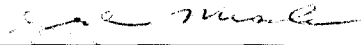


**Procedure for MSD Identification of Vacuum Windows & Their
Engineering Notes**

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Prepared by



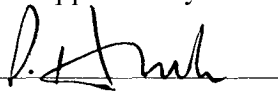
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Reviewed by



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MSD Engineering Committee

Approved by



Patrick Hurh, MSD Head

Procedure for MSD Identification of Vacuum Windows & Their Engineering Notes

1.0 Purpose and Scope

1.1 Purpose

The purpose of this procedure is to establish the proper policy to be used for identification of vacuum windows and their associated engineering notes as required by FESHM chapter 5033.1 when used by the Accelerator Division Mechanical Support Department.

1.2 Scope

All vacuum windows which fall under the scope of FESHM chapter 5033.1 shall follow this procedure.

2.0 Definitions

2.1 Vacuum Window

As specified in FESHM chapter 5033.1 namely any relatively thin separation between a volume under vacuum and a volume at atmospheric pressure through which primary or secondary beam passes.

2.2 Vacuum Window Engineering Note

Written analysis demonstrating that a given vacuum window satisfies the requirements of FESHM chapter 5033.1.

2.3 Vacuum Window Identification

Means of identification that is accomplished by scribing/engraving, affixing a metal tag, or marking with a permanent marker. This is to be applied in a manner that will not compromise the integrity of the window.

3.0 Responsibilities

The Mechanical Support Department Head will assign an individual, the Thin Window Administrator (TWA), to maintain an up to date log of vacuum window identification and their associated engineering notes.

The TWA will be responsible for assigning the appropriate identification at the request of the engineering note preparer (or department designee).

The window note preparer (or department designee) will ensure that the window is marked in the prescribed manner before installation.

The window designer is to keep all design information prior to engineering note preparation.

4.0 Policy

4.1 Identification Assignment

The window designer will obtain the drawing number to identify the window prior to installation. When the window is ready for installation, the note preparer (or department designee) will obtain from the TWA the window and note identification.

4.2 Vacuum Window Identification Format

4.2.1 At Time of Fabrication

At the time of fabrication a vacuum window is to be identified by its 6 digit drawing number only. A traveler is to be kept with the window that includes fabrication date, material certification, and pertinent fabrication information.

A preliminary engineering note shall be included with the traveler.

4.2.2 At Time of Installation

Vacuum window identification will include four fields:

MM – LLL – DDDDDD(R) – NNN

MM - This will be a two letter combination to identify the machine or location where the window will be installed. Use only one of the following machine categories:

- LI - Linac
- BT - Booster
- MI - Main Injector
- RR - Recycler
- TV - Tevatron
- TH - P-Bar Target Hall
- DB - Debuncher
- AC - Accumulator
- SY - Switchyard
- MB - MiniBooNE
- NU - NuMI
- OT - Other

LLL - This will be a unique numerical location identifier within the specific machine category eg. 001, 002, 003, etc.

DDDDDD(R) - This will be the drawing number used for the fabrication of the unit including latest revision letter (R).

NNN - This will be a unique numerical identifier for a window at the same location. eg. 001, 002, 003, etc.

4.2.3 For Out of Service or Reused Vacuum Windows

When a vacuum window is taken out of service and stored for future use it shall be tagged with date stored and any service history. Its former identification shall be retained until reused. Reused windows will receive new identification when put back in service. A copy of the original note with all window history shall be appended to the new note. The reused window does not require an acceptance test.

4.3 Vacuum Window Engineering Note Identification

Vacuum Window Engineering Note identification will have the same identification format as the window exclusive of the replacement window field (NNN). Identical replacement windows used in the same location with no changes in operating conditions do not require new notes. Acceptance testing documentation for any replacement window will be attached to the appendix of the original note and will require no further review.