WHSE TOOLBOX TALKS

Scheme Expansion - Noise & Manual Handling

BACKGROUND

Noise and manual handling testing were conducted by the WHSE Team to determine if there will be any material change to the existing noise and manual handling hazards as a result of Scheme Expansion, being introduction of wine & spirit bottles into the scheme, on 1 November 2023.

NOISE AND MANUAL HANDLING FINDINGS

- It was found that there is no material increase of noise levels for wine & spirit bottles in comparison to noise from current eligible mixed glass.
- As Scheme Expansion will result in increased volume of glass being handled on 1 November, frequency of this glass noise on average will increase within the workplace.
- Assessment of wine & spirit bottle (unbroken) weights combined, were found to be less per bag / bin than current eligible unbroken mixed glass - this is due to mixed glass, being smaller in size than wine & spirit bottles, allowing greater numbers to be contained within bags and bins.
- There may be an increased risk of cuts and lacerations to workers arms when emptying loads, due to increased thickness and height of wine and spirit bottles.
- The larger size and weights of individual wine and spirit bottles introduce a potential increased risk of sprain and strain to hands and wrists

NOISE EXPOSURE

Noise testing of glass was measured in two ways. One for noise over an eight-hour shift and one for "peak" or one-off noise. [1].

Noise levels within CRP's were found to reside between:

- 85 to 95dB over an 8-hour day, depending on the site setup, number of hours and tasks performed by workers. Safe Work Australia states that workers must not be exposed to noise above 85 decibels (as an average) over eight hours at work, and controls to reduce exposure should be implemented.
- Peak one-off noise was found to reside between 110 to 140dB for the following activities:
    - Dumping of predominately glass loads onto counting tables or conveyor machines
    - Sweeping of glass in cages
    - Dumping of glass cages by forklift into skip bins

Noise controls

The WHS Regulations [2] require duty holders to work through a hierarchy of control to choose the control measure that most effectively eliminates or minimises the risk in the circumstances.

The hierarchy of control ranks the ways of controlling the risk of hearing loss from noise from the highest level of protection and reliability to the lowest so that the most effective controls are considered first [2].

Effective risk control/s may involve a single control measure or a combination of two or more different controls.

TOOLBOX TIPS

- ✓ Print copies of this sheet for yourself and each of the workers
- ✓ Lead a discussion with your workers about the materials on this sheet at a location that is appropriate to the topic
- ✓ Be sure to give real life examples whenever possible.
- ✓ Ask your workers for their experiences
- ✓ Have each worker sign your sheet to confirm their attendance
- ✓ Conclude with a brief review of the main points or a summary based on the discussion
- ✓ File your sheet in your worker training records to document the training experience
- ✓ Fill in your operation name, location and the date on your sheet
- ✓ Be open to questions

This toolbox is background information ONLY. Be sure to customise your talk to your operation and facilities. The following tips are some helpful suggestions with getting the best out of your toolbox.

CONTAINERS FOR CHANGE

Noise Hierarchy of Control

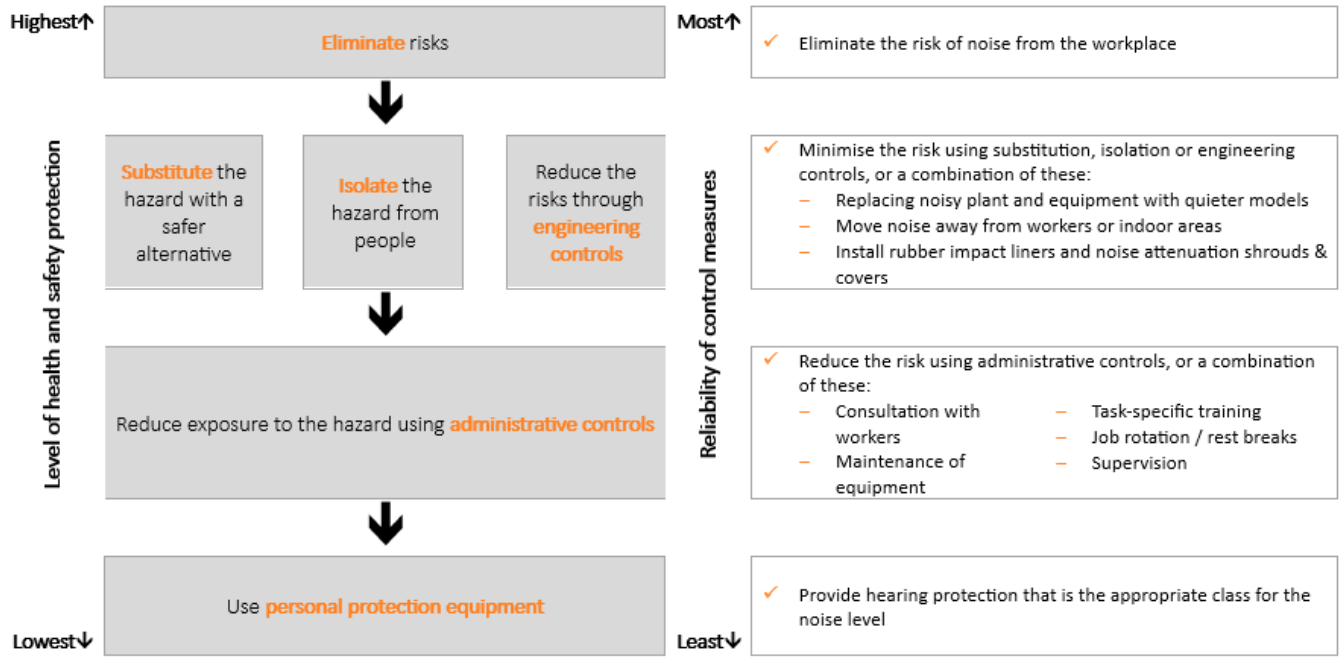

FIGURE 1. HOC [3] (with known scheme noise controls exampled)

Where hearing protection is worn by workers, Operators should provide the correct class, in accordance with level of noise exposure standard of hearing protection below.

CLASS	dB(A)
1	Less than 90db(A)
2	90 to less than 95dB(A)
3	95 to less than 100dB(A)
4	100 to less than 105dB(A)
5	105 to less than 110dB(A)

FIGURE 2. Hearing Protection Standard [4]

Too high a class of hearing protection makes it difficult for workers to hear ambient activities occurring around them, such as general conversations, movement of forklifts, etc.

Some workers may be prone to a reduced tolerance of sound; therefore, some discomfort may be experienced when exposed to noise, even while wearing the correct level of protection. If this is the case, a class level higher could be provided and / or the workers hearing tested by a qualified provider.

A higher level of hearing protection may be required for workers performing peak noise activities.

MANUAL HANDLING

Even though wine & spirit bottle (unbroken) weights combined, were found to be less than current eligible unbroken mixed glass, given that eligible mixed glass is smaller in size, more numbers of these can be contained within bags and bins.

RESOURCES/REFERENCES

[1] National Standard for Occupational Noise 1007(2000); [2] WHS Regulation Qld 2011, s.56; [3] Managing noise and preventing hearing loss at work COP – WHSQ; [4] Australian Standard AS/NZS 1270:2002: Acoustics – Hearing protectors; [5] Hazardous Manual Tasks COP –WHSQ

- Exposure calculators and ready-reckoners - https://www.hse.gov.uk/msd/uld/art/index.htm
- Assessment of Repetitive Tasks (ART) tool - https://www.hse.gov.uk/noise/calculator.htm

This means that loads to site by customers and commercial clients will vary depending on the mix of glass provided. The individual capability of workers to handle these weights should be factored into day-to-day manual handling tasks [5]. Certain aspects of an individual, such as height, stature and previous injuries should be considered, particularly for larger loads.

Due to the increased thickness and height of wine and spirit bottles, there may be a higher risk of serious cuts and lacerations to workers arms.

Weights conducted on mixed glass and wine & spirit bottles found that on average the following applied, according to typical receptacles that arrive onsite from customer and commercial loads:

Wine Box	Beer Carton	Milk Crate	C4C Bag	120 ltr bin	200 ltrBlue Drum	240 ltr bin	660 ltr bin
6 kg	7.6 kg	8.5 kg	23 kg	37 kg	62 kg	75 kg	205 kg

Manual handling control

Some examples of existing controls within the network for the manual handling of glass wine & spirit bottles, using the hierarchy of controls are as follows:

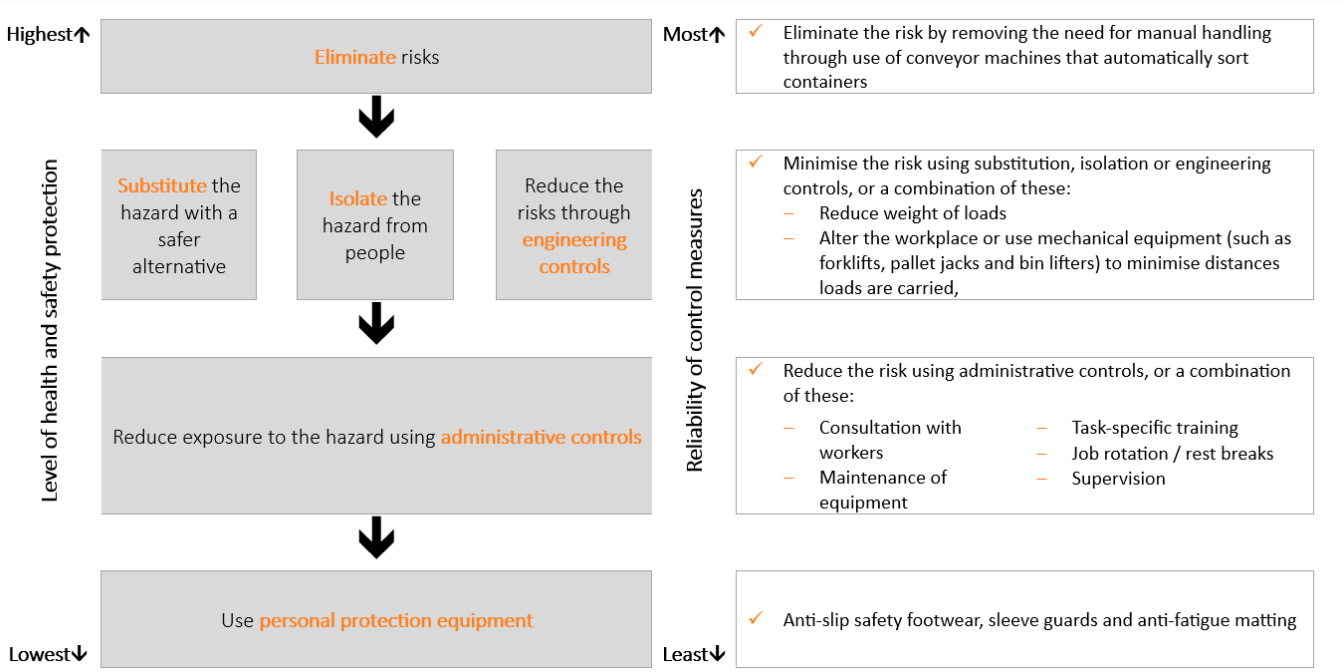

FIGURE 4. HOC [5] (with known scheme manual handling controls exampled)

Items to Consider

- The current level of noise protection provided onsite; does it meet the correct class of hearing protection standard.
- If not already in use, mechanical lifting aids such as bin lifters, use of team lifting, and / or changing the layout of the workplace; particularly where there is a high volume of commercial glass
- Consultation with workers to identify any increase in risks of sprain and strain to hands and wrists.
- Do site procedures consider wine and spirit bottles and are workers trained
- Risk assessment of manual handling of glass wine & spirit bottles including capacity of workers to accommodate this without strain or strain injury.

More information can be provided by the WHSE Team on how to adequately assess these items.

DISCLAIMER