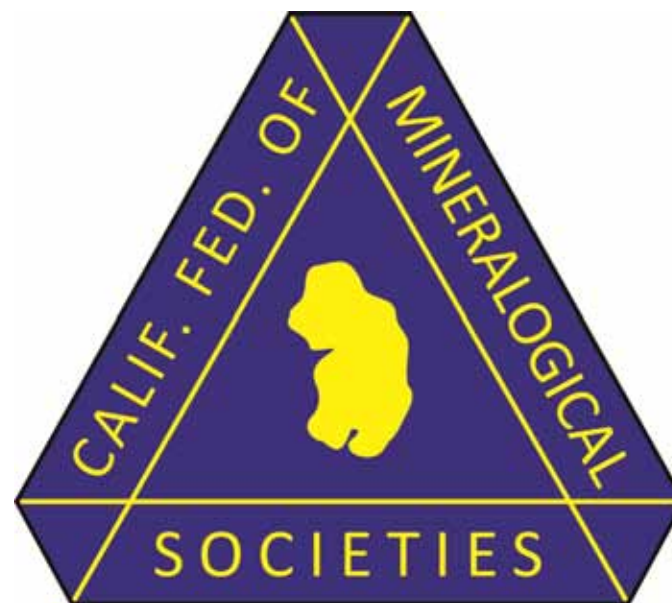


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CALIFORNIA FEDERATION OF MINERALOGICAL SOCIETIES



SAFE PRACTICES GUIDE

November 2017

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OUR MISSION

The California Federation of Mineralogical Societies (CFMS) was organized in 1936 to bring about a closer association of Clubs and Societies devoted to the study of Earth Sciences and the practice of Lapidary Arts and Crafts in the Western part of the United States.

The CFMS includes approximately 110 clubs and societies in California, Arizona and Nevada. Website: www.cfmsinc.org.

WELCOME !

The California Federation of Mineralogical Societies is committed to the Health and Safety of all its members. The purpose of this Safety Guide is to help societies and clubs develop their own safety procedures. Within this document you will find suggestions for the workshop and for field trips. Please use any suggestions that fit best with your society or club to achieve a safer environment for all.

Margaret Kolaczyk

Margaret Kolaczyk, President

This Safety Guide was developed in 2017 by the Safety Committee of the California Federation of Mineralogical Societies — Mark Nelson, Safety Committee Chair.

Updates to this Safety Guide are made as determined by the CFMS Safety Committee.

If your society/club has questions or suggestions, please contact the CFMS Safety Committee Chair at Safety@cfmsinc.org



Suggested Safety Tips and Responsibilities

The CFMS clubs and societies are encouraged to:

1. Provide a safe working shop location and to give reasonable guidance for field activities.
2. Provide members participating in shop and field activities with the information they need to safely control the hazards they will face in participating in these activities.
3. Provide close supervision by a competent supervisor.
4. Instruct their members in:
 - What to do in a fire or other emergency
 - Nearby first aid facilities
 - Prohibited or restricted areas
 - Workplace hazards
 - Other information they should know
5. Individuals are encouraged to comply with the safety rules, including:
 - Protecting their own health and safety and that of co-workers
 - Not to initiate or participate in the harassment of another member.
 - Cooperating with shop and field trip supervisors and others so designated by the club or society.
 - All members are encouraged to be responsible for the health and safety of workshop visitors, and to insure that they are aware of and follow all of the club's workshop safety rules and procedures.

Safety Committees & Duties

Lapidary clubs and societies are encouraged to form a Safety Committee for the purpose of maintaining safety standards within the club. Among their duties are:

- Regularly inspect the workplace.
- Conduct accident investigations.
- Deal with the Safety concerns of members.
- Meet regularly and return the minutes of each meeting to the club's board of directors.

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Safety Officer

Clubs are encouraged to appoint a safety officer, accountable to the board of directors, who is responsible for developing Safety regulations for members that are appropriate for the individual club's activities. The safety officer will, typically, provide some leadership in aspects of safety activities at the shop and in field activities. The safety officer takes an active roll in all aspects of safety within their club, including:

1. Ensuring that reasonable steps are taken to prevent accidents.
2. Being familiar with the club's policy pertaining to health and safety.
3. Encouraging safety policies to be followed by members.
4. Determining when safety meetings are held and that minutes are recorded.
5. Reporting and helping to investigate accidents.
6. Encouraging club officers to maintain a collection of Safety Data Sheets (SDS) — formerly known as Material Safety Data Sheets, or MSDS — for all potentially hazardous materials in use at the work shop in a place readily available for members to review.
7. Review all SDS and advise or train members in the safe use, storage and transportation of potentially dangerous products - including what to do in case of an accidental spill or other emergency.

Duties of the Club President

The club president should assist in maintaining the safety of all club members while engaged in club activities. The president should work to ensure that all safety policies and procedures are followed, including:

- Ensuring that all reasonable steps are taken to prevent accidents.
- Ensuring that safety standards and procedures are developed and maintained.
- Becoming familiar with the club's Safety Guide, and any revisions thereto, and ensuring they are followed.
- Reviewing accident reports, safety audits and other related material relative to health or safety.

Suggested First Aid Kit for Shop and Field

- A. It is strongly recommended that a club have members trained in emergency first aid. This is done by arranging training through instructors who have successfully completed a first aid training course approved by the American Heart Association, the American Red Cross or other recognized provider and who hold a valid certificate in first aid.
- B. Instructors can be found by contacting your local Red Cross or American Heart Association office, fire department or sheriff's search and rescue team.
- C. Clubs should keep record at the workshop of workers who are trained in first aid and post these names where they are accessible by all members.
- D. It is recommended that every workshop have a first aid kit on site. Each kit should contain the following, at a minimum:
 - 1. 10 antiseptic cleansing towelettes, individually packaged
 - 2. 25 sterile adhesive dressings, individually packaged
 - 3. (10) 4" x 4" sterile gauze pads, individually packaged
 - 4. (2) 4" x 4" sterile compress dressings, with ties, individually package
 - 5. (2) 6" x 6" sterile compress dressings, with ties, individually packaged
 - 6. 2 conforming gauze bandages – 30" wide
 - 7. 3 cotton triangular bandages
 - 8. 5 safety pins - assorted sizes
 - 9. 1 pair of scissors
 - 10. 1 pair of tweezers
 - 11. (1) ½" x 15' roll of adhesive tape
 - 12. 1 crepe tension (ACE) bandage – 3" wide
 - 13. 1 resuscitation barrier device with a one-way valve
 - 14. 4 pairs of disposable surgical gloves
 - 15. 1 first aid instruction manual (condensed)
 - 16. Inventory of kit contents
 - 17. 1 waterproof waste bag
 - 18. Several quart and gallon size slide-lock plastic bags
 - 19. A metal or plastic box (or a compartmented nylon zippered bag for field use) marked as "First Aid" to carry the first aid kit items.

Compliance with club safety standards is necessary to maintain a safe and healthy lapidary environment.

Sample 4 Field Trip Liability Waiver pg 2

Trip Location: _____

Trip Date(s): _____

INFORMED CONSENT AND ASSUMPTION OF RISK WAIVER OF LIABILITY SIGN-IN SHEET

"I hereby acknowledge that I have read and understand the information provided in the Informed Consent/Assumption of Risk and Waiver of Liability form on the reverse side."

Signature

Date

_____	_____
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Sample 4 Field Trip Liability Waiver pg 1

Xxxxx MINERAL & GEM SOCIETY

INFORMED CONSENT - ASSUMPTION OF RISK - WAIVER OF LIABILITY*Trip Location:* _____*Trip Date(s):* _____

Please read the following information before beginning the field trip or activity. Sign and date the accompanying sign-in sheet to acknowledge that you have read and understand the information presented below.

I understand that the field trip/activity that I am participating in, of the above named Society, may include one or more of the following hazard (s) that may result in personal harm:

Unpredictable and Dangerous Environmental Conditions/Hazards, including but not limited to, snow, rain, wind, very cold and very hot temperatures, lightning, altitude, loose rock, falling rock, rock slides, avalanches, river hazards, mud slides, mud, ice, other slippery conditions and contact with poisonous reptiles, wild fauna and toxic plants.

I understand the risks inherent in all outdoor activities (including high altitude activities) existing in the environment, either natural or man-made.

I understand that I am required to use appropriate safety equipment pertinent to the field trip activity in which I will be participating. I accept full responsibility for my actions and accept liability for any resulting damages or injuries.

By participating, I am assuming the risks inherent in this field trip or activity and I am releasing the above named societies, their officers, directors and individual members, from any liability for claims or lawsuits by the undersigned participant, arising out of this field trip activity. By signing this waiver of liability I understand that I release all property owners (private land owners and mining claimants) and lessees of any liability or responsibility for any accidents, injuries, problems or any other unfortunate incidents that may occur during this activity on their property. I have read all of the aforementioned information and understand any and all of it. Any questions, which have occurred to me, have been answered to my satisfaction. I am participating in these activities of my own free choice.

If I am unable to clearly communicate in any way, or a minor child for whom I am giving consent is involved, I authorize the trip leader to consent on my behalf to any emergency medical procedure deemed necessary by a treating physician.

If the participant is under 18 years or age, this form must be read and signed by a parent or legal guardian before participating in this field trip or activity.

Suggested Workshop Safety Guidelines**Workshop Safety**

Due to safety concerns, proper instruction on equipment use is strongly suggested for everyone who participates. Proper lapidary procedures should be followed. Club workshop safety guidelines are designed to reduce the health and safety risk when working with some of the materials of our hobby and to ensure that all newcomers are aware of potential hazards. As with any guideline — common sense should be practiced. If you have not worked with a particular material before, check with an experienced member about specific precautions to be taken while working with the material.

Lapidary clubs and societies are encouraged to develop a set of written rules and safety practices that are distributed and acknowledged in writing by all users of the workshop. The safety items listed herein are designed to help in this effort.

Duties of the Workshop Staff

1. Comply with all Club Safety Procedures and Policies.
2. Be responsible for working safely and carrying out their duties with skill and care as to not cause accidental injury to themselves, fellow members, visitors or the general public.
3. Immediately report all injuries, near misses or potential hazards to a supervisor.
4. Know the location of all fire extinguishers, fire alarms or other warning devices.
5. Ensure all personal safety equipment is being used properly.
6. Never engage in or permit horse play or tomfoolery.
7. Maintain work areas in a clean and orderly condition.
8. Shop personnel should be regularly trained, safety topics reviewed and hazard assessments performed.
9. It is recommended that continued violations of a club's shop rules or continued abuse of equipment should be grounds for suspension or revocation of the privilege of using the shop.

GENERAL WORKSHOP AREA SAFETY GUIDELINES

The following are recommended guidelines for lapidary clubs to use in creating their own guidelines and rules as they may apply to their actual conditions:

1. It is recommended that anyone who enters the shop have completed a shop safety orientation.
2. When in doubt.... **ASK**.
3. Anyone who works in the shop should be a current Lapidary Club member and sign in at the check-in desk where current club membership and waiver are verified.
4. Visitors are to be escorted by staff while on club property. Visitors should be supervised at all times, and should maintain a safe distance from working equipment. Eye protection should be worn by visitors when observing machines in operation.
5. It is recommended that lapidary shop equipment not be used by anyone who has not signed a liability waiver and shown proficiency with the equipment.
6. Children should be supervised by an adult when visiting the shop.
7. The club or society will determine a minimum age for children to be able to participate in the workshop. It is suggested that Junior members be supervised by a parent, guardian or other adult member in order to be permitted to use the machines.
8. Don't rush or take chances. Obey all safety rules.
9. Remember that a clean workplace and workstation, free of clutter and scrap material, is the first step to performing the task safely!
10. Spaces between and under benches, cabinets and equipment are to be kept accessible for cleaning.
11. Walkways/floor areas are to be kept clear of obstructions and trip hazards (such as rock material or electrical cords).
12. Keep the floor around machines clean, dry and free from trip hazards. Do not allow stone chips to accumulate.
13. All areas must have adequate and operational lighting.
14. First aid kits are to be available and stocked.
15. Compliance with seismic safety is to be maintained.
16. Stairways are to be maintained in a safe condition (no worn or broken treads). If handrails are present see that they are secure, and in good condition. Landings are to be clear of obstruction.

Sample 3 - Shop Liability Waiver, pg 4**10. BE AWARE OF MEDICATIONS**

If you are taking any medication with warnings of drowsiness or not operating machinery, you may not work in the machine shop.

Working Protocol

- Before you start the machine:
 - Study the machine. Know which parts move, which are stationary, and which are sharp.
 - Double check that your work piece is securely held.
 - Sufficiently tighten tools and work pieces in vices, holders and chucks.
 - Watch for clearances between tools and vises/chucks.
- Machine Use:
 - If you do not know how to do something, ASK!
 - Be aware what is going on around you.
 - Do not hurry. If you catch yourself rushing, slow down.
 - Do not rush speeds and feeds (you may damage your part, the tools or machine itself).
 - Listen to the machine. If something does not sound right, turn the machine off
 - Remove chips with pliers or a brush, not your hands.
 - Do not leave machines running unattended.
- After you are done with machining:
 - Clean up machines after you use them! A dirty machine is unsafe and uncomfortable to work on.
 - Do not use compressed air to blow machines clean.
 - Any tools used in your work must be returned to their regular storage location.
 - If a piece of equipment breaks while you are using it, or if there is any problem with the machinery, you must report it. Do not walk away; there is no penalty for breaking the tool.

BE SAFE, USE COMMON SENSE AND HAVE FUN !

I, The undersigned, acknowledge that I have read and comprehend the safety rules and working protocol as outlined above. Furthermore, I agree to abide by these rules as set forth.

Signature (If 18 or older): _____ Date: _____

Signature of Parent or Guardian: _____ Date: _____

Signature of Minor: _____

This document will be kept on file and will govern future use. It may not be superseded without a majority vote of the Executive Committee and Board of Directors of XXXXX Gem and Mineral Society.

Sample 3 - Shop Liability Waiver, pg 3

I HAVE READ AND UNDERSTAND EACH AND EVERY TERM, AND AM VOLUNTARILY SIGNING THIS AGREEMENT.

Signature: _____ (If 18 or older)

Signature of Parent or Guardian: _____

SECTION 3-ACKNOWLEDGMENT AND AGREEMENT TO FOLLOW SHOP RULES:

Xxxxxx Gem & Mineral Society Lapidary Shop Safety Rules and Working Protocol
Children under 6 are not permitted in the shop when equipment is in use. All those under the age of 18 must have a signed waiver executed by their parent or guardian. Children under the age of 16 must be accompanied by an adult and supervised at all times.

I agree to abide by all of the following rules and all rules posted in the shop:

SAFETY RULES

Safety is the first concern. In a shop environment there exists the possibility of serious injury. This can include the loss of a finger, limb, eye, or even life. Safety training and adhering to safe practices will prevent injuries. By planning out work, keeping a clean work environment, and executing it safely, a job can be done better and faster.

1. EVERYONE MUST ALWAYS WEAR SAFETY GLASSES OR EQUIVALENT IN THE SHOP.

You must wear safety glasses, even when you're not working on a machine. A chip from a machine that someone else is working on could fly into your eye. Safety glasses are provided for your use, please be sure and return them before you leave.

2. NEVER WORK IN THE SHOP ALONE.

There must be two persons in the shop at all times machinery is in use.

3. NEVER WORK IN THE SHOP IF YOU ARE TIRED.**4. OBEY THE SHOP RULES AT ALL TIMES.**

Be aware of the current list of shop rules. They are posted in the shop.

5. IF YOU DON'T KNOW HOW TO DO SOMETHING, ASK!**6. THERE IS A ZERO TOLERANCE FOR HORSEPLAY.**

Fooling around in the shop can be very dangerous and is grounds for immediate dismissal from the shop.

7. CHECK YOUR HAIR, CLOTHES AND JEWELRY.

Before entering the shop, check the following:

- If you have long hair or a long beard, please tie it up. If your hair is caught in spinning machinery, it will be pulled out if you're lucky. If you're unlucky, you will be pulled into the machine.
- No loose or hanging clothing. Ties, scarves, loose sleeves, shirttails etc. are prohibited
- Please remove your jewelry. A ring or bracelet can get caught or in some cases can be an electrical contact.
- No gloves! Only use gloves for material handling — not for machine operation.

8. WEAR APPROPRIATE SHOES.

- No open toed sandals. Wear shoes that give a sure footing. If you are working with heavy objects, steel toes are recommended. A pair of stiff leather work boots or hiking boots can be adequate.

9. NO PERSONAL MUSIC DEVICES.

A cassette player, MP3 or other such device should not be worn. If you are listening to music, you can't hear the machine or someone trying to warn you.

17. Ambient temperature is to be comfortable.
18. Keep all areas free from odors.
19. Noise levels are to be acceptable or controlled to an acceptable level.
20. Hand basins or alternative means of decontaminating hands shall be available within the workshop.
21. Facilities for the storage of outer garments and personal items are to be maintained outside the working area.
22. Do not work in the shop if you are tired, in a hurry or when taking drugs that induce drowsiness. Running is not permitted except in extreme emergencies.
23. Smoking is not permitted in any part of the workshop or office. You may only smoke in designated areas.
24. Hand tools are to be used for their intended purpose only.
25. Horseplay, fighting or tomfoolery is strictly prohibited on club premises.
26. All spills will be immediately cleaned up and reported.
27. Drawers and filing cabinets will be kept closed when not in use.
28. Filing cabinet drawers are to be filled from the bottom up or the cabinet is to be securely fastened or anchored.
29. Aisles are to be kept clear at ALL times.
30. Do not unload a heavy load alone under any circumstances, if someone can not help you then wait until someone is available.
31. Hazard Warning Signs — Whenever possible, warning signs should be displayed where a potential hazard may cause injury. Warning signs must be strictly adhered to.
32. Only closed-toe, flat-heel shoes are to be worn in the shop. No one wearing sandals should be allowed to enter any shop area.
33. Report all injuries to a shop supervisor. Post conspicuously, and make members aware of, the emergency phone number to call EMS.
34. Proper personal protective equipment is to be available and used.
35. Ventilation is to be adequate. Most lapidary activities, including sawing, grinding, polishing and gluing are best done safely in a well-ventilated environment. Provide local exhaust and ventilation as required.
36. Store frequently used items within easy reach between knee and shoulder height, heavy items stored at waist height.
37. Provide step ladders or stools to access items stored on high shelves. Maintain them in good condition.
38. If heavy or awkward items and loads are to be moved, provide appropriate materials-handling equipment.

39. It is recommended that no animals be allowed at the workshop except for legitimate service animals.
40. All workshop participants are expected to help clean the workshop before leaving. This includes sweeping the floor, emptying the waste baskets, stocking the refrigerator, cleaning the sink, making sure the restrooms are clean, dusting and polishing equipment. If in doubt of what to do or how to help - please ask a shop supervisor.

GENERAL MACHINE SAFETY RECOMMENDATIONS

It is basic common sense that all who use a machine should be required to read the manufacturer's instructions before using the machine! The following standard shop rules can be adapted to use by your club:

1. Use of equipment and tools is at the risk of the user.
2. Maintain machines and equipment in good condition.
3. Do not eat in the area of machine use.
4. No work may be performed using power tools unless at least two people are in the shop area and can see each other.
5. Proper personal protective equipment is to be available and used.
6. Loose clothing, long hair, etc must be contained so that it cannot be caught in rotating equipment.
7. Do not wear loose clothing, jewelry, gloves, etc. when operating shop equipment - wear appropriate clothing for the job.
8. Never use a rag near moving machinery.
9. Only work on one stone at a time. This is done in order to assure both safety and that all members have an opportunity to use the equipment during the shop open hours.
10. If you have not worked with a particular material before, check the SDS or consult with an experienced member about specific precautions to be taken while working with the material. Also, ask a shop supervisor before cutting any unusual material.
11. Always check to see if a machine is clear of other objects before using it and notify a supervisor if you find equipment inoperable or in disrepair.
12. All machines must be operated with all guards and shields in place.
13. Think through the entire job before starting work, and ask a supervisor to check the preparation of your rock in a saw or your use of a polishing unit or grinder.
14. Keep the floor around machines clean, dry and free from trip hazards. Do not allow stone chips to accumulate.

Sample 3 - Shop Liability Waiver, pg 2

LAPIDARY ACTIVITIES MAY INCLUDE THE HANDLING OF PETROLEUM PRODUCTS, CHEMICALS, ACIDS, AND OTHER HAZARDOUS MATERIALS. SOME ROCKS AND MINERALS ARE HAZARDOUS IN NATURE AND MAY CONTAIN TOXIC SUBSTANCES OR ELEMENTS SUCH AS ASBESTOS OR ARSENIC. BREATHING ROCK DUST CAN LEAD TO SILICOSIS AND OTHER SERIOUS CONDITIONS. These descriptions are not all of the risks associated with the use of and present in THE SHOP and the above list in no way limits the scope of this Agreement.

I also realize proper instruction in the use of the contents of THE SHOP is a necessity. (initial) _____
My presence in and use of the facilities is entirely voluntary and with a full understanding that all such usage involves all manner of hazards and dangers.

I ASSUME ALL RISK AND RESPONSIBILITY FOR ANY HARM, LOSS, PROPERTY DAMAGE, PERSONAL INJURY, OR DEATH TO ME OR OTHERS FROM OR IN ANY WAY RELATED TO MY USE OF OR PRESENCE IN THE SHOP'S CLASSES, FACILITIES, EQUIPMENT, OR SUPPLIES.
_____(initial)

I have a responsibility to :myself and other users of THE SHOP, to conduct myself in a safe manner. If I am unsure at any time, I will ask a SHOP Supervisor. I am in good health and have no condition that will affect my safe use of the facilities. I will not use THE SHOP while under the influence of drugs or alcohol or while in any other condition that might impair me. _____ (initial)

I am responsible for checking, ensuring and maintaining the safety and safe operating condition of any and all equipment, or devices (including, but not limited to, vises, clamps, hand tools, blades, disks, belts, pulleys, wheels, shields, guards, etc) that I may utilize while present in or using THE SHOP, regardless of where or from whom I may have obtained such equipment or devices. I use and accept items received from THE SHOP "as is" and use them at MY OWN RISK. _____(initial)

.. I HEREBY FOREVER WAIVE, RELEASE, AND DISCHARGE THE SHOP FROM ANY AND ALL LIABILITIES, CLAIMS, DEMANDS, OR CAUSES OF ACTION WHATSOEVER FOR ANY HARM, LOSS, DAMAGE, PROPERTY DAMAGE, PERSONAL INJURIES OR DEATH DUE TO ANY NEGLIGENCE, GROSS NEGLIGENCE, OR ANY OTHER CAUSE (INCLUDING, BUT NOT LIMITED TO THE NEGLIGENCE OR GROSS NEGLIGENCE OF THE SHOP, OR ITS AGENTS, OR OTHERWISE) RESULTING FROM, ARISING OUT OF, OR IN CONNECTION WITH MY PRESENCE IN OR USE OF THE SHOP OR ITS EQUIPMENT. _____(initial)

I AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE SHOP FROM AND AGAINST ANY CLAIM RESULTING FROM, ARISING OUT OF, OR IN CONNECTION WITH MY PRESENCE IN AND/OR USE OF THE SHOP, ITS FACILITIES, EQUIPMENT, OR DEVICES. _____ (initial) I UNDERSTAND THAT BY SIGNING THIS AGREEMENT, AMONG OTHER THINGS, I SHALL HAVE (a) NO CLAIMS WHATSOEVER AGAINST, (b) NO RIGHT TO SUE, AND (c) NO RIGHT TO RECOVER ANY DAMAGES OR OTHER COMPENSATION FROM THE SHOP. _____ (initial)

THE SHOP has no responsibility for lost, damaged or stolen items. ____ (initial)

I give THE SHOP permission to use my likenesses (photo or video) for promotional purposes. If any term or provision hereof is invalid, illegal or unenforceable, the invalid, illegal or unenforceable term or provision shall be stricken only to the minimal extent necessary, and the remaining terms and provisions hereof shall remain unimpaired. No provision hereof can be waived or changed in any way (notwithstanding any purported change on this form) except expressly in writing signed by an officer of THE SHOP. All terms and paragraphs apply even if not initialed. This Agreement has no expiration date. ____ (initial)

Sample 3 - Shop Liability Waiver, pg 1**xxxxx Gem & Mineral Society
Lapidary Shop**

NOTE: YOU MUST BE A MEMBER IN GOOD STANDING OF xxxxx GEM & MINERAL SOCIETY, UNDER THE SUPERVISION OF A QUALIFIED MEMBER TO USE THE SHOP FACILITY AND EQUIPMENT.

SECTION 1 - MEMBER INFORMATION (PLEASE PRINT CLEARLY):

Today's Date _____ Date of Birth _____
 Name _____
 Address _____
 City _____ State _____ Zip _____
 Phone () _____ E-mail _____
 Emergency Contact Name and Phone _____

Information is for xxxxx GMS use only and will not be shared.

What areas of the hobby are you most interested in? () Cutting () Carving () Cabochons
 () Faceting () Mineral Mounts () Fossil Prep () Metal Smith () Jewelry Design () Lost Wax Casting
 () Beading () Other - specify _____

Prior lapidary experience: Number of years __ Type of experience: __professional; __hobby

Do you own any lapidary equipment? __ Yes; __ No

What Kind? _____

What is your experience level? . __ Beginner; __Novice; __ Intermediate; __Expert; __ Master

Would you be willing to give instruction in the use of this type equipment? __ Yes; __ No; __ Perhaps

NOTE! IF YOU ARE UNDER THE AGE OF 18 STOP HERE! THE FOLLOWING MUST BE FILLED IN BY A PARENT OR GUARDIAN. YOU MUST BE AGE X OR OLDER TO USE THESE FACILITIES. CHILDREN UNDER THEAGE OF XX MUST BE ACCOMPANIED BY A PARENT OR GUARDIAN WITH AUTHORITY TO EXECUTE THIS DOCUMENT AND SHALL BE SUPERVISED AT ALL TIMES!

Name of Parent or Guardian _____
 Address _____
 City _____ State _____ Zip _____
 Phone () _____ E-mail _____
 Relationship to person in Section 1, above: _____ Your Date of Birth _____

SECTION 2-AGREEMENT (1) FOR ACKNOWLEDGMENT OF RISK, (2) FOR WAIVER, DISCLAIMER AND RELEASE OF LIABILITY, (3) NOT TO SUE, AND (4) FOR INDEMNITY .

I, on behalf of myself and on behalf of my heirs, personal representatives, spouse, next of kin, successors and assigns, hereby understand, acknowledge, and voluntarily agree with Xxxxxxx Gem and Mineral Society,

its members, officers,' directors, agents, insurers and/or benefactors, and assigns (hereinafter collectively THE SHOP") as follows:

THE USE OF POWERED EQUIPMENT BEARS INHERENT RISK OF INJURY WHICH INCLUDES BUT ARE NOT LIMITED TO CUTS, ABRASIONS, LACERATIONS, PUNCTURE WOUNDS, BURNS, EYE INJURY, ETC. IN MORE SEVERE CASES, LOSS OF DIGITS OR EYESIGHT MAY OCCUR IF SAFETY RULES ARE NOT STRICTLY ADHERED TO.

15. If you are unfamiliar with a piece of equipment please check with an on duty monitor or supervisor. The monitors are there to assist you in the safe and proper usage of club equipment. Some club equipment needs a User Certification to operate.
16. Always shut off a machine when switching between set-ups, changing blades or discs, making adjustments, or when not in use.
17. Set up your machine on a sturdy, level work surface that is water tolerant and at a comfortable height for your frame. Take care to prevent water from running down the shaft and into the electric motor or splashing onto electric cords. Fill reservoirs only to the indicated levels and keep all drains open and running free.
18. Never remove metal chips, turnings, or shavings with your hands - use a brush or scraper.
19. Lapidary saw blades are expensive and can easily be damaged. Please ask one of the workshop supervisors to check your placement of rocks in the saws and your operation of the equipment so that it can be assured that they are being operated correctly and safely. Unintended movement of a rock may damage the blades and the expensive lapidary equipment.
20. Never use any of the diamond discs, blades, or drums dry. Doing so will permanently damage them and may well damage the slabs you are working. If you are not sure how to do this properly, please ask the shop supervisor or one of the experienced members.
21. All belt-driven machines must have proper belt guards. All other machine guards are to be in place and required warnings posted.
22. Machines must be shut off, locked and tagged (Lockout/Tagout procedures) when servicing electrical equipment.
23. Do not strike a hardened tool or any machine with a hammer.
24. Be respectful to the Club and its members by cleaning up after yourself. **EACH PERSON** that uses a piece of equipment shall clean that equipment. When finished using equipment such as saws, grinders, burnishers, buffing wheels, etc., clean up! Please leave your work station clean for the next person to use. This is to mean the piece of equipment and the entire work area, including the tabletop, sponges, aprons, catch trays, floor, etc.

HAND SAFETY:

1. Rough rock has a tendency to have sharp edges, especially obsidian. A thick leather palm glove is best when handling most rocks to be sawn or when removing slabs from the drying bins. When washing obsidian be exceptionally careful of points where the saw stopped and the slab fell from the host rock.
2. Do not use your bare hands to remove stone chips and small grit from the machine - use a brush.
3. Do not work small pieces on grinding wheels with your hands. Use Dop sticks to polish your stones. Your hand can easily slip while holding a stone and receive a nasty cut or burn from a grinding wheel.
4. Always secure the work piece with clamps or a vise.
5. When using pickle baths or etching acids, make sure you wear some type of rubber glove to reduce the risk of contact with the skin.

EYE SAFETY

Remember: Protection of our eyes is OUR responsibility!

1. Protective Eye Wear: It doesn't take much to damage the eye sufficiently that it will not recover. Safety glasses are certainly a small price to pay for a lifetime of sight and should be worn when using any open saw or grinder. Small chips will often pop up and out from the blade. If you are trimming a cab design, these chips will often strike the face and possibly the eye. It is suggested to use a face shield in conjunction with safety glasses for the added protection for the face. If you use acids or caustic type cleaners it is best to combine each of the above with the use of goggles as well.
2. You should always wear safety glasses or goggles, before using any of the machine shop equipment. Wear safety glasses that fit well and that wrap around the sides of your eyes.
3. Make sure you know how to properly use machines.
4. Always brush, shake, or vacuum dust and debris from hats, hair, forehead and your brow before removing protective eyewear.
5. Don't rub eyes with dirty hands or clothing.
6. Have the club or society provide safety equipment for eyes, ears, and nose. Encourage members to utilize them.
7. Supply clean safety glasses, ear protection, and dust masks at working areas of the shop.
8. Clean eyewear regularly.

Sample 2 - General Liability Waiver**PARTICIPANT RELEASE OF LIABILITY
READ BEFORE SIGNING**

In consideration of being allowed to participate in any way in the sanctioned activities of the **Xxxx Society**, the undersigned acknowledges, appreciates, and agrees that:

The risk of injury from the activities involved in these programs is significant, including the potential for permanent disability and death - and - while particular rules, equipment, and personal discipline may reduce this risk, the risk of serious injury to me does still exist;

and,

I KNOWINGLY AND FREELY ASSUME ALL SUCH RISKS, both known and unknown, **EVEN IF ARISING FROM THE NEGLIGENCE MY OWN ACTIONS** or **THE ACTIONS OF OTHERS**, and assume full responsibility for my acts during such participation;

and,

I willingly agree to comply with the stated and customary terms and conditions for participation. If I observe any concern in my readiness for participation and/or in the program itself, I will remove myself from participation and bring such to the attention of the nearest official immediately;

and,

I, for myself and on behalf of my heirs, assigns, personal representatives and next of kin, **HEREBY RELEASE** the **xxxxxx Society**, its officers, officials, agents, and/or employees, other participants, sponsoring agencies, sponsors, advertisers, and if applicable, owners and lessors of premises used to conduct the various activities and events - **WITH RESPECT TO ANY AND ALL INJURY, DISABILITY, DEATH**, or loss or damage to person or property incident to my involvement or participation in these programs, **WHETHER ARISING FROM THE NEGLIGENCE OF** - the **xxxxxx Society, OR OTHERWISE**, to the fullest extent permitted by law.

I, for myself and on behalf of my/our heirs, assigns, personal representatives and next of kin, **HEREBY INDEMNIFY AND HOLD HARMLESS** the **xxxxxx Society** from any and all liabilities incident to my involvement or participation in these programs, **EVEN IF ARISING FROM THEIR NEGLIGENCE**, to the fullest extent permitted by law.

I HAVE READ THIS RELEASE OF LIABILITY AND ASSUMPTION OF RISK AGREEMENT, FULLY UNDERSTAND ITS TERMS. UNDERSTAND THAT I HAVE SURRENDERED SUBSTANTIAL RIGHTS BY SIGNING IT AND SIGN IT FREELY AND VOLUNTARILY WITHOUT ANY INDUCEMENT.

Signature: _____ Date _____:

Print Name: _____

Address: _____

Telephone: _____

Sample 1 - Shop Liability Waiver

INFORMED CONSENT/ASSUMPTION OF RISK/WAIVER OF LIABILITY for XXXX Mineral & Gem Society Lapidary Activities

Name: _____

Address: _____

Please read the following information before beginning any lapidary activities. Sign and date this form to acknowledge that you have read and understand the information presented below.

I understand that the lapidary activity in which I intend to participate, sponsored by the above named Society, may include one or more of the following hazard(s) that may result in personal harm:

Premises risks: The premises at which lapidary activities are conducted are a xxxx-owned property and maintained by xxxxx . On occasion, floors may become slippery when wet and obstructions may exist. Caution must be used when accessing any of the facilities.

Equipment risks: There are many different kinds of equipment used in lapidary, each involving unique potential hazards (e.g. dopping equipment, cabochon machines, hand-held tools and files, etc.). Defects may exist in such equipment which may result in bodily injury.

Operational risks: when participating in lapidary activities, my personal conduct, as well as the conduct of others, may result in injury to myself or others.

I agree to follow all directives given by society personnel and to not proceed with any activity without having first received appropriate instruction. I understand that I am required to use appropriate safety equipment pertinent to lapidary activities in which I will be participating. I accept full responsibility for my actions and accept liability for any resulting damages or injuries.

By participating, I am assuming the risks inherent in lapidary activities and am releasing the above named owners and societies, their officers, directors and individual members, from any liability for claims or lawsuits by the undersigned participant, his or her heirs or assignees, arising out of this activity. I have read all of the aforementioned information and the list of safety rules accompanying this form and understand any and all of it. Any questions which have occurred to me have been answered to my satisfaction. I am participating in these activities of my own free choice.

If the participant is under 18 years of age, this form must be read and signed by a parent or legal guardian before participating in the lapidary activity.

Signature of Participant

Date

Signature of Parent/Legal Guardian

Date

9. Make sure that an emergency eye wash kit, station or other means of flushing an object from an eye is functional and easily accessible.
10. Know First Aid for Eye Injuries:
 - Specks in the Eye: Don't rub the affected eye; Flush the eye with lots of water; See a doctor if the speck doesn't wash out, or if pain or redness continues.
 - Chemicals in the Eye: Immediately flush the eye with water or drinkable liquid; Open the eye as wide as possible; Continue flushing for at least 15 minutes; Seek immediate medical attention if pain or redness continues. There are some powdered chemicals and acids for which flushing is not recommended, so know the treatment for your particular chemicals.
 - Cuts, Punctures, and Foreign Objects Embedded in the Eye: Unlike with specks of dust or metal, be sure not to wash out the affected eye; Don't try to remove a foreign object stuck in the eye; Seek immediate medical attention.

FIRE AND LIFE SAFETY

1. Keep exits and fire doors clearly marked and unobstructed.
2. Emergency equipment is to be accessible and stored appropriately.
3. Fire extinguishers should be available and certified.
4. Fire alarm audiovisual devices should be easily seen and free of obstruction.
5. Enforce a "No Smoking" policy.
6. Train supervisory shop personnel in emergency preparedness procedures.
7. Place materials that are subject to spontaneous combustion, such as oily rags and paint rags, in approved oily waste cans that are emptied daily.
8. Locate a first aid kit in the near vicinity and identify personnel who are trained to use it.

ELECTRICAL SAFETY

1. Maintain electrical items in a safe working condition.
2. Check the condition of power cords and plugs on portable tools before using them. Do not use a tool that has a worn or damaged power cord/plug.

3. Only use electrical cords in an approved manner (no temporary or makeshift leads/power boards, double adaptors or overloading).
4. Maintain clearance around electrical and circuit breaker panels and see that they are labeled.
5. Maintain safe access to all electrical switches and disconnects.
6. Test electrical machines and other equipment annually.
7. Maintain electrical outlets, power leads and switches are in good condition (not frayed, taped or otherwise broken).

RESPIRATORY SAFETY

Lapidary clubs and societies are encouraged to read and understand the recent OSHA New Standard for Silica. This is available at <https://www.osha.gov/silica/>. Dust masks are encouraged when working with any dry or wet stone polishing to avoid prolonged exposure to water vapor containing microscopic particles of rock. The general health hazards are related to diminished lung capacity with symptoms similar to that of Silicosis. Some types of rock materials we work with pose potentially higher levels of respiratory hazards and lapidary personnel should be particularly mindful while working with them. Some of these materials are:

Actinolite - fine fibrous dust particles from grinding without the use of water can cause lung deficiencies

Beryllium (Tiffany Stone) - avoid breathing dust or vapors containing beryllium compound; causes berylliosis

Chrysocolla - copper based ore; when exposed to copper-ore dust in concentrations it can cause respiratory irritation leading to other health related issues

Covellite - copper based ore (see Chrysocolla)

Green Petrified Woods - contains chromium. Avoid inhaling dust. Chromium VI is known to be toxic

Malachite - copper based ore (see Chrysocolla)

Quartz - silica fine dust particle from sand blasting or long term inhalation of water vapor containing silica particle can cause silicosis

Serpentine - when exposed to serpentine dust in concentrations it can cause respiratory irritation leading to other health related issues.

Tiger Eye - fine fibrous dust particles from grinding without the use of water can cause lung deficiencies

Turquoise - copper based ore (see Chrysocolla)

the new hazards is the widespread growth of a plant that threatens the unwary with weeks of pain and irritation suffering. The Poodle Dog Bush, or *Turricula parryi*, is endemic to the California region and is now being found in chaparral from the southern Sierra Nevada and San Joaquin Valley southwards to Baja California.

14. Research the weather. Desert, mountain and coastal areas are often subject to flooding when rain occurs far from the area where a field trip is taking place. Consider advising the field trip leader of potential weather conditions that may affect the safe operation of the trip.

EYE CARE DURING FIELD TRIPS

The risks of eye injuries during field trips in the lapidary hobby are as important as those in the lapidary shop. In our lapidary shops we have spinning wheels loaded with carbide or diamond specks - grinding tiny particles off of stones and metal. On field trips we are often in a dusty environment. We reach through branches with many small tips, dust and pollen specks and we chip at rocks with a steel pick hammer. Remember: Protection of our eyes is OUR responsibility! Some tips for eye safety are:

- A. When in brush or chipping specimens from matrix - wear safety glasses that fit well and that wrap around the sides of your eyes.
- B. Always brush, shake, or vacuum dust and debris from hats, hair, forehead and your brow before removing protective eyewear.
- C. Don't rub eyes with dirty hands or clothing.
- D. Clean eyewear regularly.

SOME FIELD TRIP BASIC SAFETY SUPPLIES

Always travel with basic safety supplies and your field trips will have an extra chance of being memorable in a good way!

1. Personal medications - and extras - in case your return is delayed.
2. Insect and tick repellent.
3. Sunscreen, sunglasses and safety glasses.
4. Food and snacks.
5. Water - more drinking water than you think you can use - about one liter per hour of field time.
6. Extra water.
7. Walking stick for balance and for turning over rock specimens.
8. Personal First-aid kit, hand sanitizer, whistle and signal mirror.
9. Maps and a compass.

- Use a sunscreen lotion with a high SPF (sun protection factor) rating.
4. Drink plenty of water and natural juices, even if you don't feel thirsty. Even under moderately strenuous outdoor activity, the rate your body can absorb fluids is **less** than the rate it **loses** water due to perspiration. However, if you have epilepsy or heart, kidney, or liver disease; are on fluid-restrictive diets; or have a problem with fluid retention should consult a doctor before increasing liquid intake.
 5. Avoid alcoholic beverages and beverages with caffeine, such as coffee, tea, and cola. Alcohol and caffeine constrict blood vessels near the skin reducing the amount of heat the body can release. Although beer and alcohol beverages appear to satisfy thirst, they actually cause further body dehydration.
 6. Eat small meals more often. Avoid foods that are high in protein because they increase metabolic heat. Avoid using salt tablets, unless directed to do so by a physician.
 7. Use cool, wet towels between breaks on a field trip.
 8. Learn the symptoms of heat disorders and know how to give first aid.
 9. Do not leave children or pets in a closed vehicle, even for a few minutes.
 10. Remember that often our field trips are widespread and offer no shade! A hat or head covering with a large brim will help slow overheating and water loss.
 11. Shade: Wear a wide-brimmed hat to keep your face and head cool. Baseball caps provide little protection except for the face. A hat should protect the neck, face and ears. Keeping your head shaded will help reduce evaporation and sunburn.
 12. Trip and fall. The second most serious danger on nearly every field trip is that of tripping and falling. We get so fixated on looking for that special crystal or jasper one moment that the next moment we are wondering what that hard rock is doing on our back – and we realize that it is the ground! In a flash our life potentially changes. Look where you put your hands and feet. Watching where you step will help you keep your balance. Boots or sturdy footwear will help avoid slipping and falling accidents. Also, nature's small critters like the safety and shade of rocks and bushes and get defensive when they get stepped on or their rock shelters are overturned.
 13. Be aware of the plant hazards in the area where you will be collecting. Poison Oak and other plants can cause severe skin reactions. One of

Glues, Adhesives, Polishing Compounds and Pastes - Keep from mucus membranes and prolonged exposure to the skin. Seek medical attention if splashed in the eyes. For some types of glues a respirator is recommended (refer to manufacturer's safety data).

CHEMICAL SAFETY

1. Chemical bottles should be kept labeled correctly (e.g. not handwritten). Provide the label with the chemical's common name in addition to the scientific chemical name and keep them closed in appropriate containers.
2. Store and dispose of hazardous materials properly.
3. Store flammable liquids appropriately and within allowable quantities.
4. Stored acid quantities should not exceed 15 gallons and should be appropriately stored according to compatibility. A chemical spill kit is to be available, if needed.
5. Keep appropriate personal protection equipment available (for example safety glasses and gloves).
6. Provide an emergency eyewash kit and/or access to clean, running water for flushing eyes exposed to chemicals.
7. Food, drinks, or pets are not allowed in the work area.
8. Compile and maintain a current chemical inventory list with a set of SDS's for those chemicals.
9. Provide Personal Protective Equipment (PPE) available and in good condition. Store and maintain the PPE appropriately.
10. Dangerous goods storage cabinets should be used and maintained in accordance with the relevant standards. Keep spill clean-up materials available and maintained.

HAZARDOUS WASTE

1. Containers of waste oil, solvents, glues and other materials are to be stored and labeled properly.
2. Waste containers are not to be held in the shop longer than 9 months.

COMPRESSED GAS CYLINDERS

1. Compressed gas cylinders are to be properly stored.
2. Incompatible oxygen and fuel gases are to be segregated.
3. Compressed gas cylinder contents are to be appropriately identified.
4. Cylinders must be secured appropriately by a bracket or chain.

5. Separate empty cylinders from full cylinders and clearly labeled as MT - or "Empty".
6. Appropriate resources (eg. cylinder hand cart) should be available for safely transporting gas cylinders.
7. The regulator used for each cylinder is to be appropriate for the gas being used.
8. Gas lines are to be labeled and free of leaks, kinks, signs of wear and tear.
9. Gas use is to be confined to areas with good local exhaust ventilation.
10. Cylinders, pipes and valves must be protected from mechanical damage.

SAFETY GUIDELINES FOR EQUIPMENT

DISK GRINDER/POLISHING MACHINES

Abrasive wheels and grinding machines come in many styles, sizes, and designs. Both bench-style and pedestal (stand) grinders are commonly found in the lapidary industry. These grinders often have either abrasive wheels, or multiple abrasive wheels of varying grit and one special-purpose wheel such as a leather buffing wheel.

These types of grinders normally come with the manufacturer's safety guard covering most of the wheel, including the spindle end, nut, and flange projection. These guards must be strong enough to withstand the effects of a bursting wheel - such as those made of carbide. In addition, a tool work rest and transparent shields are often provided.

SAFETY:

1. Think through the entire job before starting work.
2. Wear appropriate personal protective equipment (ie: eye, face, hearing etc.).
3. Do not mix incompatible dusts (such as steel and aluminum).
4. Never start machine unless all guards are in place, properly designed and adjusted.
5. Beware of moving machinery parts.
6. Keep work area clean. Foreign materials may cause poor footing.
7. Use a dust collection system, if provided.

- than one site to visit in the day, all persons must be accounted for prior to departing to the next location. Be ready to leave on field trips at the scheduled time.
6. Stay on existing roads when traveling, and park to the side of the road so others can get around your vehicle to pass if necessary. Do not trespass on private property. Do not drive in wilderness or other areas having specific vehicle restrictions.
7. Hard rock digging is limited to tools and muscle. Power equipment is generally prohibited. See your club's rules on this subject.
8. If you find tools in a hole, that hole is claimed by the owner of the tools, as he intends to return and continue digging.
9. The discharge of firearms is prohibited on field trips!

RULES WHILE TRAVELLING

1. Stay with the group on field trips to and from base camp.
2. When in convoy follow the vehicle immediately in front of you and keep the car behind you in sight at all times. If the car behind you slows down or stops, you should slow down or stop. They, or cars behind them, may need help. Do not pass the vehicle in front of you. If you no longer see the vehicle behind you, stop and wait; there could be a problem and they might not have a walkie-talkie or cellular phone that can reach the leaders. By doing this, the chance of having a large "break" in the convoy can be minimized.
3. Notify the field trip leader if you decide to leave the meeting area to investigate another area and when you expect to return - or if you head for home before the scheduled departure time of the group.

PHYSICAL SAFETY FOR FIELD TRIPS

1. Dehydration - The number one safety threat to rock-hounds on field trips is having their bodies run low on water! Water: this is the most important safety issue - especially in the summer! Our bodies are 60% water, and operate much more efficiently when kept at that level. Drink water continually during the field trip.
2. Dress for the heat. Wear loose-fitting clothes that cover as much skin as possible. Lightweight, light-colored clothing that reflects heat and sunlight and helps maintain normal body temperature. Protect your face and head by wearing a wide-brimmed hat.
3. Avoid too much sunshine. Sunburn slows the skin's ability to cool itself.

5. Never start machine unless all guards are in place, properly designed and adjusted.
6. Beware of moving machinery parts.
7. Keep work area clean. Foreign materials may cause poor footing.
8. Use a dust collection system, if appropriate.
9. Use proper blade to cut material.
10. Replace dull, cracked, or excessively fouled saw blades.
11. Securely clamp the lapidary workpiece prior to cutting.
12. Never clamp or wedge the machine guard in an open position.
13. Replace or repair spring-loaded trigger switches that “stick”.
14. De-energize and lockout all electrical systems before making adjustments or repairs.
15. Immediately report all machinery malfunctions to a shop supervisor.

FIELD TRIP SAFETY

The management of a lapidary club will make every effort to inform its members of common and special hazards involved with participating in a field trip. Field trip leaders will start a field trips with a discussion of the safety concerns associated with the areas you will be visiting. However, as a member of a lapidary club it is your responsibility to practice personal safety.

YOUR RESPONSIBILITY

1. If trips from camp require 4-wheel drive vehicles, and you don't have one, room will generally be found in someone's 4X4 for you. If you ride with someone else, ride back with them. Contribute to the cost of fuel
2. Once at the collecting site, a sample of what to find and where to find it should be made available by the field trip leader. It is your responsibility to listen to the field trip leader and view the collecting material.
3. Remember to keep your field trip leader informed as to all matters of importance.
4. Rely upon your field trip leader's directions and guidance; they are more familiar with the territory. The field trip leader will let participants know when to return to the meeting spot and where the group will go after that.
5. Three horn blasts is an assembly call indicating imminent departure and to return to the vehicles as soon as possible. If there are more

8. Avoid contact with unused portion of an abrasive disk or sanding belt above or below the work table.
9. Use the proper abrasive disk and/or belt for material being processed.
10. Replace disks if abrasive surface is cracked, badly scarred, fouled, has rips, tears, or worn areas.
11. De-energize and lockout electrical power supply to equipment before making adjustments or repairs.
12. Do not wear gloves, jewelry, or loose clothing while operating moving machinery.
13. Ensure that the machine operator is properly trained and has read the owners operation manual.
14. The rated speed of grinding machine must not exceed the rated speed of the abrasive wheel.
15. A stable and undamaged solid wheel will give a clear metallic tone or “ring.” If a wheel sounds cracked (dead), do not use it. This is known as the “ring test.” Give a “ring test” to an abrasive wheel before mounting it.
16. After mounting a new wheel, stand to one side and run machine for one minute before starting work.
17. Adjust work rests to within 1/8 inch, tongue guards to within 1/4 inch of wheel. Because the safety guard is designed to restrain the pieces of a shattered grinding wheel, the distance between the safety guard and the top periphery of the wheel must not be more than 1 4-inch. If this distance is greater because of the decreased size of the abrasive wheel, then a “tongue guard” must be installed to protect workers from flying fragments in case of wheel breakage. This “tongue guard” should be adjustable to maintain the maximum 1/4-inch distance between it and the wheel.
18. Plastic glass (Plexiglas) shields are optional. They are not a substitute for eye and face protection.
19. Do not polish or grind on the side of a wheel unless the wheel is specifically designed for that purpose.
20. Dress “out-of-true” wheels immediately.
21. Immediately report all machinery malfunctions to a shop supervisor.

DRILL PRESS MACHINE SAFETY

The drill press is a versatile machine that uses a multiple-cutting-edged drill bit secured in a rotating chuck to bore and drill holes into metal and stone for lapidary purposes. Either in floor or bench-top designs, drill presses are usually arranged vertically, requiring the operator to raise and lower an operating handle in order to control the drill bit. These machines also have variable speeds.

Serious lacerations and entanglement can occur if operators contact the rotating bit or chuck, or when operators try to hold the stock by hand when drilling. If not adequately secured, the stock can spin violently and contact the operator and others nearby. Also, injuries can occur from a projected chuck key if it is left in the chuck.

SAFETY:

1. Think through the entire job before starting work.
2. Wear appropriate personal protective equipment (ie: eye and possibly face protection).
3. Never start the machine unless all guards or rests are in place, properly designed and adjusted for the project.
4. Beware of the moving drill chuck and shaft.
5. Keep work area clean. Foreign materials may cause poor footing.
6. Do not use dull or damaged drill bits.
7. Use clamps, vices, etc., to secure the machine to a table.
8. Do not grab “quick-change chucks” while rotating, regardless of speed.
9. Do not wear gloves, jewelry, or loose clothing.
10. De-energize and lockout all electrical systems before making any adjustments or repairs.
11. Ensure that the operator is properly trained and has read the owners operation manual.
12. Immediately report all machinery malfunctions to a shop supervisor.

ROCK CUTTING SAW SAFETY

1. Think through the entire job before starting work.
2. Make certain that the rock is firmly clamped to the cutting platform.
3. Make certain that the face of the rock to be cut is perpendicular to the saw blade and that the blade will not be bent as it cuts.
4. Wear appropriate personal protective equipment.

5. Never start machine unless all hoods and guards are in place, properly designed and adjusted.
6. Beware of moving machinery parts.
7. Keep work area clean. Foreign materials may cause poor footing.
8. Immediately report all machinery malfunctions to a shop supervisor.
9. Ensure that the operator is properly trained and has read the owners operation manual.

LAPIDARY BAND SAW SAFETY

1. Think through the entire job before starting work.
2. Wear appropriate personal protective equipment (ie: eye, face, hearing etc.).
3. Do not wear gloves, jewelry, or loose clothing.
4. Ensure that the operator is properly trained and has read the owners operation manual.
5. Never start the machine unless all guards are in place, properly designed and adjusted.
6. Guard unused portions of saw blade, including below the work table.
7. Beware of all dangerous moving machinery parts.
8. Keep work area clean. Foreign materials may cause poor footing.
9. Use a saw blade designed for the material being cut.
10. Inspect blades for broken or dull saw teeth, excessive gumming, and fouling.
11. Adjust blade tension properly.
12. Verify with the manufacturer the distance from the exposed blade and the material being cut.
13. Openings in filler plates should never exceed 1/8 inch on either side of blade.
14. De-energize and lockout all electrical systems before making any adjustments or repairs. Immediately report all machinery malfunctions to management.

LAPIDARY CHOP SAW SAFETY

1. Think through the entire job before starting work.
2. Wear appropriate personal protective equipment (ie: eye, face, etc.).
3. Do not wear gloves, jewelry, or loose clothing.
4. Ensure that the operator is properly trained and has read the owners operation manual.