1. **PURPOSE**

1.1. To provide operational guidelines on the safe use of Radial Arm Saws found in woodworking shops at Thompson Rivers University

2. **SCOPE**

2.1. This procedure applies to contractors working at TRU sites and emplyees and studetns when on TRU property.

3. **PRECAUTIONS**

POTENTIAL HEALTH & SAFETY HAZARDS

HAZARD		TO PROTECT YOURSELF
PINCH POINTS **There are gears and exposed moving parts on machinery.**		Use LOCK-OUT procedures when performing maintenance or conducting any work within 12" of an exposed pinch point. NEVER put your hands or feet near an exposed pinch point or gears!
ELECTRICAL HAZARD		Ensure all electrical cords, switches and plugs are in good working condition
HIGH SOUND LEVELS **Sound levels exceed 85 dB**		**HEARING PROTECTION** is required when working in designated areas.
FOOT INJURY		Approved protective footwear is needed when there is the risk of foot injury due to slipping, uneven terrain, abrasion, crushing potential, temperature extremes, corrosive substances, puncture hazards, electrical shock and any other recognizable hazard
LASER HAZARD		Wear suitable eye protection

4. **PERSONAL PROTECTIVE EQUIPMENT**

	Safety glasses must be worn at all times in work area!

	Work Boots must be worn at all times when working in an area where there is risk of serious foot injury due materials falling onto the foot.
	Work Gloves should be worn when there is a risk of hand injury during the course of work tasks.
	Hard hats must be worn when working in an environment where there is a risk of objects falling from above or where there is a high risk of striking your head on objects.
	Close fitting clothing or protective clothing must be worn.
	Half mask or N95 mask should be worn in conditions where there is excessive dust in the air.
	Jewelry, watches and any dangling jewelry should not be worn when operating these pieces of equipment.

5. PROCEDURES

The principal sources of injury using radial arm saws includes cuts or amputations to arms or hands by the blade, flying wood chips and handling of materials. It is therefore necessary that no person operates this equipment until its use has been demonstrated and understood.

5.1. Pre-Operation Check

1. A radial arm saw requires many adjustments prior to use. Ensure that the saw is locked out before making these adjustments.

2. Safety glasses or goggles must be worn. A face shield may also be required and it should be used in conjunction with proper eye protection.

3. Wear hearing protection that is suitable for the level and frequency of the noise you are exposed to in the woodworking area.

4. Wear protective footwear when required.

5. Read and understand the operating manual prior to use.

6. Choose the proper blade for the job and ensure that it is installed correctly

7. Ensure the blade guards are securely installed. The upper half of the blade must always be guarded, including the arbor end. The lower half of the saw should have an articulating guard for 90-degree crosscut operations.

8. The tabletop should be large enough to cover the blade in any direction (mitre, bevel, or rip). The saw should never be operated with the blade in a position where it protrudes or extends beyond the table.

9. The slots of the back fence should not be deeper than 6mm. The fence must be replaced if the slots are deeper that this or if pieces are missing.

5.2 Operation Procedures (all cuts)

1. Ensure you are wearing all the necessary personal protective equipment.

2. Do not stand directly in line with the blade

3. Never carry on a conversation or be interrupted by a person while operating a radial arm saw.

4. Allow the saw blade to reach full speed before starting a cut.

5. Hold the stock firmly against the table top and the rear fence.

6. Make sure the hand holding the stock is never in line with the blade travel.

7. Stand on the handle side when cross cutting. Pull the cutting head with the hand nearest the handle and maneuver the stock with the other hand.

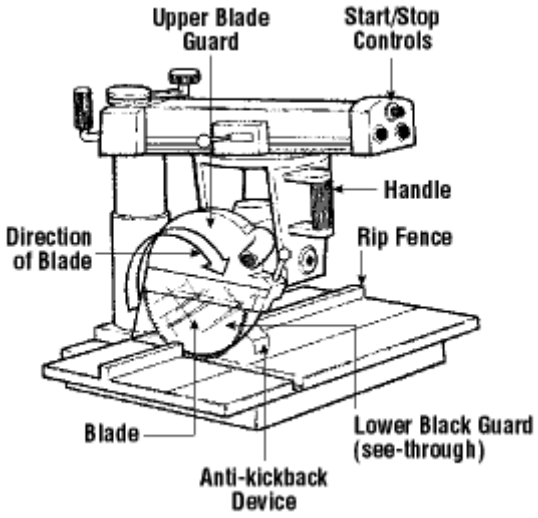
8. Return the cutting head completely to the back of the saw table after each cut. The saw should be designed so that the blade will not move forward under its own weight or if the machine is vibrating.

9. The cutting table and the saw travel stop on a radial arm saw must be designed and maintained so that no part of the saw blade can travel past the forward edge of the cutting table.

10. Clamp stock to the table on one side of the saw blade, when making mitre, bevel or compound mitre cuts. Clamping prevents the wood from sliding along the fence during the cut.

11. Never leave the radial arm saw unattended while the blade is running. Wait until the blade has come to a full stop before leaving the area.

12. Always remove scrap material from the table with a stick.



5.3 Ripping

1. Do not use radial arm saws for ripping unless the spreader (riving knife) and anti-kickback devices are provided and properly adjusted.

2. Rotate the radial arm saw head 90 degrees so that the blade is parallel to the fence and is clamped in position. Lower the blade so that it will cut through the stock.

3. Position the :

- Nose of the guard (drop the guard down) to just clear of the stock.
- The spreader (to prevent the material from coming together after ripping, binding and producing a kick back)
- The anti-kickback devices (position so that the anti-kickback fingers ride on the stock. The angle should be adjusted sop that if the stock is pulled out by hand, it will jam under the fingers and the stock cannot be moved).

4. Using a push-stick, feed the stock against the direction of rotation of the revolving blade from the side at which the blade rotates upward towards the operator.

5. For **in rip,** feed the material from right to left. for **out rip**, feed the material from left to right. Serious injury can result from feeding the material from the wrong side as the operator's hands can be drawn into the blade.

6. A person or helper standing on the infeed side if the blade can be at serious risk of injury from flying stock. It is important to be aware of this fact and stand clear.

7. When feeding the stock, hold it firmly against the table and the fence. Apply a firm, even pressure. Operators should never release the feed pressure until the cut is completed and the work piece has fully cleared the table.

8. Care must be taken when ripping material with thin, lightweight, hard or slippery surfaces because of the reduce efficiency of the anti-kickback devices.

5.4 Crosscutting

1. Radial arm saws used for crosscutting are pulled across the cutting area by means of a handle located to one side of the blade. The operator should stand, if possible, in the handle's side and pull the cutting head with the hand nearest the handle. The product being cut should be maneuvered with the other hand.

2. The blade should never be pulled beyond the pint necessary to make the cut as the back of the blade could lift the work and throw it over the fence.

3. Place material to be cut against the fence or a special jig, never cut freehand.

4. Never remove short pieces from the table until the saw has returned to its normal position at the rear of the table. Always use a stick, not your hands to remove any scrap from the table.

6. RECORDS/VERIFICATION OF UNDERSTANDING

6.1. Records

6.2. Verification of Understanding

6.2.1. A training master log will be maintained by ….

7. SUMMARY OF CHANGES

Revision #	Date	Change (include section #)	Issued By
1	03/12/2014	NEW	OHS Officer