

Subject:	Photon Sciences Safety Rules for Machine Shop Users (Course Code PS-MS-SHOP-RULES)					
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*Approval signatures on file with master copy.

[Revision Log](#)

Instructions: Read the material below and then close this document. You will receive credit for training through the BNL training system.

1. Only trained and qualified personnel are authorized to work in the machine shop.
2. Approved eye protection must be worn at all times while in the shop, regardless of whether you are a visitor or are working on the machinery. Eye protection includes protective goggles or safety glasses with side shields. A selection of these is available in the shop, next to the door.
3. Safety shoes are required when working in the machine shop. Slip-on combined toe and metatarsal covers are available for use in the User Machine Shop.
4. Long sleeves must be cuffed or rolled up, long hair must be tied back, and loose jewelry secured when working on machinery.
5. Gloves are not permitted while performing machine operations. Exceptions are made for lead work.
6. When at all possible, do not work alone in the shop outside normal business hours (8:30 am to 5:00 pm). Use the "buddy" or "two-man" system in order to have someone present in the shop to summon help in case of an accident. Contact the Control Room at x2550 if nobody is available.
7. Securely clamp down all work pieces in drill press and milling machines. This will prevent work from being lifted up or spun around with the cutters. Use all guards that are available and be wary of points of contact with rotating cutters and chucks.
8. Use push sticks provided (located below the start button on the band saw) or some other approved method for keeping fingers away from moving blades on band saws.
9. Use a vacuum cleaner and the "blaso-cut" water-soluble lubricant when machining non-metallic substances (e.g. Macor, micarta, phenolics, etc.) This will help control air-borne dust.
10. Do not machine, grind, or cut any radioactive or other solid toxic materials (e.g. Beryllium, asbestos) in the shop. Before machining lead, see the User Shop Manager.
11. Do not leave keys on chucks of lathes, drill presses, and milling machines. The key can be thrown out with great force when machinery is turned on. This also applies to wrenches used to tighten the cutting tools into the spindles of the milling machines.
12. Use a brush or wooden dowel to remove chips from the machining area. Chips can be sharp and hot.
13. Clean up the work area using brush and dustpan. Do not use compressed air to blow chips off machinery. Vacuum the machine and sweep the floor area of any remaining chips.
14. Do not attempt any unfamiliar operations. When in doubt, seek advice and help from those more experienced in the operation.
15. Follow guidelines posted on the walls of the shop and, in some cases, on the individual pieces of equipment, including the pre-use operational check.
16. In order to prevent injury to you and damage to the equipment, do not attempt to overload the capabilities of the machinery.
17. If equipment becomes inoperative while in use or is considered defective, turn the power switch to the "off" position, switch the corresponding breaker box to the "off" position, and place the pad lock on the breaker switch. Place a yellow "Caution: Do Not Operate" tag on the equipment, and notify the Machine Shop Manager. Caution tags are located by the PPE equipment.
18. Do not use damaged tooling, broken bits or unguarded tools. Report any damaged equipment to the Shop Manager.
19. No food or drink allowed in the machine shop area.

