

## Experiment Safety Review Form

### Review Number: AD-002-2013-JUL-22

PRINCIPAL INVESTIGATOR: Mark Harrison

GROUP: Radiabeam &amp; ATF

EXT: 4635

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LIFE NUMBER: F7554

<b>Project Title:</b> Corrugated Pipe (AE56a).
<b>Location(s):</b> 0820
<b>Area(s):</b> ATF BEAMLINe #2

**SIGNATURES:**

<b>Principal Investigator:</b> Mark Harrison	<b>Date:</b>
<b>Experiment Review Coordinator:</b> Peter Cirnigliaro	<b>Date:</b> 8/26/2013
<b>Co-PI or Alternate Contact (s):</b> Kusche, Karl	<b>Date:</b>
<b>Reviewer:</b> Asher Etkin	<b>Date:</b> 7/31/2013
<b>Reviewer:</b> Karl Kusche	<b>Date:</b> 7/31/2013
<b>Reviewer:</b> Mikhail Fedurin	<b>Date:</b>
<b>Reviewer:</b> Frank Craner	<b>Date:</b> 8/2/2013
<b>Review/Approval (ERC) Comments:</b> 08/26/2013 2:04 PM	
<b>Walkthrough Signature:</b>	<b>Date:</b>
<b>Next Annual Review Date:</b> 9/30/2014	
<b>FUA Change Required?</b> No	
<b>Fire Rescue Run Card Changes Required?</b> No	
<b>Has a NEPA Review been Performed for this Project?</b> Don't Know	
<b>Required Approvals (i.e., IACUC, IBC, etc.):</b>	
<b>Project Termination Acceptance Signature:</b>	<b>Date:</b>
<b>Comments:</b>	

**I. Define the Scope of the Work****A. Description**

The corrugated pipe is a passive beam dechirper that uses a particle beam's wakefield to remove a positive chirp from a beam bunch.

\*\* (Please see attached PDF for remainder of description).

**Equipment manuals or procedures that are controlled documents:**

None.

**B. Human Performance Factors**

None.

**C. Waste Minimization/Pollution Prevention**

None.

**D. Materials Used /Waste Generated**

Materials Used	Disposal Method	Amount per Use	Amount per Year	Comments
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**II. Identify and Analyze Hazards Associated with the Work**

The following hazards were identified:

**Physical Hazards:**

- Noise > 85 dBA

**Chemical Hazards:**

- None

**Ionizing and Non-ionizing Radiation Hazards:**

- ATF electron beam (Other)

**Biological Hazards:**

- None

**Offsite Work:**

- None

**Other Issues (Security, Notifications, Community, etc.):**

- None

**Significant Environmental Aspects**

- None

**III. Develop and Implement Hazard Controls and Assess Risk****A. Physical Hazards, Tasks and Controls**

Hazard, Default Controls, Task Specific Info	Risk Level
<p><b>Hazard:</b> Noise &gt; 85 dBA</p> <hr/> <p><b>Default Controls:</b> Engineering Controls</p> <ul style="list-style-type: none"> <li>• Install barrier or absorbers in path of sound waves.</li> <li>• Replace equipment with lower emitting source.</li> <li>• Isolate equipment from structural members</li> </ul> <p>Administrative Controls</p> <ul style="list-style-type: none"> <li>• exposure monitoring as determined by SHSD.</li> <li>• Limit time in high noise area.</li> <li>• Complete medical surveillance Job Assessment form and Additional Medical Surveillance form.</li> <li>• High Noise area posting</li> </ul> <p>Training: Noise and Hearing Conservation (TQ-NOISE) High Noise Medical Surveillance</p> <p>PPE: Ear plugs, muffs, or combination</p> <p>Comply with the SBMS Subject Area: "Noise and Hearing Conservation".</p>	Negligible (0-20)

**B. Chemical Hazards, Tasks and Controls**

None

**C. Environmental Hazards, Tasks and Controls (include on/off site transportation and products/services)**

None

**D. Radiation Hazards, Tasks and Controls**

Hazard, Default Controls, Task Specific Info	Risk Level
<p><b>Hazard:</b> ATF electron beam (Other)</p> <hr/> <p><b>Default Controls:</b></p> <hr/> <p><b>Task Specific Info:</b></p> <p>Existing shielding, radiation interlock system and approved safety documentation are in place to address hazards related to electron beam delivery in experimental hall.</p>	Negligible (0-20)

**E. Biological Hazards, Tasks and Controls**

None

**F. Offsite Work Hazards, Tasks and Controls**

None

**G. Other Issues (Security, Notifications to Other Organizations, Community Involvement, etc.)**

None

**H. Recommended Exposure Monitoring**

- None

**Description or comments:**

## I. EPHA Determination

Chemical Name	Quantity (lbs, gal)	Location (Bldg/Room#)
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## IV. Perform Work Within Controls

### A. Recommended Training and Medical Surveillance Summary

- JTA for ATF User (GE-53A)
- Noise and Hearing Conservation (TQ-NOISE)

### B. Personnel Training, Qualification, and Authorization List

Employee/Guest Name	Life/Guest#	Dept	Required Training Course(s)	Signed
Mark Harrison	F7554	DB	JTA for ATF User (GE-53A) [ COURSE NOT FOUND ]	
Tara Hodgetts	V8225	DB	JTA for ATF User (GE-53A) [ COURSE NOT FOUND ]	

### C. Emergency Procedures

ATF linac operator will follow existing procedures for linac operations and local emergency plan. ATF linac operator acts as LEC.

### D. Transportation

None

### E. Logistical Interactions

None

### F. Termination/Decommissioning

Items directly exposed to electron beam require activation check prior to release from experimental hall.

## V. Provide Feedback

None

## VI. Attachments

Attachment supplied by PI.

**Attached Files:**

[RBT-5PIP-SAF-1.pdf](#)