

Person: Butler, Jessie (jbutler@jlab.org)
Org: PHALLA

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Operational Safety Procedure Review and Approval Form # 132297
(See [ES&H Manual Chapter 3310 Appendix T1 Operational Safety Procedure \(OSP\) and Temporary OSP Procedure](#) for Instructions)

Type:	OSP Click for OSP/TOSP Procedure Form Click for LOSP Procedure Form Click for LOTO-COMPLEX Information Click for LOTO-GROUP Information					
Serial Number:	ENP-22-132297-OSP					
Issue Date:	5/17/2022					
Expiration Date:	5/17/2025					
Title:	Band Saws w/o AC Power Feed (battery-powered)					
Location: (where work is being performed) Building Floor Plans	101 - Experimental Hall A	Location Detail: (specifies about where in the selected location(s) the work is being performed)	Various Hall A and Physics Division work spaces			
Risk Classification: (See ES&H Manual Chapter 3210 Appendix T3 Risk Code Assignment)	Without mitigation measures (3 or 4):		3			
	With mitigation measures in place (N, 1, or 2):		1			
Reason:	This document is written to mitigate hazard issues that are : Determined to have an unmitigated Risk code of 3 or 4					
Owning Organization:	PHALLA					
Document Owner(s):	Butler, Jessie (jbutler@jlab.org) Primary					
Supplemental Technical Validations <input type="checkbox"/>						
High Noise (Imani Burton, Jennifer Williams) Portable Hand Tools (Bert Manzlak, Tim Fitzgerald) ESH&Q Liasion (Tim Fitzgerald)						
Document History <input type="checkbox"/>						
<table border="1"><tr><td>Revision <input type="checkbox"/></td><td>Reason for revision or update <input type="checkbox"/></td><td>Serial number of superseded document <input type="checkbox"/></td></tr></table>				Revision <input type="checkbox"/>	Reason for revision or update <input type="checkbox"/>	Serial number of superseded document <input type="checkbox"/>
Revision <input type="checkbox"/>	Reason for revision or update <input type="checkbox"/>	Serial number of superseded document <input type="checkbox"/>				
Lessons Learned	Lessons Learned relating to the hazard issues noted above have been reviewed.					
Comments for reviewers/approvers: <input type="checkbox"/>						
Attachments <input type="checkbox"/>						

Procedure: ***Band Saws without Power Feed OSP.pdf***

THA: ***Band Saws without Power Feed THA.pdf***

Additional Files:

Review Signatures

Subject Matter Expert : High Noise **Signed** on 5/17/2022 9:23:48 AM by Jennifer Williams
(jennifer@jlab.org)

Subject Matter Expert : Portable Hand Tools **Signed** on 5/16/2022 3:08:50 PM by Tim Fitzgerald
(tfitzger@jlab.org)

Approval Signatures

Division Safety Officer : PHALLA **Signed** on 5/17/2022 9:49:39 AM by Ed Folts (folts@jlab.org)

ESH&Q Division Liasion : PHALLA **Signed** on 5/17/2022 9:36:30 AM by Tim Fitzgerald (tfitzger@jlab.org)

Org Manager : PHALLA **Signed** on 5/17/2022 9:26:03 AM by Mark Jones (jones@jlab.org)

Safety Warden : Experimental Hall A **Signed** on 5/17/2022 10:51:56 AM by Jessie Butler (jbutler@jlab.org)

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Operational Safety Procedure Form
(See [ES&H Manual Chapter 3310 Appendix T1](#)
Operational Safety Procedure (OSP) and Temporary OSP
Procedure for instructions.)

Click
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Title:	Band Saws w/o AC Power Feed (battery-powered)		
Location:	Hall A and Other Physics Division Work Areas	Type:	<input checked="" type="checkbox"/> OSP <input type="checkbox"/> TOSP
Risk Classification (per Task Hazard Analysis attached) (See ES&H Manual Chapter 3210 Appendix T3 Risk Code Assignment.)	Highest Risk Code Before Mitigation		
	Highest Risk Code after Mitigation (N, 1, or 2):		
Owning Organization:	Physics / Hall A	Date:	3 May 2022
Document Owner(s):	Jessie Butler (JButler)		

DEFINE THE SCOPE OF WORK

- Purpose of the Procedure** – Describe in detail the reason for the procedure (what is being done and why).
Jefferson Lab has determined that the use of a machine tool is inherently risky and carries an unmitigated Risk Code of 3 or higher. This OSP is used to ensure hazards are communicated and training is appropriate prior to use of band saws without power feed.
- Scope** – include all operations, people, and/or areas that the procedure will affect.
This OSP covers band saws that are not directly wired into a wall disconnect.
- Description of the Facility** – include building, floor plans and layout of the experiment or operation.
Band saws are used for the cutting and shaping of metal and other solid materials. Band saws may have a stationary or movable table to accommodate angled cuts and may be used with or without a vise. To be used in Hall A and other Physics Division work areas.

ANALYZE THE HAZARDS and IMPLEMENT CONTROLS

- Hazards identified on written Task Hazard Analysis**
Machine Tools: Rotating parts and cutting/abrasion.
Dust: Hazardous or nuisance
Ergonomics including: Lifting and carrying heavy objects and repetitive motions.
- Authority and Responsibility:**
 - Who has authority to implement/terminate**
Hall A Work Coordinator
 - Who is responsible for key tasks**
Hall A Tech Staff
 - Who analyzes the special or unusual hazards including elevated work, chemicals, gases, fire or sparks** (See [ES&H Manual Chapter 3210 Appendix T1 Work Planning, Control, and Authorization Procedure](#))

6. Personal and Environmental Hazard Controls Including:

6.1 Shielding

As required per equipment manual or deemed necessary for the task being performed.

6.2 Barriers (magnetic, hearing, elevated or crane work, etc.)

As required per equipment manual or deemed necessary for the task being performed.

6.3 Interlocks

As required per equipment manual or deemed necessary for the task being performed.

6.4 Monitoring systems

As required per equipment manual or deemed necessary for the task being performed.

6.5 Ventilation

As required per equipment manual or deemed necessary for the task being performed.

6.6 Other (Electrical, ODH, Trip, Ladder) (Attach related Temporary Work Permits or Safety Reviews as appropriate.)

As required per equipment manual or deemed necessary for the task being performed.

7. List of Safety Equipment:

7.1 List of Safety Equipment:

Since this OSP covers several different pieces of equipment, operator must wear proper safety equipment as outlined in the operation manual of the equipment used in performing the task.

7.2 Special Tools:

As required per equipment manual or deemed necessary for the task being performed.

8. Associated Administrative Controls

This OSP, THA and the machine's operations manual.
 On the job training and demonstrated proficiency.

9. Training

9.1 What are the Training Requirements (See [List of Training Skills](#))

- Read operations manual
- Read and sign this OSP
- Read chapter 6121 Appendix T1 Safe operation of machine tools
- Receive Supervisory authorization
- Operational checkout and familiarization by equipment

DEVELOP THE PROCEDURE

10. Operating Guidelines

- Ensure that all operator selector switches and buttons are clearly identified and that you know the function of every key, button, knob, or handle.
- Ensure that the power is off before adjusting work pieces.
- Ensure that the saw has stopped completely before loading or unloading a work piece.
- Ensure that compressed air is only used to remove chips if the air hose is equipped with a pressure-reducing nozzle. Air must not be used if chips contain hazardous material, such as Radiation. Do not use

compressed air to blow chips from personnel. This could embed chips into skin or worse air could enter the blood stream through a break in skin and cause an embolism

- Ensure that you are clear of pinch points created by moving slides before starting the machine.
- Ensure that work is done in a well-lit area.
- Use attached guard or shield to prevent chips and coolant from being thrown or splashed, except in areas not assigned as work areas or stations.
- Ensure that the blade has stopped completely before moving safeguards or covers.
- Do not reach around a safeguard.

Ensure that all guards:

- Prevent body parts from entering the area being guarded.
- Do not create pinch points between the guards and other stationary or moving parts of the machine or tooling.
- Ensure that fixed guards are securely attached to the machine forms, components, or fixtures and, where possible, utilize fasteners removable by tools not normally at the disposal of the operator.
- Ensure that any loose parts on the machine are removed before operating the machine.
- Ensure that the saw is not in contact with the work piece before the machine is started.
- Always stay at the machine while it is running.

11. Notification of Affected Personnel (who, how, and when include building manager, safety warden, and area coordinator)

Notify equipment owner by phone or email in case of incident or equipment malfunction.

12. List the Steps Required to Execute the Procedure: from start to finish.

- Provide clearance between machines so that movement of one operator or helper will not interfere with the work of others.
- Provide ample room for handling of material, work pieces, and chips.
- Provide safe storage and handling of tooling or parts that could dislodge and fall or roll.
- Keep floor area around machine free of obstructions and maintained in safe condition.

13. Back Out Procedure(s) i.e. steps necessary to restore the equipment/area to a safe level.

Stop and contact area Work Coordinator or Supervisor

14. Special environmental control requirements:

14.1 List materials, chemicals, gasses that could impact the environment (ensure these are considered when choosing Subject Mater Experts) and explore [EMP-04 Project/Activity/Experiment Environmental Review](#) below

Any coolant used must have a MDS on hand and be approved by the Environmental group

14.2 Environmental impacts (See [EMP-04 Project/Activity/Experiment Environmental Review](#))

N/A

14.3 Abatement steps (secondary containment or special packaging requirements)

N/A

15. Unusual/Emergency Procedures (e.g., loss of power, spills, injury, fire, etc.)

In the event of injury, or an immediate emergency exists, call **911** and also notify: area Work Coordinator and Supervisor

- Guards (x5822)
- Occupational Medicine (x7539)
- Crew Chief (x7045) (if inside the fence)

In case of an injury follow standard JLAB procedures. Initial response cards are located with each phone for appropriate emergency phone numbers. Additional information can be found at https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-24400/*.pdf.

16. Instrument Calibration Requirements (e.g., safety system/device recertification, RF probe calibration)

As required by operator's manual.

17. Inspection Schedules

Operators should conduct a pre-use inspections and as required by operator's manual

18. References/Associated/Relevant Documentation

- User's Manual, Location: In Hall A tech area
- EH&S Manual chapter 6121 Appendix T1 Safe operation of machine tools
- OSHA Standard 29 CFR 1910.212 Machinery and Machine Guarding

19. List of Records Generated (Include Location / Review and Approved procedure)

This OSP and associated THA

Submit Procedure for Review and Approval (See [ES&H Manual Chapter 3310 Appendix T1 OSP & TOSP Instructions – Section 4.2 Submit Draft Procedure for Initial Review](#)):

- Convert this document to .pdf
- Open electronic cover sheet:
<https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-24048/3310T1Form.doc>
- Complete the form
- Upload the pdf document and associated Task Hazard Analysis (also in .pdf format)

Distribution: Copies to Affected Area, Authors, Division Safety Officer

Expiration: Forward to ES&H Document Control

Form Revision Summary

- Revision 1.7 – 02/25/2021** – Corrected link to Word doc; updated 'ESH&Q' to 'ES&H'; other minor edits. No approval required.
- Revision 1.6 – 06/23/2020** – Update section 15 to reflect guard number, what to do in an emergency, crew chief numbers, etc. approved by H. Fanning
- Revision 1.5 – 04/11/18** – Training section moved from section 5 Authority and Responsibility to section 9 Training
- Revision 1.4 – 06/20/16** – Repositioned "Scope of Work" to clarify processes
- Qualifying Periodic Review – 02/19/14** – No substantive changes required
- Revision 1.3 – 11/27/13** – Added "Owning Organization" to more accurately reflect laboratory operations.
- Revision 1.2 – 09/15/12** – Update form to conform to electronic review.
- Revision 1.1 – 04/03/12** – Risk Code 0 switched to N to be consistent with [3210 T3 Risk Code Assignment](#).
- Revision 1.0 – 12/01/11** – Added reasoning for OSP to aid in appropriate review determination.
- Revision 0.0 – 10/05/09** – Updated to reflect current laboratory operations

Operational Safety Procedure Form

ISSUING AUTHORITY	FORM TECHNICAL POINT-OF-CONTACT	APPROVAL DATE	REVIEW DATE	REV.
ES&H Division	Harry Fanning	04/11/18	02/25/24	1.6

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Task Hazard Analysis (THA) Worksheet

(See [ES&H Manual Chapter 3210 Appendix T1](#)
[Work Planning, Control, and Authorization Procedure](#))

Click
For Word

Author:	Butler, Jessie (JButler)	Date:	3 May 2022	Task #: If applicable	N/A
Complete all information. Use as many sheets as necessary					
Task Title:	Band Saws w/o AC Power Feed (battery-powered)	Task Location:	Hall A work spaces		
Division:	Physics	Department:	Hall A	Frequency of use:	As needed
Lead Worker:	Hall A Work Coordinator				
Mitigation already in place: Standard Protecting Measures Work Control Documents	Specific to manufacturer so users of the equipment must read and understand equipment operating manual.				

Sequence of Task Steps	Task Steps/Potential Hazards	Consequence Level	Probability Level	Risk Code (before mitigation)	Proposed Mitigation (Required for Risk Code >2)	Safety Procedures/ Practices/Controls/Training	Risk Code (after mitigation)
1	Machine Tools – (e.g., rotating parts, cuts, pinch points, sharp edges, abrasions)	High	Low	3	1. Wear safety glasses 2. Wear gloves	1. Use machine guards 2. Wear proper work attire 3. Read & sign equipment OSP 4. Read and understand equipment Operation Manual	1
2	High Noise Level	Medium	Medium	3	1. Wear hearing protection	1. Properly wear ear plugs or ear muffs when required.	1
3	Dust – (hazardous or nuisance)	Medium	Low	2	1. Wear safety glasses 2. Wear dust mask / respirator is necessary and trained	1. SAF 200: Respirator training	N

Highest Risk Code before Mitigation:	3	Highest Risk Code after Mitigation:	1
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Task Hazard Analysis (THA) Worksheet

(See [ES&H Manual Chapter 3210 Appendix T1](#)
[Work Planning, Control, and Authorization Procedure](#))

When completed, if the analysis indicates that the [Risk Code](#) before mitigation for any steps is “medium” or higher (RC≥3), then a formal [Work Control Document](#) (WCD) is developed for the task. Attach this completed Task Hazard Analysis Worksheet. Have the package reviewed and approved prior to beginning work. (See [ES&H Manual Chapter 3310 Operational Safety Procedure Program](#).)

Form Revision Summary

Revision 0.2 – 07/26/21 – Periodic Review; updated header and footer

Periodic Review – 08/29/18 – No changes per TPOC

Periodic Review – 08/13/15 – No changes per TPOC

Revision 0.1 – 06/19/12 – Triennial Review. Update to format.

Revision 0.0 – 10/05/09 – Written to document current laboratory operational procedure.

ISSUING AUTHORITY	TECHNICAL POINT-OF-CONTACT	APPROVAL DATE	REVIEW DATE	REV.
ES&H Division	Harry Fanning	08/29/18	07/26/24	0.2

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