

**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:

Penetration does not need special requirements.

Checked by: \_\_\_\_\_

Date: \_\_\_\_\_

**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.

Bonnie [Signature] DATE: 3-30-09  
Responsible line manager/designee signature

**Additional Authorization for Class 2**

Tom Z. [Signature] DATE: 3-30-09  
Area responsible person (e.g. area or building manager)

Penetration Safety: Penetration Permit

### 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):

N/A

Hazards specific to the tools that will be used:

Noise

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

Flying debris

Other hazards:

Review, Approval, and Authorization

#### Controls

Procedural requirements:

use depth indicator (<2")

Types and classification of PPE:

hearing protection  
eye protection

Other controls:

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

Penetration Safety: Penetration Permit

**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.

Penetration Safety: Penetration Permit

Work Request # (if applicable): N/A Date Permit Submitted: 3-30-09

**General Information**

Area/location	Date(s) work will be performed	Job description (location of penetration, material to be penetrated, tools, etc)
Sect 10 Alignment Lab	3-31-09	Set 3/8" anchors in concrete floor
Responsible line manager or designee Name/Organization)	Phone #	Other information (e.g., depth of penetration, etc)
Brendan Dix	X 8783	< 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>
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Checklist completed by: <u>Hans Imfeld</u>	Date: <u>3-30-09</u>	

Complete "Hazards and Required Controls" section.