

## HEALTH & SAFETY

It is extremely important carvers are aware of safety practices. Non-compliance could be expensive.

Many of the rules and regulations are common sense, but even so, being proactive and applying due diligence pays off.

A good example is the use of hand power tools and chain saws. Read the operator's manual for any of these products and it clearly states, 'Do not expose power tools to wet or damp conditions'. That is difficult in our industry. But you can take precautions.

The same applies to guards on some power tools. We remove them to be able to work on ice as operators do in a number of other industries. But again, we can minimize problems.

*Some health and safety regulations are localized and may not apply in your area, but make sure you check with local communities.*

Health & Safety falls into four basic categories:-

- 1 Personal safety – short-term
- 2 Personal safety – long-term
- 3 The health and safety of those around you
- 4 Equipment and Shop safety

1 Personal safety, short-term –

(a) Protect yourself-

Plug in electric tools into ground fault circuit interrupter circuits (GFCI).

Use extension cords with GFCI plugs when working off-site –  
For example, with a portable generator.

Set up a clean, safe, working station and when carving make sure chain saws and sharp tools are directed away from co-workers or spectators.

Wear steel toed rubber boots when carving at room temperature.

Wear steel toed rubber or work boots when working off-site.

Wear gloves to protect hands from the cold, cuts etc,

If you use a modified chain saw or chain, do not use it on any material other than ice.

Always keep electric cords in good repair. Cracked (from cold temperature), cut, nicked and scuffed cords with bare wires showing are a source of electric shocks.

Never wear scarves or loose clothing when working with power tools. Keep long hair pulled and tied back from the face and remove all loose jewelry.

(b) Be aware of your surroundings and understand the limitations of the tools you are using.

Keep both hands on the power tool while operating.

Unplug a die grinder to change bits or a sander to change discs.

Unplug a chainsaw when sharpening or changing a chain.

Unplug all power tools when performing any maintenance.

Be aware of co-workers and spectators.

Make sure loose cords, scaffolding, excess ice and other potential hazards are removed from the area.

Never leave power tools, extension cords etc on the floor. Have a work table or a shelf close-by the work area. Double check the work station is free and clear of any obstructions before starting to carve or maintain any equipment.

Have a proper place to hang power tools, chain saws etc when work is finished.

Try and dedicate a specific space for equipment repair.

## 2 Personal safety – long-term

Protect yourself -

Wear a back brace to prevent damaging the spine

Elevate the carving block using a foot-operated or electro-hydraulic lift to reduce fatigue

Carve on a rubber mat or foam to reduce fatigue.

Wear ear protection to avoid long-term loss of hearing

Use a lift on deliveries for easier set-up, or have two people involved if necessary.

Remember, sharp tools require less effort to use.

When handling dry ice, always use eye protection and rubber gloves.

Some communities insist on a secured safety harness when carving ice at heights over 10 ft.

### 3 The Health of those around you

Always keep spectators at a safe distance while carving. Use caution tape to mark the working area.

Design safe sculptures that will last the length of the event.

Do not design sculptures where people are encouraged to put their mouth on the ice after others have been doing the same thing. When a sculpture is to come into contact with food, take extra precautions and make sure the carving is free of foreign material and wrap the carving in a food-grade plastic bag before packaging.

Have a sheet explaining how ice is handled and describe the equipment used to do it. Point out the potential dangers. Do not encourage spectators to touch ice unless supervised.

### 4 Equipment and shop safety

Use vegetable-based oils and lubricants for maintaining tools and machinery. Avoid petroleum-based lubricants.

Do not modify chainsaws by removing a section of the side guard to allow ice and snow to clear the machine. This can be a safety hazard.

Use a table for CNC equipment and do not operate CNC equipment on the floor. This is done in some industries, but the amount of ice and snow build-up could be a hazard.

In the shop, make certain all electrical panels are grey. Yellow is used to indicate safety and red for hazardous products. Clearly mark the panels as to their purpose.

Walk through your shop and check everything is in place and functioning properly. Note any failures and arrange to fix them as soon as possible.

When using a ladder in the plant make sure it is secured.

Store paint and other liquids in a secure area.

Mark all areas that require safety glasses to be worn – around band saws, CNC equipment, work stations and so on.

Every day, make sure the CNC router work station is clean and free of obstructions and clear away snow and ice regularly. This will prevent the machine jamming and the bearings from excessive wear. Post a map of your shop near the entrance which clearly shows exits, fire exits, location of fire extinguishers, location of safety glasses, ear plugs and other safety products and identify the position of the first aid kit, preferably near a sink and water source.