

## BNL BERYLLIUM USE REVIEW FORM (BeO)

<b>CURRENT: OPERATIONS CURRENTLY BEING DONE</b> Complete a separate questionnaire for each beryllium operation.	
Department	(machine shop, accelerator, experiment, laboratory) National Synchrotron Light Source (Accelerator)
Use of Beryllium	(detector window, beam pipe, reaction product, stock) Beryllium Oxide (BeO), Beryllia Insulators, beam filtering windows, shims
Describe Use or Process	Only handled as an ARTICLE
Description of Operation/Handling Procedure:	<ol style="list-style-type: none"> <li>1. At 14 locations around X-ray ring, BeO discs 5mm thick x ~1" diam. Act as filtering windows @ hard X-ray monitoring ports (in vacuum).</li> <li>2. Photon beam position monitors located at the U14B, X1, X13, X17, X21 and X25 beamlines have BeO shims (8/monitor) for electrical isolation and thermal conductivity (in vacuum).</li> <li>3. Items above manufactured by Acuratus in New Jersey.</li> <li>4. RF cavities have some ceramic insulators made of BeO. Spare insulators and windows are stored in 535C.</li> <li>5. Note: I was informed that transistors may have BeO insulators. These would be everywhere at BNL.</li> <li>6. Some resistors have ceramics made of BeO (in wall current monitors).</li> </ol>
Physical State of Be Amount Used	Solid (sheet)    Oxide N.A.
Building: 725       729	Room: X-ray and VUV experimental floors. Inside X-ray and VUV rings, and Linac Room 2-190A (storage) Near RF test cave in cabinet 535C Vacuum lab (C20) in locker #1&2  SDL
Frequency of Use	In continuous use
Engineering Controls:	No machining
Personal Protective Equipment	Gloves: Impervious
	Clothing: Lab Coat (sometimes)
	Respirator: None
	Frequency: Occasional
Users (with life number or job title)	Name & Status (Current)
	<i>Current techs and scientists:</i> Tony Lenhard, Rick Greene, Rich Freudenberg, Jim Newburgh, Payman Mortazavi, Eugene Hu, Walter DeBoer
Emergency Response Scenario [Describe likely event(s)]	Material could crack into small pieces.

Written Documentation and Emergency Response	<a href="#">NSLS PRM 6.3.0 “Beryllium Management”</a> outlines the NSLS beryllium program, including: <ul style="list-style-type: none"> <li>▪ Responsibilities</li> <li>▪ Work Control Requirements <ul style="list-style-type: none"> <li>Storage and Handling</li> <li>Damaged Articles</li> <li>Oxidized Articles</li> </ul> </li> <li>▪ Training</li> <li>▪ Wastes</li> </ul> BNL Industrial Health staff is contacted to conduct surface and air monitoring as necessary.
Pollution Prevention Plan	N.A. No machining. Limiting spread of broken pieces.
End of Project Plan	End-of-Project Plan would involve dealing with any remaining beryllium as a waste as described in NSLS PRM 6.3.0.

Person Completing the Questionnaire

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