1 HAND AND PORTABLE POWER TOOLS

1.1 Employees should not use hand or portable power tools unless they have been trained on their proper use.

1.2 Hand tools should only be used for their intended purpose and shall not be used if any part of it, including the handles, is in disrepair.

1.3 Inspect hand and portable power tools before use to ensure they are safe to operate. Inspection shall include the points of operation, handles, casing, and cords.

1.4 To prevent hazards associated with the use of power tools, employees must observe the following general precautions:

1.4.1 Examine the power tool for damage before use and not use damaged tools. Damaged power tools shall tagged “DO NOT USE”.

1.4.2 Never carry a tool by the cord or hose.

1.4.3 Never yank the cord or the hose to disconnect it from the receptacle.

1.4.4 Keep cords and hoses away from heat, oil, and sharp edges.

1.4.5 Disconnect tools when not using them, before servicing and cleaning them, and when changing accessories such as blades, bits, and cutters.

1.4.6 Keep all people not involved with the work at a safe distance from the work area.

1.4.7 Secure the work piece with clamps or a vise, freeing both hands to operate the tool. Do not use hands to secure the work piece.

1.4.8 Avoid accidental starting by not holding fingers on the switch button while carrying a plugged-in tool.

1.4.9 Maintain tools with care; keep them sharp and clean for best performance.

1.4.10 Follow instructions in the user's manual for lubricating and changing accessories.

1.4.11 Keep good footing and maintain good balance when operating power tools.

1.4.12 Wear proper apparel for the task. Loose clothing, ties, or jewelry can become caught in moving parts.

1.4.13 When using electrically powered portable tools:

1.4.13.1 Ensure electric tools must have a three-wire cord with a ground and be plugged into a grounded receptacle or be double insulated. Adapter for two-hole receptacles may not be used unless it is attached to an adapter wire that is connected to a known ground. The third prong must never be removed from the plug.

1.4.13.2 Ensure that cords from electric tools do not present a tripping hazard.

1.4.13.3 Ensure they are plugged into ground-fault circuit interrupters (GFCIs) when working in outdoors or in damp environments. Test GFCIs prior to use.
1.4.14 Never remove safety guards from tools while they are being used. Disconnect the tool from its power source prior to removing any guards. Machine guards must be provided to protect the operator and others from the following:

1.4.14.1 Point of operation;
1.4.14.2 In-running nip points;
1.4.14.3 Rotating parts; and
1.4.14.4 Flying chips and sparks.

1.4.15 Ensure portable circular saws having a blade greater than 2 inches (5.08 centimeters) in diameter are equipped at all times with guards. An upper guard must cover the entire blade of the saw. A retractable lower guard must cover the teeth of the saw, except where it makes contact with the work material. The lower guard must automatically return to the covering position when the tool is withdrawn from the work material.

1.5 The following additional precautions must be followed when operating powered abrasive wheel tools:

1.5.1 Ensure the tool is equipped with guards that:
   1.5.1.1 Cover the spindle end, nut, and flange projections
   1.5.1.2 Maintain proper alignment with the wheel
   1.5.1.3 Do not exceed the strength of the fastenings.

1.5.2 Inspect the abrasive wheel for damage and perform a sound or ring test to ensure that it is free from cracks or defects before mounting it.

1.5.3 Ensure that the spindle speed of the machine will not exceed the maximum operating speed marked on the wheel.

1.5.4 Allow the abrasive wheel to reach operating speed prior to grinding or cutting in order to avoid disintegration or explosion during start-up.

1.5.5 Never clamp a hand-held grinder in a vise.

1.5.6 Refer to the Tetra Pak Inc. Hot Work Policy to verify if a Hot Work Permit is required for the use of powered abrasive wheel tools.

1.6 The following hand-held power tools must be equipped with a constant-pressure switch or control that shuts off the power when pressure is released:

1.6.1 Drills; tappers; fastener drivers; horizontal, vertical, and angle grinders with wheels more than 2 inches (5.08 centimeters) in diameter; disc Sanders with discs greater than 2 inches (5.08 centimeters); belt Sanders; reciprocating saws; sabre saws, scroll saws, and jigsaws with blade shanks greater than ¼-inch (0.63 centimeters) wide; and other similar tools.

1.6.2 These tools may also be equipped with a "lock-on" control, if it allows the worker to also shut off the control in a single motion using the same finger or fingers.

1.7 The following hand-held power tools must be equipped with a positive "on-off" control switch, a constant pressure switch, or a "lock-on" control:
1.7.1 Disc sanders with discs 2 inches (5.08 centimeters) or less in diameter; grinders with wheels 2 inches (5.08 centimeters) or less in diameter; platen sanders, routers, planers, laminate trimmers, nibblers, shears, and scroll saws; and jigsaws, sabre and scroll saws with blade shanks a nominal ¼-inch (6.35 millimeters) or less in diameter.

1.8 Personal Protective Equipment (PPE)

1.8.1 Wear safety glasses all times when using hand and power tools. Use additional additional eye and face protection, such as goggles or face shields, when operating tools that generate flying debris. Safety glasses, goggles, and face shields used to protect against flying debris shall meet the requirements of ANSI Z87.1.

1.8.2 Use hearing protection, such as ear plugs or ear muffs, when there is a potential for 8-hour time weighted average noise levels to exceed 85 dBA.

1.8.3 Wear protective footwear meeting the requirements of ASTM 2413 when there is potential for foot injuries from falling or rolling objects or objects piercing the sole.

1.8.4 Wear general work gloves when there is potential for cuts or abrasions from handling sharp or rough objects. Do not wear gloves when handling power tools with exposed rotating parts, such as disc grinders.

1.8.5 Wear Tetra Pak Inc. issued work uniforms when work activities can potentially contaminate personal clothing.

1.8.6 The effective date for this chapter of the FSE Safety Manual is July 2015.