HAND AND PORTABLE POWER TOOLS PROCEDURE

V:2023.1

Hand and Portable Power Tools Procedure

January 2023

1.0 Introduction

This manual outlines the IPS★ITCS guidelines for the operation, maintenance, safety, and training for hand and portable power tools used by its employees.

2.0 Scope and Application

These requirements apply to IPS★ITCS and all employees where hand or portable power tools are in use or will be used. This manual specifically references:

- Hand Tools
- Electric Tools
- Gasoline and mixed fuel Tools
- Hydraulic Tools
- Pneumatic Tools
- Powder-Actuated Fastening Tools

3.0 Definitions

- Hand Tools - Tools that are manually operated and powered by human force such as screw drivers, pliers, wrenches, and cutting shears, etc.
- Portable Power Tools - Power tools that are handheld, manually operated, and powered by electricity, air, gasoline, diesel, or explosion, such as circular saws, sanders, drills, reciprocating saws, air wrenches, air grinders, air fasteners, chainsaws, “Hilti guns” or “Ramset guns” etc.

4.0 Responsibilities

HSEQT Manager is responsible for:

- Reviewing hazards associated with hand and portable power tools during workplace inspections.
- Reviewing and updating the hand and portable power tools policy.
- Working with Supervisors and Safety Coordinators in establishing appropriate personal protective equipment (PPE).
- Working jointly with Safety Coordinators in the development of safety protocols for tools that present a unique hazard to employees and students.

- Assisting Supervisors and Safety Coordinators in establishing operational and safety guidelines for hand and portable power tools utilized within the Department/Division.

Supervisors shall be responsible for:

- Safe condition of tools and equipment used by employees including tools and equipment which may be furnished by the employees.
- Providing proper storage facilities in the tool room and on the job.
- Designating one or more persons to serve as Safety Coordinators(s) to implement policy requirements for the project.
- Documenting employee training.

- Documenting those employees permitted to use hand and portable power tools and the supervision required.
- Documenting and providing required PPE.
- Establishing operational and safety guidelines for hand and portable power tools utilized on the project.

Safety Coordinators is/are responsible for:

- Training employees who operate hand and portable power tools within their area of responsibility.
- Ensuring the proper use of PPE.
- Ensuring that guards and switches on portable power tools are in place and functioning.
- Ensuring unsafe hand or portable power tools are not issued for use.
- Establishing regular tool inspection procedures and providing repair when hand and portable power tools are damaged or malfunctioning.
- Establishing a procedure for control of tools such as a check-out system at tool cribs.
- Documenting inspection, maintenance and care of hand and portable power tools.
- Determining the need for special tools that will do the work more safely than ordinary tools by identifying the hazards associated with the job and the appropriate tools that shall be used.

Employees:

Only trained, qualified, and authorized employees will be permitted to use hand and portable power tools. Employees are responsible for:

- Anticipating all work hazards.
- Ensuring that all safeguards are utilized.
- Utilizing appropriate PPE.
- Conducting routine inspections to ensure that tools are properly maintained.
- Reporting to the Safety Coordinator any tool that needs to be replaced.
- Following all safety guidelines for the use of hand/ portable power tools and according to manufacturer's instructions.
- Participating in training sponsored by the company.

5.0 General Requirements

Safety Precautions: Hazards involved in the use of hand and portable power tools can be prevented by following some basic safety rules:

- Keep all tools in good condition with regular maintenance;
- Use the right tool for the job;
- Examine each tool for damage before use;
- Operate according to the manufacturer's instructions;
- Utilize the proper protective equipment; and
- Participating in safety training.

Personal Protective Equipment: Employees who use hand and portable power tools and who are exposed to the hazards of falling, flying, abrasive and splashing objects, or exposed to

harmful dusts, fumes, mists, vapors, or gases must be provided with the appropriate equipment needed, including Personal Protective Equipment (PPE), to protect them from the hazard.

The following PPE is required for the hand or portable power tools utilized by the company:

Safety Glasses or Safety Goggles with Face Shield (if grinding), Hard hat, Dust mask (if applicable), ear protection and gloves

Guards: Hazardous moving parts of a portable power tool need to be safeguarded. For example, belts, gears, shafts, pulleys, sprockets, spindles, drums, fly wheels, chains, or other reciprocating, rotating, or moving parts of equipment shall be guarded if such parts are exposed to contact by the user.

Guards, as necessary, shall be provided to protect the user and others from the following:

- Point of operation;
- Nip points;
- Rotating parts;
- Flying chips; and
- Sparks.

Safety guards shall never be removed when a tool is being used.

Safety Switches: The following portable power tools shall be equipped with a momentary contact "on-off" control switch: drills, tappers, fastener drivers, horizontal, vertical and angle grinders with wheels larger than two inches in diameter, disc and belt sanders, reciprocating saws, saber saws and other similar tools. These tools also may be equipped with a lock-on control provided that turnoff can be accomplished by a single motion of the same finger or fingers that turn it on.

The following portable powered tools may be equipped with only a positive "on-off" control switch: platen sanders, disc sanders with discs two inches or less in diameter; grinders with wheels two inches or less in diameter; routers, planers, laminate trimmers, nibblers, shears, scroll saws and jigsaws with blade shanks quarter inch wide or less.

Other portable powered tools such as circular saws having a blade diameter greater than two inches, chain saws and percussion tools without positive accessory holding means shall be equipped with a constant pressure switch that will shut off the power when the pressure is released.

6.0 Operating Requirements

The following contains requirements for the proper use of various types of hand and portable power tools. Most tools have similar hazards however, if there are questions as to the proper and safe use of a tool, consult the manufacturer's tool manual and/or a Safety Coordinator. Do not use a tool if you are unsure how to use it in a safe manner.

Hand Tools: Hand tools are non-powered. They include anything from axes to wrenches. The greatest hazards posed by hand tools result from misuse and improper maintenance. Some examples of misuse include the following:

- Using a screwdriver as a chisel may cause the tip of the screwdriver to break and fly, hitting the user or bystanders;
- Using a tool with a wooden handle (e.g., hammer) if the handle is loose, splintered, or cracked, the head of the tool may fly off and strike the user or bystander;
- Using a wrench if its jaws are sprung, because it might slip; and
- Using impact tools (e.g., chisels, wedges) if they have mushroomed heads since the heads might shatter on impact, sending sharp fragments flying.

Hand tool precautions include the following:

- IPS★ITCS is responsible for the safe condition of tools and equipment, but employees have the responsibility of using and maintaining tools.
- Safety Coordinators shall caution users that saw blades, knives or other tools be directed away from aisle areas and others working in close proximity. Knives and scissors shall be sharp. Dull tools can be more hazardous than sharp ones.
- When working with hand knives, boning knifes, draw knifes, and scissors employees shall use appropriate PPE such as wire mesh gloves and wrist guards.
- Floors shall be kept as clean and dry as possible to prevent accidental slips with or around dangerous hand tools; and

- Around flammable substances, sparks produced by iron and steel hand tools can be a dangerous ignition source. Where this hazard exists, spark-resistant tools made from brass, plastic, aluminum, or wood shall be used.

The primary hazards encountered when using hand tools include striking or contacting parts of the body with the hand tool or the work piece and projectiles flying off the tool. The most common injuries from the use of hand tools are:

- Laceration or cut.
- Contusion or bruise; and
- Eye injury

These injuries are generally caused by:

- Not wearing appropriate PPE;
- Using the wrong tool for the job;
- Improper use of the tool;
- Failure to inspect the tool;
- Improper storage and transportation of the tool; and
- Defective tools.

The following best work practices are required for the hand tools utilized by the Company:

- Keep all tools in good condition with regular maintenance.
- Use the right tool for the job.
- Examine each tool for damage before use and do not use damaged tools.
- Operate tools according to the manufacturers' instructions.
- Provide and use properly the right personal protective equipment.

Portable Power Tools: Portable power tools can be hazardous when improperly used. There are several types of portable power tools, based on the power source they use: electric, pneumatic, liquid fuel, hydraulic and powder-actuated.

The following general precautions shall be observed by portable power tool users:

- Read the owner's manual to understand the tool's proper applications, limitations, operation, and hazards;
- Select tool based on the task it is designed for. Only use attachments specifically recommended for the portable power tool and ensure they are properly installed;
- Inspect the tool for damage including the cord, guards, alignment, binding of components or any condition that would affect the tools safe operation;
- Avoid excessive force trying to make cutting tools cut faster;
- Use the tool at the rate for which it is designed to prevent excessive wear and maintain control;
- Maintain tool control by keeping a tight grip on the tool and using the tool's safe handle;
- Do no operate a portable power tool under the influence of medications and/or alcohol or if you are tired or distracted;
- Never carry a tool by the cord or hose;
- Never remove prongs from any cords;
- Never stand in or near water when using tools;
- Never "yank" the cord or the hose to disconnect it from the receptacle;
- Keep cords and hoses away from heat, oil and sharp edges;
- Replace all frayed and/or damaged extension cords. Do not try to tape cords;
- Use Ground Fault Circuit Interrupter (GFCI) for corded tools;
- Always check for hidden wires that may contact bladed tools;
- Disconnect tools when not in use, before servicing and when changing accessories such as blades, bits and cutters;
- All observers shall be kept at a safe distance away from the work area;
- Secure work with clamps or a vise, freeing both hands to operate the tool;
- Avoid accidental starting. The worker shall not hold a finger on the switch button while carrying a plugged-in tool;
- Tools shall be maintained with care. They shall be kept sharp and clean for the best performance. Follow instructions in the user's manual for maintenance, lubricating and changing accessories;
- Maintain good footing and balance;
- Avoid loose fitting clothes, ties or jewelry such as bracelets, watches or rings, which can become caught in moving parts. Long hair must be restrained;
- Use double insulated tools;
- Do not use electric portable power tools in the proximity of flammable vapors, dusts, or construction material;
- Keep work area well lighted when operating electric tools; and
- All portable electric tools that are damaged shall be removed from use and tagged "Do Not Use". This shall be done by Safety Coordinators.

Electric Tools: The main hazard of electrical tools is electrocution. Electricity can cause burns, shocks, and death. The factors that increase the risk of electrocution while using electrical portable power tools are:

- Faulty power cords;
- Misuse of power cords;
- Failure to use GFCI;
- Improper grounding;
- Improperly insulated tools, and;
- Working around wet surfaces.

To protect the user from electrocution, tools must either have a three-wire cord or be double insulated. Three-wire cords contain two current carrying conductors and a grounding conductor. One end of the grounding conductor connects to the tool's metal housing. The other end is grounded through a prong on the plug. Whenever an adaptor is used to accommodate a two-hole receptacle, the adaptor wire must be attached to a known ground. The third prong shall never be removed from the plug. Double insulation is more convenient. The user and the tools are protected by normal insulation on the wires inside and by a housing that cannot conduct electricity to the user in event of a malfunction.

The following general practices shall be followed when using electric tools:

Do Not:

- **Energize the tool until just before use;**
- **Get near the moving parts of an electrical tool unless the power is off;**
- **Lay electrical cords over sharp edges or through doorways or holes in walls;**
- **Use an electric tool in an area where flammable gases or vapors may be present unless the tool is rated for that application;**
- **Use any tool that is sparking or appears to have an electrical short;**
- **Use any tool with a damaged cord or exposed wiring;**
- **Use electric abrasive tools if the grinding wheel, buffer, or wire brush wobbles or vibrates excessively;**
- **Use excessive force on saws or drills to cut through hard materials;**
- **Use any tool unless the blade or bit is securely tightened; and**
- **Use any tool with the blade guard removed or rendered inoperable.**

Gasoline and Mixed Fuel Tools: Some tools are fuel powered and are dangerous because of the potential for burns, explosion, and fire. The most serious hazard with fuel powered tools comes from fuel vapors that can burn or explode and exhaust emissions that can create a hazardous atmospheric condition.

Observe the following when working with gasoline and other mixed fuel tools:

- Fuel shall be stored and transported in approved flammable liquid containers, according to proper procedures for flammable liquids;
- Before filling the tank for a fuel powered tool, turn off the engine and allow it to cool to prevent accidental ignition of vapors;
- Effectively ventilate an enclosed area or don the appropriate PPE to avoid inhalation of carbon monoxide; and
- Ensure access to fire extinguishers.

When using these tools, inspect them for:

- A constant pressure throttle control that will shut off the power when the pressure is released;
- A handle or trigger guard or lock to prevent accidental activation of the tool;
- A tip guard on chainsaws;
- A working blade break;
- Fuel leaks;
- Muffler condition; and
- Spark plug and wire connection condition.

Gasoline powered tools may not be used:

- In confined spaces; and
- In tunnels.

Gasoline powered tools may be used inside buildings only after:

- Ensuring proper ventilation; and

Hydraulic Tools: The fluid used in hydraulic power tools shall be an approved fire-resistant fluid and shall retain its operating characteristics at the most extreme temperatures to which it will be exposed. The manufacturer's recommended safe operating pressure for hoses, valves, pipes, filters and other fittings shall not be exceeded. Hydraulic tools such as jacks operate under pressure and can cause injury if a hose burst or develops a pinhole leak. Manufacturer recommended hoses designed to withstand the pressure being applied shall be used. Armored hoses shall be used where physical damage to the hose may occur. Hoses shall be located such that they do not create a trip hazard.

Pneumatic Tools: Pneumatic tools are powered by compressed air. They include chippers, drills, hammers, and sanders. There are several dangers encountered in the use of pneumatic tools which are described below:

- Being struck by one of the tool's attachments or a fastener. Eye protection is required and face protection is recommended;
- Depending upon the noise decibel levels and duration hearing protection may be required;
- Disconnection of the tool from the air hose. The user must check to see that the tools are fastened securely to the hose by a means that prevents them from becoming disconnected. A short wire or positive locking device attaching the air hose to the tool will serve as an added safeguard;
- A safety clip or retainer must be installed to prevent attachments, such as chisels on a chipping hammer, from being unintentionally shot from the barrel;
- Screens must be set up to protect others from being struck by flying fragments around chippers, rivet guns, staplers, and air drills;
- Compressed air guns shall never be pointed toward anyone. The user shall never "dead-end" it against him or herself or anyone else;
- Airless spray guns which atomize paints and fluids at high pressure must be equipped with automatic or visual manual safety devices which will prevent pulling the trigger until the safety device is manually released;

- If an air hose is more than one-half inch in diameter, a safety excess flow valve must be installed at the source of the air supply to shut off air automatically in case the hose breaks;
- Heavy jackhammers can cause fatigue and strains to the user; heavy rubber grips reduce these effects by providing a secure handhold;
- Jackhammer users must wear safety glasses, hearing protection, and safety shoes; and
- The air-line hose used must be designed to withstand the pressure being applied.

The following precautions shall be followed when using pneumatic tools.

Do Not:

- **Kink the hose or subject it to other physical damage;**
- **Lay the air hose across aisles or walkways;**
- **Squeeze the trigger on air hammers, impact wrenches, or other tools until the tool is in contact with the work;**
- **Use an air-line if it has a leak; and**
- **Use the air line for cleaning unless nozzle pressure is kept below 30 psig and effective chip protection is in place.**

Powder-Actuated Tools: Powder-Actuated Tools must be operated only by specially trained and licensed operators. Both types of powder-actuated tools, e.g. low-velocity and high-velocity, use explosives to drive studs, pins, or fasteners into a work surface.

Operators shall take the following precautions:

- These tools shall not be used in an explosive or flammable atmosphere;
- The tool shall not be loaded until ready for use;
- A loaded tool shall not be left unattended;
- Hands shall be kept clear of the barrel end;
- To prevent the tool from firing accidentally, two separate motions are required for ignition: (1) bring the tool into position; and (2) pull the trigger;
- The tools must not be able to operate until they are pressed against the work surface with a force of at least five pounds greater than the total weight of the tool;
- Suitable eye, ear, and face protection are required when using powder-actuated tools;
- The muzzle end of the tool must have a protective shield or guard centered perpendicularly on the barrel to confine any flying fragments or particles which might otherwise create a hazard when the tool is fired. The tool must be designed so that it will not fire unless it has this kind of safety device;
- Powder-actuated tools must be designed for varying powder charges so that the operator can select a powder level necessary to do the work without excessive force;
- If the tool develops a defect during use, it shall be tagged and taken out of service immediately until it is properly repaired;
- Only operators who have received manufacturers training and have been licensed shall operate powder-actuated tools;
- Only tools meeting the design requirements in the American National Standard (ANSI) A10.3-1970 shall be purchased;
- Operators must inspect each tool before use to assure that it is clean, that all moving parts operate freely, and that the barrel is free from obstructions;
- Operators must assure that only manufacturer-recommended fasteners are used in tools;

- Powder-actuated tools shall not be pointed at other people;
- In case of a misfire, operators must hold the tool in the operating position for at least 30-seconds before trying to operate the tool a second time. They must wait another 30-seconds, holding the tool in the operating position, then proceed to remove the explosive load in strict accordance with the manufacturer's instructions;
- Fasteners must not be driven into very hard or brittle materials including but not limited to cast iron, glazed tile, surface-hardened steel, glass block, live rock, face brick, or hollow tile;
- Driving into materials that are easily penetrated must be avoided, unless such material is backed by a substance that will prevent the pin or fastener from passing completely through and create a flying-missile hazard on the other side;
- Fasteners must not be driven directly into materials such as brick or concrete closer than 3 inches from the unsupported edge or corner, or into steel surfaces closer than 1/2 inch from the unsupported edge or corner, unless a special guard, fixture, or jig is used;
- When fastening other materials, such as a 2x4 inch wood section to a concrete surface, it is permissible to drive a fastener of nor greater than 7/32 inch shank diameter not closer than 2 inches from the unsupported edge or corner of the work surface;
- Fasteners must not be driven through an existing hole unless a positive guide is used to secure accurate alignment;
- No fastener must be driven into a spalled area caused by an unsatisfactory fastening;
- All tools must be used with the correct shield, guard, or attachment recommended by the manufacturer; and
- The tool must be inspected and repaired in accordance with the manufacturer's specifications.

The following best work practices are required for the portable power tools utilized by the Department/Division:

- Buy quality tools. Many tools, including cutters and hammers, should be made of steel and should be heat-treated.
- Regularly inspect tools to make sure they are in good shape and fit for use.
- Be sure to maintain your tools by performing regular maintenance, like grinding or sharpening. Always follow the manufacturer's instructions.
- Dress for the job by avoiding loose clothing or articles that can get caught in a tool's moving parts, like jewelry.
- Wear appropriate personal protective equipment, like leather gloves.
- Use the right tool for the job. In other words, don't try to use a wrench as a hammer.
- Make sure that your feet are planted on a stable surface.
- Be aware of the people around you and make sure they stay clear of the tools you are using.
- Never carry tools up a ladder by hand. Instead, use a bucket or bag to hoist tools from the ground to the worker.
- When working at heights, never leave tools lying out in the areas where they could present a hazard to workers below.
- When appropriate, secure work with a clamp or vise to keep it from slipping.
- Never carry pointed tools in your pocket. Carry them in a toolbox or cart instead.
- Inspect your tools on a regular basis, checking for damage. Report damaged tools to your supervisor.
- Make sure to keep extra tools handy in case the tool you had planned to use is damaged.
- Make sure tools are stored in a safe place.

7.0 Transporting

When transporting hand and portable power tools to and from the job site, observe the following safety guidelines:

- Do not carry portable power tools by their electric cord, airline, or hydraulic hose;
- Transport the tool in its carrying case if provided;
- Do not carry sharp or pointed tools with the edge or point upward and toward the body;
- Place all tools in a tool box if one is available;
- Never carry tools in a manner that obstructs vision;
- Never give sharp or pointed tools to another person with the sharp end toward the receiver;
- Never hand another person a portable power tool that is in motion or operation; and
- Never throw any tools at or toward another person.

8.0 Maintenance Requirements

The following protocol will be followed during the routine maintenance of hand and portable power tools by authorized repair personnel:

- Conduct repairs to fuel and ignition systems on portable power tools which could create fire hazards in designated locations;
- Fire suppression or extinguishing media must be present;
- Disconnect or remove any power supply prior to repairing portable powered tools;
- Use only replacement parts equivalent to those in the original design;
- Do not alter the tool or parts; and
- Do not add any parts not supplied by the manufacturer or delete any parts supplied by the manufacturer.

9.0 Care and Use

Take the time to familiarize yourself with the tool by reading its provided manufacturer instructions before use. Unusual working conditions may require additional instructions from a Safety Coordinator. Conduct a pre-use inspection of the tool. Modifications to a tool without the manufacturer's prior written approval are prohibited.

10.0 Nameplates and Marking

A portable power tool's rating and capacity may be found on a tag affixed to the tool. If no tag is found, report it to the Safety Coordinator. These tags contain important information such as UL testing, load, and operating specifications.

11.0 Storage

When tools are not in use or will not be used within a short period of time they shall be properly stored. Follow the guidelines below when storing tools.

- Store sharp tools in a specially designated cabinet or cupboard, with a blade guard in place;
- Drain gasoline or other flammable fuels from tools if they will be in storage for extended periods of time; and
- Prior to storage, de-energize tools such as removing air pressure, removing loads and de-pressurizing hydraulics.

12.0 Handling and Storage of Power Sources

Liquid fuels such as gasoline must be stored and handled in accordance with NFPA Flammable and combustible Liquids Code (NFPA No. 30-1969). Turn off engine or motor before filling fuel tanks.

For Powder-Actuated and Pneumatic tools, make sure there are no loaded fasteners in place while changing the load, disconnecting/connecting an airline, or storing.

Hydraulic fluid must not be added to jacks or other support tools while they are in use and under stress.

Keep batteries and battery chargers away from heat sources and potentially wet areas. Never throw a battery into a fire. Follow equipment manufacturer's safety tips when handling batteries.

13.0 Inspections

User Inspections: The user will visually inspect all hand and portable power tools before use to ensure that the tools are in safe and usable condition. All damaged and/or defective tools will be immediately reported to the Safety Coordinator Only authorized repair personnel will perform maintenance and repairs on hand and portable power tools.

New and Rented Equipment Inspections: Prior to use, all new or newly arrived rental tools will be inspected to ensure compliance with the provisions of this Program. For new tools, an initial inspection will verify that requirements of the purchase order (or rental agreement) have been met and the equipment is suitable for its intended use. For any newly purchased or rental tool, make sure the proper PPE is available for use.

Inspection Cycle: Authorized repair personnel will perform the following maintenance checks:

- Verify on an annual basis that the tool has been inspected and is operating properly and is consistent with manufacturer's specifications; and
- Remove equipment from use that is unsafe or not operating within manufacturer's specifications.

14.0 Training

Prior to using hand and portable power tools employees and students must be trained to use the correct tools for each job and must attend training specific for each tool to be used. No one will be permitted to use any portable power tools without receiving proper training. Students are not permitted to use any portable power tools without the presence of the applicable Safety Coordinator. Students working with portable power tools also must work in pairs, and shall not wear headphones/earphones while operating portable power tools.

IPS★ITCS is responsible for implementing a safety-training program that includes instruction on the following:

- Selecting the right tool for the job;
- Hazards and their controls;
- Common causes of injury;
- Safety precautions;
- Personal Protective Equipment;
- Inspection/Maintenance; and
- Safe operation.

All users of portable power tools must complete applicable training and follow the safety requirements of this policy

Revision History

Rev	Rev Date	Rev By	Approved By	Description
1.0	1.3.2022	Shayne Torrans	Shayne Torrans	Initial Procedure Document
1.1	11.23.2022	Shayne Torrans	Shayne Torrans	Format Revision

Approvals:

Procedure Owner

_____ _____
Print Name Date

_____
Signature

Competency Assessment

No.	Questionnaire	C/NYC
Q1		
A1		
Q2		
A2		
Q3		
A3		
Q4		
A4		
Q5		
A5		

Enclosed Attachments	
Risk Assessment	☑
Environmental Aspect and Impact	☑
Training and Competency	☑
Measure and Evaluation Tools	☑

Competency Checklist

To be filled out by Trainer and signed by Employee, Assessor and Supervisor before being returned to the HSEQT Manager for recording purposes.

Procedure	Competency	Date	Competent YES / NO	Employee Signature

(Please tick appropriate box)

This employee is competent in performing the job. ☐

This employee has not attained the competency level. ☐ *

* *If the employee has not attained all competency levels, the General Manager must assess the action to be taken, provide an extension of training or alternative action as listed below.*

Alternate action to be taken: _____

Signed By

Employee: _____ Date: _____

Trainer: _____ Date: _____

Assessor: _____ Date: _____

Regional Manager: _____ Date: _____

Environmental Aspects and Impacts

Identified Environmental Aspects and Impacts

The following table is a summary of the likely environmental aspects and impacts that may be identified during site inspections. The significance of each impact needs to be assessed using the Risk Assessment Model.

Activity	Aspect	Impact
Purchasing & Administrative Work	Consumption of goods	Conservation of natural resources
	Consumption of energy (eg. Electrical equipment and facilities)	Release of greenhouse gases and atmospheric pollution; Consumption of natural resources; Habitat loss
	Generation of waste (eg. Paper)	Consumption of space for waste disposal; Habitat loss
Climate Control	Consumption of energy	Release of greenhouse gases and atmospheric pollution; Consumption of natural resources; Habitat loss
	Generation of noise	Disturbance to community; Habitat loss
Cleaning of – offices / vehicles	Storage, use and release of chemicals	Contamination of air, water or soil; Risk to human health
Transport (Fleet vehicles / staff travel)	Consumption of energy	Release of greenhouse gases and atmospheric pollution; Consumption of natural resources; Loss of habitat at all stages of generation; Light pollution
	Consumption of goods (eg. Oil)	Consumption of natural resources; Generation of waste; Habitat loss; Biodiversity impacts
	Generation of waste (eg. Oil)	Consumption of space for waste disposal; Potential contamination of water or soil; Habitat loss
	Exhaust emission	Release of greenhouse gases and atmospheric pollution
	Use of dangerous goods (eg. Batteries)	Potential contamination of air, water or soil; Risk to human health
	Generation of noise	Disturbance to community; Habitat degradation
Operations		

Risk Assessment

Risk Assessment // insert name here					
Step No: Logical sequence	**Sequence of Basic Job Steps documented in the Procedure, Work Instruction and project plans. Break down Job into steps.** Each step should be logical and accomplish a major task.	**Potential Safety & Environmental Hazards/Impacts at the site of the Job** Identify the actual and potential health and safety hazards and the environmental impacts associated with each step of the job.	**Risk Rating** Refer to the risk matrix or HSEQT.PRO. Risk Mgt	**Recommended Corrective Action or Procedure** ***Determine the corrective actions necessary to reduce the risk to as low as reasonably practical (ALARP) refer to HSEQ.PRO.Risk Mgt. The risk must be rediced or controlled to ALARP before work commences.*** Document who is responsible for implementing the controls to manage each hazard identified.	**Risk Rating** refer to the risk matrix or HSEQT.PRO.Risk Mgt
1.					
2.					
3.					
4.					
5.					

Audit

Process: insert// **Procedure**: Insert //	Date:	Audited by:
	Location of Audit:	Area Mgr/Supervisor:

Item	Question	Evidence Sited	Comments	Conformance Score 0,3,5
1.				
2.				
3.				
4.				
5.				
6.				
7.				

AUDITOR'S SIGNATURE: SAFETY REP'S SIGNATURE:	CONFORMANCE SCORE: / 25 CONFORMANCE %:	0 – Non-Conformance 3 – Continuous Improvement Opportunity 5 – Total Conformance