> <li><input type="checkbox"/> Partial survey with exclusion zone(s) posted</li> </ul>					
<b>Comments:</b> * WALK-THRU PERMITTED @ 3C15 ** RA - RWP POSTED					
Performed By (Print): <b>DAVID HAMLETTE</b>	Date: 12/8/17	Crew Chief Review (Print): <b>I.T. CARLINO</b>	Date: 12/10/17	RCD Review (Print):	Date
Sign: 	Time: 11:20	Sign: 	Time: 12:24	Sign	