

**BNL RADIOLOGICAL WORK PERMIT (RWP)**

RWP # 08-01

RWP Type:  Job Specific  General Start Date 08/01/08 End Date 07/31/09 Revised End Date \_\_\_\_\_

Shaded area 1 through 6 to be completed by requester / initiator

1. Initiator: <b>Ray Karol</b>	2. Life #: <b>15065</b>	3. Phone #: <b>5272</b>	4. Bldg.: <b>911A</b>
5. Job Location: <b>Posted Radiation Areas at the Collider-Accelerator Department – See SI (1).</b>			
6. Job Description: <b>Routine Entry for inspections, Data Collection, Tours, and Routine Work Activities Performed by a System Specialist.</b>			

7. Radiological Concerns: (e.g. Primary radionuclides, high dose rate, airborne) N/A

8. Conditions that will void RWP: This RWP is not for work in Radiation Fields > 100 mR hr<sup>-1</sup>. Handling or exposure to tritiated water, Unapproved alterations of radiation barriers, or for work with the potential to disperse or generate radioactive contamination

<p>9. Job Review:</p> <p><input checked="" type="checkbox"/> Pre-Job Review</p> <p><input type="checkbox"/> ALARA Review</p> <p><input type="checkbox"/> Pre-Job Brief</p> <p><input type="checkbox"/> Post-Job Review</p> <p><input type="checkbox"/> Other</p> <p>Work Control Coordinator to consult with Building Manager and/or Supervisor when assigning tasks.</p>	<p>10. Estimated Dose: (mrem)</p> <p>Highest Individual <u>20 mRem</u></p> <p><input type="checkbox"/> Per-Job</p> <p><input checked="" type="checkbox"/> Per Entry</p> <p>Collective <u>200 mRem</u></p> <p><input checked="" type="checkbox"/> Per Job</p> <p><input type="checkbox"/> Per Entry</p> <p style="text-align: center;">See SI (2)</p>	<p>11. Attachments:</p> <p><input checked="" type="checkbox"/> Radiological Survey Form (Posted locally)</p> <p><input type="checkbox"/> Technical Work Document TWD# _____</p> <p><input checked="" type="checkbox"/> Other: Pre Job Review C-A OPM-ATT 9.5.4a</p> <p><input type="checkbox"/> Not Applicable</p>	<p>12. Training Requirements:</p> <p><input checked="" type="checkbox"/> Radiation Worker (RWT 002)</p> <p><input type="checkbox"/> RBA Practical (RWT 002A)X</p> <p><input type="checkbox"/> Contamination (RWT 300 / 300A)</p> <p><input type="checkbox"/> Benchtop/dispersibles (RWT 500)</p> <p><input checked="" type="checkbox"/> Other Applicable C-A Facility Specific Training, (C-A Access, Radiobiology or Collider User) in addition to Radiation Worker 1 See SI (3)</p> <p><input type="checkbox"/> Not Applicable</p>
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<p>13. Work Controls:</p> <p><input type="checkbox"/> FS Coverage</p> <p><input type="checkbox"/> Intermittent</p> <p><input type="checkbox"/> Continuous</p> <p><input type="checkbox"/> Pre-Job Briefing</p> <p><input checked="" type="checkbox"/> Limiting Conditions See SI (2)</p> <p><input type="checkbox"/> Hold Points</p> <p><input type="checkbox"/> Air Monitoring</p> <p><input type="checkbox"/> Shielding</p> <p><input checked="" type="checkbox"/> Other See SI (6)</p>	<p>14. Protective Equipment:</p> <p><input type="checkbox"/> Gloves</p> <p><input type="checkbox"/> Shoe Covers</p> <p><input type="checkbox"/> Booties</p> <p><input type="checkbox"/> Coveralls</p> <p><input type="checkbox"/> Respirator</p> <p><input type="checkbox"/> Head Cover</p> <p><input checked="" type="checkbox"/> Not Applicable</p>	<p>15. Dosimetry:</p> <p><input checked="" type="checkbox"/> TLD</p> <p><input type="checkbox"/> Self Reading Dosimeter</p> <p><input type="checkbox"/> Alarming Dosimeter</p> <p><input type="checkbox"/> Finger Dosimetry</p> <p><input type="checkbox"/> Not Applicable</p>	<p>16. Check Out Instructions:</p> <p><input type="checkbox"/> Bioassay</p> <p><input type="checkbox"/> Whole Body Count</p> <p><input type="checkbox"/> Urine Sample</p> <p><input type="checkbox"/> Pre-Job</p> <p><input type="checkbox"/> Post-Job</p> <p><input type="checkbox"/> Contamination Check</p> <p><input type="checkbox"/> Personnel Frisk</p> <p><input type="checkbox"/> PCM</p> <p><input type="checkbox"/> Equipment Tools</p> <p><input type="checkbox"/> Post Job Survey</p> <p><input type="checkbox"/> Not Applicable</p> <p><input checked="" type="checkbox"/> Activation Check See SI 7</p>
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17. Expected Radiological Conditions

<u>Radiation</u> <input type="checkbox"/> N/A	<u>Surface Contamination</u> <input checked="" type="checkbox"/> N/A	<u>Airborne Radioactivity</u> <input checked="" type="checkbox"/> N/A
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General Area: <u>1 to 75 mrem/h, See posted survey</u> On Contact: <u>See posted survey</u> Gamma <input checked="" type="checkbox"/> Neutron <input type="checkbox"/> Beta <input type="checkbox"/> Check all that apply	Removable: _____ dpm/100cm <sup>2</sup> Alpha Removable: _____ dpm/100cm <sup>2</sup> Beta/Gamma Removable: _____ dpm/100cm <sup>2</sup> Tritium Total: _____ dpm/100cm <sup>2</sup> Alpha Total: _____ dpm/100cm <sup>2</sup> Beta/Gamma	Nuclide _____ Concentration _____ _____ _____
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18. Special Instructions (Hold Points, Limiting Conditions, Special Dose Limits, etc.) (SI): (Including Facility Specific Training)

- (1) Refer to C-A OPM-ATT 9.5.4a for a listing of permanent Radiation Areas. Due to the transient nature of many Radiation Areas at C-A there will be some that may not be listed on this attachment but may be covered under this RWP. **Read and follow all postings.**
- (2) No single entry shall result in more than 20 mR. Multiple entries shall not result in more than 20 mR per person per job. If pre-job dose estimates exceed 20 mR per person a Job-Specific RWP is required.
- (3) A trained and authorized C-A escort in accordance with C-A OPM 2.16 may escort visitors.
- (4) Consult with Facility Support Staff prior to starting any job in the U-line Neutrino Blockhouse (LANL, proton radiography).
- (5) This RWP is not for work in Radiation Fields > 100 mR hr<sup>-1</sup>. Handling or exposure to tritiated water, Unapproved alterations of radiation barriers, or for work with the potential to disperse or generate radioactive contamination.
- (6) Review appropriate radiological survey prior to commencing work, The sign-in log for this RWP is located in the 911A Training Office, and the Health Physics Field Office after normal working hours
- (7) Many locations require activation checks, See attachment 1 of this RWP for Summary of "Activation Check" Rules.

19.	Approvals	Signatures	Life Number	Date
	Initiator	<i>Ray Karol</i>	15065	7/15/08
	Facility Support Representative	<i>Paul Boyd</i>	19773	7/18/08
	Department (As Required)	<i>Edward T. DeWard</i>	14255	7-21-08
20.	Close Out Signatures FS Rep.			

**SUMMARY OF “ACTIVATION CHECK” RULES**

Items that **REQUIRE** an RCT survey before removal from an area posted “activation check” are:

- ✓ Floor sweepings
- ✓ Fixed structures
- ✓ Installed components
- ✓ Shielding
- ✓ Items of unknown origin

Items that **DO NOT REQUIRE** an RCT survey before removal from the area posted “activation check” are:

- ✓ Items under your control at all times after removal from the posted area that are being moved to a low-background area for radiation monitoring
- ✓ Items that are labeled, under your control at all times and that are moving from the posted area to a Radiation Area, High Radiation Area, RMA or Controlled Area
- ✓ Items that you carried into the area that you know not to be activated