

Job Hazard Analysis

JHA Name: Forklift, Sit-Down



Assessment Date: 01-02-14

Revision Date: 04-04-17

Building or Location: North Mankato & Faribault Campus

Department or Program: Maintenance, Technical Programs

Description of Individual Tasks or Assignments: Transporting, Loading/Unloading Materials

Tools, Equipment, or Machinery Used when Performing Task: Forklifts: Sit-Down Counter Balanced (e.g., Propane, Gas), Forklift Attachments (Barrel Grabbers, Dumpsters, Fork Extensions, etc...), and Fuel (Propane Cylinders, Gas)

| Hazard Type(s) Associated with Task or Assignment: | | Check for Exposure: | Specific Hazard Exposure: | Check if Exposure Recommends or Requires a Style of PPE? |
|--|---|---------------------|---|--|
| 1 | Impact <u>Example:</u> Person(s) can strike an object, or be struck by a moving or flying/falling object (e.g., fragments, chips, particles, sand, dirt/debris). | X | Pedestrians (in areas occupied by Forklifts) have potential exposure to be struck by Forklift, being caught between Forklift/load and fixed object, and/or being struck by an improperly secured or balanced load falling off the forklift. | |
| 2 | Penetration or Cut <u>Example:</u> Person(s) can strike an object, be struck by an object, or fall upon an object or tool that would cut or otherwise break the skin. | X | Same as "Impact Hazard Exposure." | |
| 3 | Crush or Pinch <u>Example:</u> An object(s) or equipment/machine may crush or pinch a body or body part | X | Same as "Impact Hazard Exposure," in addition, potential exposure to operator being pinned between forklift's cab and work surface during a forklift overturn accident. | |
| 4 | Chemical or Harmful Dust <u>Example:</u> Exposure to chemicals (i.e., hazardous substances and harmful physical agents), infectious agents from spills, splashing, physical contact, and/ or exposure to dusts, vapors, fumes, or gases that could cause illness, irritation, burns, asphyxiation, breathing/vision difficulty, sensitization, infection, or other toxic health effects (i.e., acute or chronic). Note: "May also have or create ignition potential." | X | Potential exposure to CO from combustion engine forklifts (e.g., respiratory illness), chemical splash, chemical inhalation (e.g., injuries to eyes/skin, respiratory illness) and flammable vapors (e.g., flammable atmosphere) during forklift refueling or recharging. | X |
| 5 | Heat <u>Example:</u> Exposure to radiant heat sources, sparks, and splashes or spills of hot material | | | |
| 6 | Light (optical) Radiation <u>Example:</u> Exposure to strong light sources, glare, or intense light exposure which is a byproduct or a process. Note: "This category may also include hazards presented from lack of light (e.g., working in dark spaces/areas)." | | | |
| 7 | Electrical Contact <u>Example:</u> Exposure, contact, or proximity to live or potentially live electrical objects. | | | |
| 8 | Ergonomic/ Human Factors <u>Example:</u> Working in cramped spaces, repetitive movements, awkward postures, vibration, heavy lifting, etc... Note: "This category may also include unique hazards presented from tasks that require demanding or challenging degrees of mental and/or physical effort to be exerted by an individual. See <i>Physical Effort Definition/Examples</i> category for further explanation of physical effort." | X | Potential exposure to sources of whole-body vibration (Forklifts) | |
| 9 | Environmental <u>Example:</u> Exposure to noisy environments, hot or cold work environments, poor weather conditions, working at a height, and any other conditions in the workplace that could cause danger, discomfort, and/or negative health effects. | X | Potential exposure to high heat/temperatures (summer months), to cold/freezing temperatures (winter months), poor weather conditions (strong wind, rain, snowing, sleet, etc...), driving on uneven surfaces (ramps, rough terrain, entering semi trailers, etc...) | X |

Job Hazard Analysis

JHA Name: Forklift, Sit-Down



Assessment Date: 01-02-14

Revision Date: 04-04-17

Building or Location: North Mankato & Faribault Campus

Department or Program: Maintenance, Technical Programs

Description of Individual Tasks or Assignments:

Transporting, Loading/Unloading Materials

Tools, Equipment, or Machinery Used when Performing Task:

Forklifts: Sit-Down Counter Balanced (e.g., Propane, Gas), Forklift Attachments (Barrel Grabbers, Dumpsters, Fork Extensions, etc...), and Fuel (Propane Cylinders, Gas)

Personal Protective Equipment Requirements:

| | |
|-------------------------|--|
| Eyes & Face: | Safety Glasses with Side Shields or Goggles (Required when changing propane tanks) |
| Head & Ears: | |
| Whole Body: | |
| Feet: | Safety Shoes (Required whenever operating Forklifts) |
| Hands: | Chemical/ Insulated Gloves (Required when changing propane tanks) |
| Respiratory: | |
| Other: | Personnel should select appropriate clothing consistent with weather conditions and seasonal operations (e.g., winter months vs. summer months). |

Other Control Measures or Requirements (Engineering & Administrative Controls):

#1) Impact Hazards, #2) Penetration or Cut Hazards, & #3) Crush or Pinch: Forklift operators are responsible for their forklifts, the load, and all personnel working around them. Operators should warn pedestrians of their presence by using the horn. Operators should never operator forklifts in areas where pedestrians can be caught between fixed objects and their vehicle. Forklifts are equipped with safety equipment (e.g., backup alarms, flashing/warning lights) to warn personnel working/walking in the area. Operators are responsible for ensuring all loads are appropriately stacked, balanced, and do not exceed the capacity of the vehicle. **#4) Chemical or Harmful Dust Hazards:** Personnel should receive Right-to-Know training (e.g., regarding chemical & physical hazards). SDS should be provided/available for all hazardous chemicals. Forklifts utilizing combustion engines must have tailpipes tested annually for CO emission levels, and after all major engine servicing/repair. Indoor work areas were combustion engine forklifts are operated should be tested quarterly for CO emission levels. Prior to refueling forklifts (e.g., changing propane tanks, adding gas/diesel, or changing batteries) operators must be trained by an authorized college trainer. **#8) Ergonomic Hazards:** Whole Body vibration can be reduced in forklifts by ensuring the seat and vehicle frames are designed to reduce the transfer of vibrations from the equipment to the operator. Vibrations can also be reduced/minimized by regular preventive maintenance of the equipment (keeps equipment running smoothly). Grounds and work surfaces are maintained to reduce wear, ruts, and other damage which reduces the number of impacts to forklifts and the operator's body. Forklifts seats, steering wheels, etc... should be adjusted to ensure a comfortable ergonomic setup for operator. "NOTE: Forklifts are only operated for very short periods of times in most college environments in comparison to other General Industry applications." **#9 Environmental Hazards:** Personnel should be trained in the basic understanding of heat stress and recognizing warning signs. Personnel should take more frequent short breaks on hot days in shaded or air-conditioned areas. Personnel should drink plenty of cool beverages (water), and avoid drinks with caffeine (coffee, tea, or pop). When possible schedule/perform work during the coolest part of the day. Personnel should be trained in the basic understanding of cold/thermal stress and recognizing warning signs. Personnel should take more frequent short breaks in warm dry shelters to allow the body to warm up. Personnel should drink warm/sweet beverages (sugar water, sports-type drinks), and avoid drinks with caffeine (coffee, tea, or hot chocolate). Some forklifts can reinstall doors to reduce operator exposure to poor weather. **Miscellaneous Considerations:** Prior to operating forklifts personnel must be trained, tested, and certified by an authorized college trainer. Forklift operators must receive retraining every 3 years at minimum, or when conditions/equipment change, or findings indicated previous training is ineffective. Operators of tools, equipment, and machinery should read and follow all Manufactures' recommendations/requirements (e.g., inspections, servicing/maintenance, safe usage, etc...). Any tools, equipment, or machinery found damaged, defective, or otherwise unsafe should immediately be removed from service and not used until repaired or replaced. Personnel should always consult their Supervisors on the selection and use of PPE for the tasks being performed.

Physical Effort Definition/Examples

1.) Physical Mobility- Movement from place to place on the job, considering distance and speed **2.) Physical Agility-** ability to maneuver body while in place or in static position **3.) Physical Strength (Light to Moderate)-** Ability to handle routine office materials and tools **4.) Physical Strength (Moderate to Heavy)-** Ability to handle 50lbs+ objects, considering frequency **5.) Dexterity-** skill and ability in using hands, fingers, and feet **6.) Physical Balance-** ability to maintain balance and physical control **7.) Coordination-** harmonious functioning of body parts (e.g., eye/hand, hand/foot, etc...) **8.) Endurance-** ability to sustain a prolonged stressful effort or activity with limited opportunity to rest

Note: "This JHA provides only the minimum PPE/safety requirements necessary to safely complete the task or assignment, and the JHA only covers the hazards or exposures that are most likely to be encountered. Nothing within this JHA bars or restricts personnel from requesting higher degrees of PPE or control to mitigate workplace hazards. In addition, South Central College personnel (e.g., employees and students) are required to complete any applicable safety or on-the-job trainings required prior to performing their positions or participating in their programs of study. Finally, South Central College personnel should consult their supervisors/instructors, the college's written safety programs/policies, and/or the Security & Safety Director whenever they have questions or concerns."

Certification: This document certifies a hazard assessment was conducted meeting the provisions specified under 29 CFR 1910.132 (d) and South Central College's related safety programs and policies.

Name: Al Kluever

Date: 04-04-17