

Penetration Safety: Penetration Permit

Work Request # (if applicable): \_\_\_\_\_ Date Permit Submitted: 2-27-09

**General Information**

Area/location	Date(s) work will be performed	Job description (location of penetration, material to be penetrated, tools, etc)
LINAC Sec 18, 19, 20	3-2-09	Set Hi-Li anchors in walls and AEG Floor monuments
Responsible line manager or designee Name/Organization	Phone #	Other information (e.g., depth of penetration, etc)
Hans Imfeld AEG/MET	3472	< 2"

**Class 1 Penetration Checklist**

Hollow walls, ceilings or floors, or 2 inches or less into solid material

	Yes	N/A
Checked other side of walls, under floors, or through false ceilings for hazards?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Verified stud locations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Non-conductive tools to be used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Masonry bits and hand tools to be used for initial penetration?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Drill bit stops or short drill bits (2 inches or less) to be used for solid material?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Electrical tools equipped with GFCIs or double insulated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
GFCIs tested?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Appropriate PPE specified (see page 3) and obtained?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PPE inspection(s) up to date?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Penetration is within a radiologically controlled area or a radioactive material management area? <i>If yes, complete the "Radiation Safety" portion of the form.</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Penetration is part of accelerator shielding (for example: the Accelerator Housing Structure, End Station A Hall, Klystron Gallery Floor)? <i>If yes, complete the "Radiological Safety" section of the form.</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
A Radiation Safety Work Control Form (RSWCF) is required for all penetrations that meet any of the following conditions (contact the area safety officer for more information):	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>• Into or through non-concrete radiation shielding</li> <li>• Into concrete radiation shielding, with penetration exceeding 2 inches in diameter</li> <li>• Into concrete radiation shielding, with penetration exceeding 6 inches deep</li> <li>• Into concrete radiation shielding where penetration is not re-filled with a dense material (e.g. concrete or steel)</li> <li>• All the way through concrete radiation shielding</li> </ul>		
Checklist completed by: <u>Hans Imfeld</u>	Date: <u>2-27-09</u>	

Complete "Hazards and Required Controls" section.

**Class 2 Penetration Checklist**

Greater than 2 inches into solid material

	Yes	N/A
Reviewed historical records, engineering plans, and drawings?	___	___
Area responsible person/designee, customer/requester, or other personnel consulted?	___	___
Visually inspected proposed location of penetration?	___	___
Checked other side of walls, under floors, or through false ceilings for hazards?	___	___
De-energized and locked/tagged-out energy sources as required?	___	___
NDT used to determine if additional hazards exist? <i>If yes, list results under "Hazards."</i>	___	___
NDT used to determine wall reinforcement?	___	___
Electrical tools equipped with GFCI or double-insulated?	___	___
GFCIs tested?	___	___
Appropriate PPE specified (see page 3) and obtained?	___	___
PPE inspection(s) up to date?	___	___
Short drill bits used or equipment marked to limit penetration depth?	___	___
Penetration is within a radiologically controlled area or a radioactive material management area. <i>If yes, complete the "Radiological Safety" section of the form.</i>	___	___
Penetration is part of accelerator shielding (for example: the Accelerator Housing Structure, End Station A Hall, Klystron Gallery Floor)? <i>If yes, complete the "Radiological Safety" section of the form.</i>	___	___
A Radiation Safety Work Control Form (RSWCF) is required for all penetrations that meet any of the following conditions (contact the area safety officer for more information):	___	___
<ul style="list-style-type: none"> <li>• Into or through non-concrete radiation shielding</li> <li>• Into concrete radiation shielding, with penetration exceeding 2 inches in diameter</li> <li>• Into concrete radiation shielding, with penetration exceeding 6 inches deep</li> <li>• Into concrete radiation shielding where penetration is not re-filled with a dense material (e.g. concrete or steel)</li> <li>• All the way through concrete radiation shielding</li> </ul>		
Checklist completed by: _____	Date: _____	

Complete "Hazards and Required Controls" section.



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### Hazards and Required Controls

May reference JHAM or AHA if hazards/controls are documented there

#### Hazards

Type and size of energy sources present (including results from NDT, if used):

None

Hazards specific to the tools that will be used: Flying Debris, Noise

Work environment hazards (such as moisture, lead, asbestos, etc.):

~~None~~ Possible irradiated concrete

Other hazards:

#### Controls

Procedural requirements: Check GFCI, Use depth gauge

Types and classification of PPE: Safety glasses, Hearing Protection

Other controls: Use Rad Vacuum

Complete the "Radiological Safety" section if appropriate, and complete the Review, Approval, and Authorization section at the end of this form.

Date Permit Issued: 2-27-09

**Radiological Safety**

**Radiological Survey, RP Field Operations Group, Ext. 4299**

*This section to be completed by RP if the penetration will be within a radiologically controlled area, radioactive materials management area, or accelerator housing. Please allow two days.*

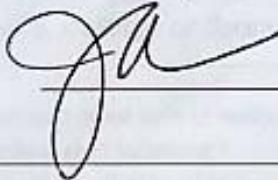
- Pre-work survey required
- Radiological HEPA vacuum cleaner required

Additional requirements for this penetration:

OK to work to Sector 20-4

See RWP For additional instructions past Sector 20-4

Penetration does not need special requirements.

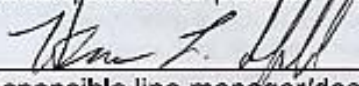
Checked by:  Date: 2 March 09

**Review, Approval, and Authorization**

Any deviation from the scope of work identified on this permit requires re-validation of this permit. This penetration permit expires 30 days after issuance.

**Class 1 & 2 Authorizations**

I have discussed the hazards and controls with the workers and verified that they are trained/qualified to perform the work.

 DATE: 2-27-09  
 Responsible line manager/designee signature

**Additional Authorization for Class 2**

\_\_\_\_\_  
 Area responsible person (e.g. area or building manager) DATE: \_\_\_\_\_