

EXHIBIT A

Vacuum Window Engineering Note (per Fermilab ES&H Manual Chapter 5033.1)

Vacuum Window Number (obtain from Teamcenter): _____

Identification and Verification of Compliance (If Teamcenter electronic Workflow approval is used instead of a physical signature note this in the signature blank):

Prepared by	_____	Date	_____	Div/Sec	_____
Reviewed by	_____	Date	_____	Div/Sec	_____
Div/Sec Head	_____	Date	_____	Div/Sec	_____

Director's signature (or designee) if vacuum window requires an exception to the provisions of this chapter.

Amendment No.	Reviewed by	Date
_____	_____	_____
_____	_____	_____
_____	_____	_____

Vacuum Vessel Title for the vacuum vessel to which the Vacuum Window is attached.

Vacuum Vessel Number for the vacuum vessel to which the Vacuum Window is attached.

Vacuum Window Drawing Number (List all pertinent drawings):

Drawing No.	Location of Originals
_____	_____
_____	_____
_____	_____

Laboratory location code	_____
Purpose of vacuum vessel and vacuum window	_____
Internal MAWP	_____
External MAWP	_____
Working Temperature Range	_____ °F _____ °F

1. Design Verification: Provide design calculations in the Note Appendix.

2. Fabrication: Is this vacuum window fabricated in house? Yes No
If "Yes", Attach the written fabrication procedure in the Note Appendix.

3. Inspection: Attach inspection reports and Travelers in the Note Appendix. Include date(s) of manufacture.

4. Testing: Attach failure and acceptance testing procedure and results in the Note Appendix. Include dates of testing

5. System Venting Verification:

Is the relieving system of the vacuum vessel to which this vacuum window is attached sufficiently sized such that if the vessel is pressurized, the maximum differential pressure across the window cannot exceed the design differential pressure of the vacuum window?
 Yes No

Attach Calculations in the Note Appendix

6. Operating Procedure Section:

Is an operating procedure necessary for the safe operation of this vessel? Yes No
If "Yes", the operating procedure must be attached to the Note Appendix

7. Hazard Analysis: Is the safety factor on this vacuum window less than 2.0? Yes No
If "Yes", a hazard analysis must be prepared and attached to the Note Appendix

8. Degradation from Exposure: Will the integrity of the window be compromised over time by exposure to radiation or cyclic stress? Yes No
If "Yes", include in the technical appendix any requirements for recording exposure, as well as a change-out schedule.