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|  | [**Task Hazard Analysis**](https://www.jlab.org/ehs/ehsmanual/Glossary.htm#THADef) **(THA) Worksheet**  **(See** [**ES&H Manual Chapter 3210 Appendix T1**](http://www.jlab.org/ehs/ehsmanual/3210T1.htm)  [**Work Planning, Control, and Authorization Procedure**](http://www.jlab.org/ehs/ehsmanual/3210T1.htm)**)** | **Click**  **For Word Doc** |
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| **Author:** | Eugene Pasyuk | | | | | **Date:** | | 03/24/2016 | | | **Task #:**  **If applicable** |  |
| **Complete all information. Use as many sheets as necessary** | | | | | | | | | | | | |
| **Task Title:** | | Operation od PRAD Vacuum chamber | | | | | | | **Task Location:** | Hall B | | |
| **Division:** | | Physics | | | **Department:** | | Hall B | | | **Frequency of use:** | | weekly |
| **Lead Worker:** | | | Doug Tilles | | | | | | | | | |
| **Mitigation already in place:**  [**Standard Protecting Measures**](http://www.jlab.org/ehs/ehsmanual/Glossary.htm#SPMDef)  [**Work Control Documents**](http://www.jlab.org/ehs/workcontrol.html) | | | | Standard Hall B protective measures and appropriate personnel training including but not limited to SAF111 PRad COO, PRad ESAD | | | | | | | | |

| **Sequence of Task Steps** | **Task Steps/Potential Hazards** | [**Consequence Level**](http://www.jlab.org/ehs/ehsmanual/Glossary.htm#ConsequenceLevel) | [**Probability Level**](http://www.jlab.org/ehs/ehsmanual/Glossary.htm#ProbabilityLevel) | [**Risk Code**](http://www.jlab.org/ehs/ehsmanual/Glossary.htm#RCDef) **(before mitigation)** | **Proposed Mitigation**  **(Required for** [**Risk Code**](http://www.jlab.org/ehs/ehsmanual/Glossary.htm#RCDef) **>2)** | **Safety Procedures/ Practices/Controls/Training** | [**Risk Code**](http://www.jlab.org/ehs/ehsmanual/Glossary.htm#RCDef)  **(after mitigation** |
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|  | PRad experiment a large ∼5m long vacuum chamber extending from the target to the PRad detector system. There is a 1.7m diameter 63 mil Al. window at one end of the vacuum chamber, just before the PRad detectors. When this chamber is under vacuum it has very large stored energy. The accidental rupture of the window causes a release of large stored energy. This present hazard to the personal and equipment | H | L | 3 | A window cover has been fabricated from 1/8” thick aluminum to protect the window from damage due to something falling into the window. This cover will be attached to the window at all times except when the experiment is running.  The protective window cover will be installed or removed only when there is no vacuum in the tank. This will remove the stored energy in the tank so people can work near the window. | The PRad experiment is set up on level 1 of the Hall B Space Frame. This area will be roped off whenever the tank is under vacuum and safety glasses and hearing protection will be required to enter level 1.  All operations near the window should be performed by authorized personnel only. The operations include but not limited to installation and removal of widow cover, connection of the beam pipe to the window. | 2 |
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| **Highest** [**Risk Code**](http://www.jlab.org/ehs/ehsmanual/Glossary.htm#RCDef) **before Mitigation:** | 3 | **Highest** [**Risk Code**](http://www.jlab.org/ehs/ehsmanual/Glossary.htm#RCDef) **after Mitigation:** | 2 |

When completed, if the analysis indicates that the [Risk Code](http://www.jlab.org/ehs/ehsmanual/Glossary.htm#RCDef) before mitigation for any steps is “medium” or higher (RC≥3), then a formal [Work Control Document](http://www.jlab.org/ehs/ehsmanual/Glossary.htm#WCDDef) (WCD) is developed for the task. Attach this completed Task Hazard Analysis Worksheet. Have the package reviewed and approved prior to beginning work. (See [ES&H Manual Chapter 3310 Operational Safety Procedure Program](http://www.jlab.org/ehs/ehsmanual/manual/3310.html).)

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| **Form Revision Summary**  **Periodic Review – 08/13/15 –** No changes per TPOC  **Revision 0.1 – 06/19/12 -** Triennial Review. Update to format.  **Revision 0.0 – 10/05/09 –** Written to document current laboratory operational procedure.   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | |  | **ISSUING AUTHORITY** | **TECHNICAL POINT-OF-CONTACT** | **APPROVAL DATE** | **REVIEW DATE** | **REV.** |  | |  | ESH&Q Division | [Harry Fanning](mailto:fanning@jlab.org?subject=ESH%20Manual%20Chapter%203210%20Appendix%201%20THA%20Form) | 08/13/15 | 08/13/18 | 0.1 |  |   ***This document is controlled as an on line file. It may be printed but the print copy is not a controlled document. It is the user’s responsibility to ensure that the document is the same revision as the current on line file. This copy was printed on 4/8/2016.*** |