1 PURPOSE:

The purpose of this policy is to define consistent guidelines on the use of tools and promote a philosophy of using the correct tool for the job. “Cheater pipes” and other forms of leverage can only be used when no other method of performing the task at hand can be identified.

2 SCOPE:

This policy applies to Gravity (GVTY) personnel operating tools.

3 RESPONSIBILITY:

3.1 Operation – Job Site Manager

3.1.1 The site supervisor will verify the purpose for which tools are specifically designed.

3.1.2 The site supervisor will take tools out of service that are worn out or deemed unsafe.

3.2 Health, Safety, Environment (HSE)

3.2.1 It is the responsibility of HSE to make sure employees are trained in the proper use of all tools. HSE will recognize hazards and safety precautions associated with the different types of tools as well as collaborate with employees and site supervisor to work together and establish safe working procedures. If a hazardous situation is encountered, it should be brought immediately to attention of the site supervisor for abatement.

3.3 Employee

3.3.1 It is the responsibility of employees who operate tools to know and follow the manufacturer recommendations. The employee is expected to use proper

judgement and expend the necessary effort for the job task. Other factors that must be considered include proper body positioning when exerting force, and the proper direction of the force being exerted.

- Complete a JSA to determine what tools are practical and less hazardous.
- The wrench shall fit securely on the valve handle or part to be loosened.
- Confirm that the tool or handle is snug and cannot slip.
- Never allow more than one person to operate on the tool.
- Be able to recognize the hazards associated with different types of tools and safety precautions necessary.

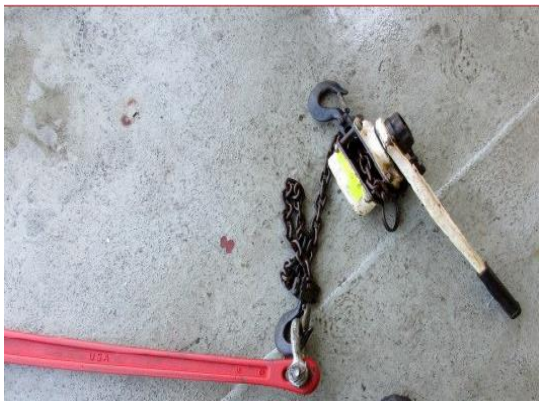
4 HAZARDS:

4.1 General Requirements

4.1.1 Hand tools are tools that are powered manually and include anything from axes to wrenches. The most significant hazards posed by hand tools result from misuse and improper maintenance.

- Keep all tools in good condition with regular maintenance.
- Use the right tool for the job. Cheater pipes cheat safety.
- All the proper PPE must be worn during operation.
- The tool operator will document line of fire on the JSA.
- Examine each tool for damage before using, and do not use damaged tools.
- Operate tools according to the manufacturer's instructions.
- No modifications are to be made that will weaken the structural integrity of the tool.
- Will the tool be used for its original intended purpose?
- Chisels, punches, and similar tools must be used only with a tool holder.
- Impact tools must be kept free of mushroomed heads.
- Always keep proper footing and balance. Do not overreach.
- Iron or steel hand tools may produce sparks that can be an ignition source around flammable substance. Where this hazard exists, spark-resistant tools made of non-ferrous material shall be used.
- Do not use come-a-longs, chain hoists, hydraulic(forklifts) or powered devices to load hand tools.
- Hammering frozen connection with wrenches is never permitted.
- *Adding heat to the connection will require a Hot Work Permit.*

Figure 1 – Pipe wrench used with Come-a-long and Shackle



4.2 Adjustable Wrenches

4.2.1 Crescent wrenches shall be properly adjusted. A tool extender must never be used with the wrench.

4.2.2 Channel locks shall be properly adjusted. Use only when exertion of minimal force is required.

4.2.3 Pipe wrenches shall be properly adjusted to assure no possibility of slippage. A pipe wrench shall never be used for breaking bolts.

4.2.4 Pipe wrench jaws shall be free of debris and not be worn before using. Clean teeth with a wire brush.

4.2.5 To prevent rusting, keep nonpainted parts well lubricated with oil and store in a dry place.

4.2.6 A bent handle indicates the wrench has been overloaded and is compromised. A bent handle should never be straightened.

4.2.7 When using a pipe wrench of any size, a gap must be maintained between the shank of the hook jaw and the pipe itself. This permits the pressure of the two gripping points. (Heel Jaw & Hook Teeth). If greater leverage is needed, use a larger wrench.

Figure 2 – Proper loading of Pipe Wrench

Chart 1 – Set Up

Pipe Wrench Size	Suggested Pipe Size Range	Maximum Pipe Size
6"	⅛" - ½"	¾"
8"	¼" - ¾"	1"
10"	¼" - 1"	1½"
12"	½" - 1¼"	2"
14"	½" - 1 ½"	2"
18"	1" - 2"	2 ½"
24"	1½" - 2 ½"	3"
36"	2" - 3 ½"	5"
48"	3" - 5"	6"
60"	3" - 6"	8"

Chart 1 - Suggested Pipe Size Range

Figure 3 – Pipe Wrenches designed for Extreme Leverage

5. CHEATER PIPE MITIGATION

5.1.1 A job review will be conducted so that no other tool for performing this job is available which is practical and less hazardous.
5.1.2 The tool extender will be an engineered or certified tool that is intrinsically safe.
5.1.3 The force exerted will not break the engineered or certified tool.
5.1.4 The engineered or certified tool is not longer than twice the wrench length and must closely fit the entire size of the wrench handle (form-fitting).
5.1.5 Personnel will keep a 5ft radius when the tool operator is on task.
5.1.6 Engineered and certified tools will never be jumped or jerked on.
5.1.7 Hoisting and articulating forklifts are never to be used in conjunction with engineered tool extensions.
5.1.8 Aluminum wrenches will never be allowed in conjunction with tool extenders.
5.1.9 Tool extender shall never be "homemade."

Employee signature below represent signature on file, and indicate signatories have read, fully understand, and endorse this document and its contents.

Employee Signature *Date*

Employee Printed Name

6. VERSION HISTORY

Documents in draft form are versioned A, B, C, etc.; after publication, documents are versioned 1, 2, 3, etc.

Version	Date	Writer	Comments
1	11/1/2022	S. Bedell	Initial publication of approved document.

Table 1: Version History