



### 14.13.1 Operational Control Form for Beam Stops & Collimators

#### BNL Environmental Management System Operational Controls Form

<b>Operational Control for Significant Environmental Aspects:</b>	<b>Completed by: R. Karol Date: February 12, 2008</b>
<b>1. Operation(s):</b> <b>C-A Beam Stops / Collimators</b>	
<b>2. Activity(ies):</b> <ul style="list-style-type: none"><li>▪ Radionuclide generation in surrounding soils</li><li>▪ Radionuclide generation in air in tunnel w/ potential for release of radionuclides to atmosphere</li></ul>	
<b>3. Operational Controls (technological, operational, procedural operating criteria):</b> <ul style="list-style-type: none"><li>▪ Accelerator Safety Subject Area</li><li>▪ <a href="#">C-A OPM 10.1</a>, Occurrence Reporting and Processing of Significant Operations Information</li><li>▪ Geo-membrane placed cap over areas of maximum activation.</li><li>▪ Groundwater well results that indicates effectiveness of control.</li><li>▪ Tier I program and self-evaluations</li><li>▪ <a href="#">C-A OPM 2.28</a>, C-A Procedure for Work Planning and Controls for Operations</li></ul>	
<b>4. Maintenance Plan(s):</b> <ul style="list-style-type: none"><li>▪ Membrane Area Inspections</li><li>▪ Groundwater monitoring well maintenance plan, which is contained in site-wide GW monitoring plan performed by EWMSD.</li><li>▪ The selected remedies presented in the Record of Decision (ROD) for Area of Concern 16T g-2 Tritium Source Area and Groundwater Plume, Area of Concern 16K Brookhaven Linac Isotope Producer, and Area of Concern 12 - Former Underground Storage Tanks</li><li>▪ Removable Soil Sample Program (<a href="#">C-A OPM 9.5.15</a>, Sampling Activated Soil Areas Near Known Beam Loss Locations).</li></ul>	
<b>5. Actions to be Taken if Controls Fail:</b> <ul style="list-style-type: none"><li>▪ See <a href="#">Groundwater Protection Contingency Plan</a> that contains steps taken if monitoring well indicates cap failure via unexpectedly high contaminant concentrations.</li><li>▪ If periodic air monitoring indicates unexpectedly high airborne contaminant concentrations, or an accidental release occurs, EPA notification as required per conditions in permit BNL-188-01 (AGS) and BNL-389-01 (RHIC).</li></ul>	

See [C-A OPM 3.0](#), Local Emergency Plan for the C-A Department

**6. Records:**

- Operational Control Form
- Process Assessment Form
- C-A Family ATS documentation on completion of Environmental Management Program, Section 10 Tasks
- Geo-membrane cap inspection records
- Groundwater and activated soil monitoring data
- Environmental monitoring data
- ORPS report (for qualifying liquid spills only)
- Periodic air sample data
- Tier I Inspection records / Tracking Database

**7. Responsibilities:** (a) to ensure controls are in place; (b) to ensure controls keep working; (c) to take action when controls fail; (d) to create and keep records relative to operational controls

Name	Responsibility
C-A FES Section	Verify Membrane Integrity.
C-A ESSHQ Division	Ensure periodic tunnel air monitoring is conducted.
C-A ESSHQ Division	Ensure periodic activated soil samples are checked.
C-A ESSHQ Division and E&WMSD	Ensure that g-2 source and plume remedies are implemented in accordance with the ROD
E&WMSD	Collect and Analyze Groundwater Samples, Maintain GW records
E&WMSD	Report environmental monitoring data
Tier I Inspection Committee	Tier I Documentation in ATS

**8. Training:**

Name	Training	Date
EWMSD Field Sampling Team	Training on sampling SOPs	N/A
Building Staff	See also: <a href="#">EMS Training package</a> for this operation	N/A