

Task Hazard Analysis (THA) Worksheet

(See [ES&H Manual Chapter 3210 Appendix T1](#)
[Work Planning, Control, and Authorization Procedure](#))

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For Word

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Complete all information. Use as many sheets as necessary

Task Title:	Operation of PRad GEM detector	Task Location:	Hall B
Division:	Physics	Department:	Hall B
Frequency of use:	Daily		
Lead Worker:			
Mitigation already in place: Standard Protecting Measures Work Control Documents	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	Probability Level	Risk Code (before mitigation)	Proposed Mitigation (Required for Risk Code >2)	Safety Procedures/ Practices/Controls/Training	Risk Code (after mitigation)
1	GEM chambers will use 70/30 ArCO2 gas mixture. The gas is not toxic and not flammable. Gas cylinder will be located in Hall B gas shed. The volume of the chamber is small. ODH conditions are not possible.	L	EL	N	No mitigation is necessary		N

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Sequence of Task Steps	Task Steps/Potential Hazards	Consequence Level	Probability Level	Risk Code (before mitigation)	Proposed Mitigation (Required for Risk Code >2)	Safety Procedures/ Practices/Controls/Training	Risk Code (after mitigation)
2	GEM uses HV up to 4 kV. The HV power supply can provide maximum current of 1 mA. Therefore it is classified as Class 1 electronic equipment hazard.	L	L	1	All the component of the GEM chamber that can carry HV are inside the sealed volume and they are not accessible by the personnel. The only accessible point the connection of the cable to the chamber. SHV connectors are used, They have very low risk of touching pin with the HV.	Any work on the chamber must be done with the HV power supply OFF and HV cable disconnected. Trained personal has negligible risk of the exposure to the HV.	N

Highest Risk Code before Mitigation:

1

Highest Risk Code after Mitigation:

N

When completed, if the analysis indicates that the Risk Code before mitigation for any steps is “medium” or higher (RC≥3), then a formal [Work Control Document](#) (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](#).)

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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	08/13/15	08/13/18	0.1

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