



FORMAL HAZARD ASSESSMENT

TITLE: Operating a Forklift					FHA #: 007					
Positions Considered:			Assessment Team:			Date Created: February 5, 2023				
Forklift operator Warehouse worker Supervisor			Mary Anja Estrella Ferrara Drew Philips			Revision #:				
						Last Revision Date:				
Tasks	Health	Safety	Hazards Associated with Task <i>Identify hazards (as applicable) presented by; operations, equipment, vehicles, materials, products, working conditions and environment.</i>	Raw Risk Rating			Controls <i>Consider the Hierarchy of Controls.</i>	Residual Risk Rating		
				Severity	Probability	Overall Risk Rating		Severity	Probability	Overall Risk Rating
Location and Set-Up of Equipment		X	Physical Hazards Causing Injury to Personnel on the Ground Near Machinery	2	2	4	Eng: Adm: Regular Workplace and Shop Inspections. Housekeeping and ensuring that trip and slip hazards are addressed when encountered on the floor (i.e., laying objects or clutter). New Worker Orientation. PPE: Safety Hard Hats, Protective Footwear, Hand Protection/ Gloves (as required).	2	1	2
		X	Struck-by hazards by other operators working in the facility or warehouse	3	2	6	Eng: Physical barriers to keep vehicles and visitors out of the work area. Heavy-gauge safety chain in front of loading dock opening. Adm: Eye contact with the operator. Use standard hand signals when noise levels inhibit auditory communication. Powered Mobile Equipment SOP. Using spotters and rear-view mirrors to increase visibility whenever possible. PPE: Safety Hard Hats, Fire-Resistant Clothing with High Visibility Stripes, Safety Eyewear, Hearing Protection, Protective Footwear	2	2	4
	X		Bodily Contact with Overhead Cage When Mounting the Forklift	2	2	4	Eng: Firm, level footing on the forklift. Handhold. Adm: Pre-trip inspections and safe work procedures. New Worker Orientation. Be careful with footing and use 3-point contact when mounting or dismounting from forklift.	1	1	2



							PPE: Safety Hard Hats, Fire-Resistant Clothing with High Visibility Stripes.			
	X	Awkward Working Positions and Body Postures	2	2	4		Eng: Adjustable Seating/ Lumbar Support. Height-adjustable headrests and arm rests. Adm: Ergonomics Training Program, SWP Ergonomics, Avoid Prolonged Forklift Use, Work/Rest Cycle PPE: Hand Protection/ Gloves (as required).	2	1	2
	X	Body Contact with Pinch Points	2	2	4		Eng: Adm: Avoid moving parts of machinery. Keep fingers, hands, and arms away from backhoe bucket and other pinch points. Powered Mobile Equipment SOP. Lock Out/Tagout Procedures. New Worker Orientation. PPE: Safety Hard Hats, Fire-Resistant Clothing with High Visibility Stripes, Safety Eyewear, Protective Footwear, Hand Protection/ Gloves (as required).	2	1	2
Loading and Unloading	X	Static Electricity – Spark or Ignition	3	2	6		Eng: Ground/Bond Containers or Trucks Adm: Shop Safety Practice, Inspections, Training, New Worker Orientation, Powered Mobile Equipment SOP. PPE: Safety Hard Hats, Fire-Resistant Clothing with High Visibility Stripes, Safety Eyewear, Hearing Protection, Protective Footwear, Hand Protection/ Gloves (as required).	2	2	4
	X	Machinery – Unguarded Injury	3	2	6		Eng: Protective guard rails. Audible back-up signal from forklift when operating in reverse. Adm: Lifting and Handling Loads SOP, Powered Mobile Equipment SOP, New Worker Orientation. Avoid moving parts of machinery and keep fingers, hands, and arms away from backhoe bucket or pinch points. Working in a buddy-system or using a spotter. PPE: Safety Hard Hats, Fire-Resistant Clothing with High Visibility Stripes, Safety Eyewear, Hearing Protection, Protective Footwear, Hand Protection/ Gloves (as required).	2	2	4
	X	Compressed Gas - Explosion	3	3	9		Eng: Approved Containers, Storage Location. Adm: Flammable and Combustible Gas SOP, Emergency Response Plan, Inspections, New Worker Orientation, Training. Ensure that the forklift is parked in an authorized area. PPE: Safety Hard Hats, Fire-Resistant Clothing with High Visibility Stripes, Safety Eyewear, Hearing Protection, Protective Footwear, Hand Protection/ Gloves (as required).	3	2	6
	X	Excessive Noise Exposure	3	2	6		Eng:	2	2	4



							<p>Adm: Establish forklift working areas. Standard hand signals when noise levels inhibit auditory communication. Working in a buddy-system or using a spotter. Work/Rest Cycle. Reduce travel speeds. Rubber surface mats.</p> <p>PPE: Wear approved safety ear plugs or muffs when operating forklift or working close to noise source(s). Suitable Footwear, Safety Hard Hats, Fire-Resistant Clothing with High Visibility Stripes, Safety Eyewear, Hand Protection/ Gloves (as required).</p>			
Arrive at site of material loading	X	Unsafe Driving Increasing Risk of Collision or Tip Over	3	3	9	<p>Eng: Audible back-up signal from forklift when operating in reverse.</p> <p>Adm: Lifting and Handling Loads SWP, Powered Mobile Equipment SOP. Establish working zones. Personnel on the ground should keep away from the work area and backhoe unless they are required for the task. Reduce travel speed. Working in a buddy-system or using a spotter.</p> <p>PPE:</p>	3	2	6	
	X	Blocked Visibility, Leading to Collisions	3	3	9	<p>Eng: Audible back-up signal from forklift when operating in reverse.</p> <p>Adm: Lifting and Handling Loads SWP, Powered Mobile Equipment SOP. Establish working zones. Personnel on the ground should keep away from the work area and backhoe unless they are required for the task. Reduce travel speed. Working in a buddy-system or using a spotter.</p> <p>PPE:</p>	3	2	6	
	X	Improper loading may cause loss of control of truck due to instability.	3	3	9	<p>Eng: Protective guardrails. Audible back-up signal from forklift when operating in reverse.</p> <p>Adm: Lifting and Handling Loads SWP, Powered Mobile Equipment SOP. Reduce travel speed. Always stop completely before changing directions. Slowing down and sounding the horn at cross aisles and blind spots or other locations where vision can be obstructed. Working in a buddy-system or using a spotter. New Worker Orientation.</p> <ul style="list-style-type: none"> Personnel on the ground should keep away from the work area unless they are required for the task. Do not approach heavy equipment without first establishing eye contact with the forklift operator. <p>PPE:</p>	3	2	6	
	X	Lifting Heavy Loads	3	2	6	<p>Eng: Dolly, Lifting Equipment, Protective Guardrails, Audible back-up signal from forklift when operating in reverse.</p> <p>Adm: Adequate Amounts of Rest, Stretch and Take Frequent Breaks, SWP Ergonomics, Housekeeping, Pre-Use Inspections,</p>	2	2	4	



						<p>New Worker Orientation, ERP, Two-Worker Carry, Safe Manual Lifting/Carrying Techniques</p> <p>PPE: Protective Footwear, Hand Protection/ Gloves (as required).</p>			
	X	Worker Injury due to Slip/Trip/Fall	2	2	4	<p>Eng: Grip Mats, Handrails</p> <p>Adm: Pre-Use Equipment Inspections and Shop/Warehouse Inspections, Housekeeping, New Worker Orientation. Ensure that the forklift is parked in an authorized area. Be careful with footing and use 3-point contact when mounting or dismounting from forklift. Adequate lighting in shop/warehouse.</p> <p>PPE: Protective Footwear, Hand Protection/ Gloves (as required). Head Lamps If Entering Dim Area</p>	2	1	2
	X	Falling Objects Causing Injury to Workers	3	3	9	<p>Eng: Overhead guards on forklifts to protect operators,</p> <p>Adm: Using headlights when lighting is dim or when operating at night. Regularly check overhead guard for broken welds, missing bolts, or other damage. Loading and Transporting Equipment Safe Work Procedure. Establishing no-work zones to limit traffic in area.</p> <p>PPE: Safety Hard Hats, Fire-Resistant Clothing with High Visibility Stripes, Safety Eyewear, Hearing Protection, Protective Footwear, Hand Protection/ Gloves (as required).</p>	2	2	4
	X	Falling Objects Causing Property Damage	3	3	9	<p>Eng:</p> <p>Adm: Using headlights when lighting is dim or when operating at night. Regularly check overhead guard for broken welds, missing bolts, or other damage. Loading and Transporting Equipment Safe Work Procedure. Establishing no-work zones to limit traffic in area.</p> <p>PPE: Safety Hard Hats, Fire-Resistant Clothing with High Visibility Stripes, Safety Eyewear, Hearing Protection, Protective Footwear, Hand Protection/ Gloves (as required).</p>	2	2	4
Preventative Maintenance of Forklift	X	Changing Hoses Causing Splash/Spill - <i>Chemical burn / Absorption</i>	2	3	6	<p>Eng:</p> <p>Adm: Preventive Maintenance Program, Manufacturer's Specifications, Out of Service Tag/Sign, Spill Response, Training, New Worker Orientation. Ensure that the forklift is parked in an authorized area.</p> <p>PPE: Fire-Resistant Clothing with High Visibility Stripes, Safety Eyewear, Protective Footwear, Hand Protection/Gloves (as required).</p>	1	2	2
	X	Changing Oil Causing Splash/Spill - <i>Chemical burn / Absorption</i>	2	3	6	<p>Eng:</p> <p>Adm: Preventive Maintenance Program, Manufacturer's Specifications, Out of Service Tag/Sign, Spill Response, Training,</p>	2	1	2



						<p>New Worker Orientation. Ensure that the forklift is parked in an authorized area.</p> <p>PPE: Fire-Resistant Clothing with High Visibility Stripes, Safety Eyewear, Protective Footwear, Hand Protection/Gloves (as required).</p>			
	X	<p>Changing Propane Fuel Tank Causing Contact with Chemicals - <i>Chemical burn / Absorption</i></p>	3	2	6	<p>Eng:</p> <p>Adm: Safe Handling of Propane (LPG) Fuel SWP, Preventive Maintenance Program, Manufacturer's Specifications, Training, New Worker Orientation. Competency Program. Ensure that the forklift is parked in an authorized area.</p> <p>PPE: Fire-Resistant Clothing with High Visibility Stripes, Safety Eyewear, Protective Footwear, Hand Protection/Gloves (as required).</p>	3	1	3



Risk Matrix

		Severity		
		1 - Minor	2 - Moderate	3 - Major
Probability	3 - Very Likely	Medium 3	High 6	Extreme 9
	2 - Unlikely	Low 2	Medium 4	High 6
	1 - Rare	Low 1	Low 2	Medium 3

Probability pertains to the extent of how likely it is for the risk to occur.

The 3 risk rating levels for this component are:

1. **Rare** – unlikely to happen or has never happened.
2. **Unlikely** – has the possibility to happen or has happened at least once.
3. **Likely** – almost sure to happen or has happened multiple times.

Severity is to determine the level of effects that the hazard could cause.

The 3 risk rating levels for this component are:

1. **Minor** – can cause injuries/illnesses requiring first aid or negligible property damage.
2. **Moderate** – can cause moderate injuries/illnesses requiring medical aid or moderate property damage.
3. **Major** – can cause irreversible injuries/illnesses or fatality or may cause serious property damage.

Overall Risk Rating

Severity x Probability = Overall Risk Rating

Low - no further action needed; proper control measures are in place.

Medium – proceed with caution and monitor at regular intervals.

High – must be reviewed and reassessed prior to work proceeding.

Extreme – work must be stopped until adequate controls have reduced hazard to an acceptable level.

