

# Safety in Refuse Handling Equipment – Safe Operations of Waste Storage Equipment



**By Jonah Joshua Simon**  
**Acting Executive Director and**  
**Head, WMRAS Academy**



**WMRAS**  
Waste Management & Recycling  
Association of Singapore

# WHAT IS SAFETY?

Safety is defined as the condition of being protected from, or unlikely to cause danger, risk, or injury.

Waste handling equipment can be seen in Commercial Complexes, HDB Blocks, Markets and Hawker Centres, Hospitals, Office Buildings, etc..... Wherever there is human activity!

These equipment are provided to store waste temporarily, until collected for disposal. Being a mechanically operated device, these equipment have many moving parts and is powerful, to lift heavy containers such as bulk bins which can weigh up to 500 kg.

**SO SAFETY IS OF UTMOST IMPORTANCE**



# So How Do We Ensure Safety?

- **Identify** the people who handle such equipment and ensure that they are trained to handle such equipment.
- **Train** the identified groups on the proper operations of the equipment and be familiar with emergency procedures.
- **Require** them to be WSQ certified to be competent in handling these refuse storage systems
- **On-The-Job-Training (OJT)** for approved users to ensure their competency is tested and in line with the training they received.



# WHAT ABOUT DISTRIBUTORS OF THESE EQUIPMENT?

- Our local engineering firms design and produce refuse storage equipment:
- conform to international standards
- Seek approvals from agencies on conformance to regulatory requirements and standards and safety



# WHAT ARE THE CRITICAL POINTS TO WATCH OUT? (1)



Red/White  
LABELS/STRIPS



# WHAT ARE THE CRITICAL POINTS TO WATCH OUT? (2)



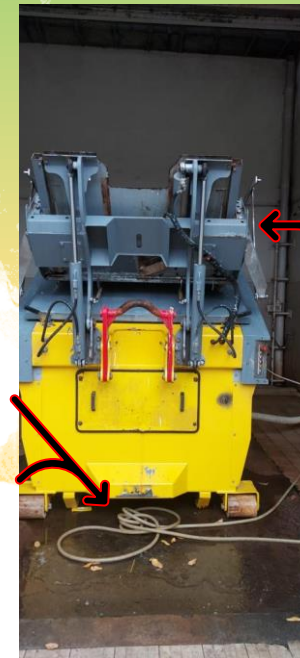
Shows moving parts  
for fixed systems



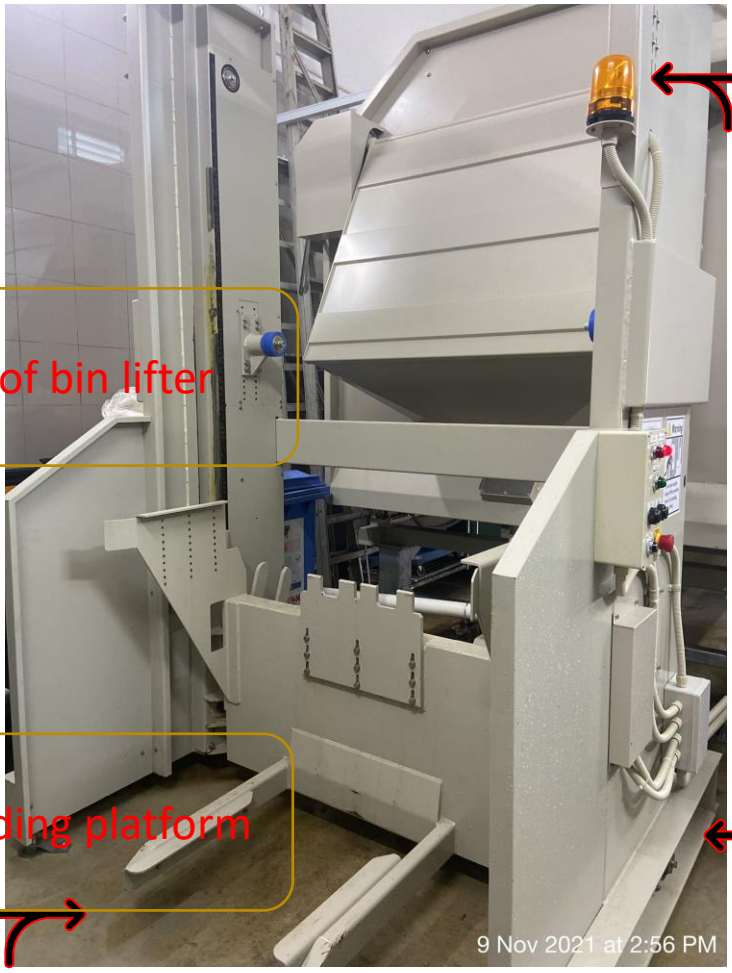
# WHAT ARE THE CRITICAL POINTS TO WATCH OUT? (3)



Shows danger areas  
and unavoidable  
obstructions for  
compactors



# WHAT ARE THE CRITICAL POINTS TO WATCH OUT? (4)



Warning light for Operations

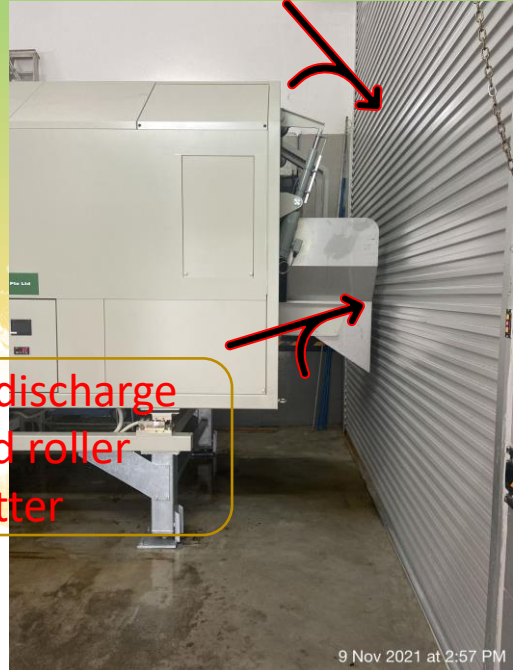
Shows danger areas and obstructions dust drums

Operator position

Side of bin lifter

Bin loading platform

9 Nov 2021 at 2:56 PM



Between discharge tray and roller shutter

9 Nov 2021 at 2:57 PM

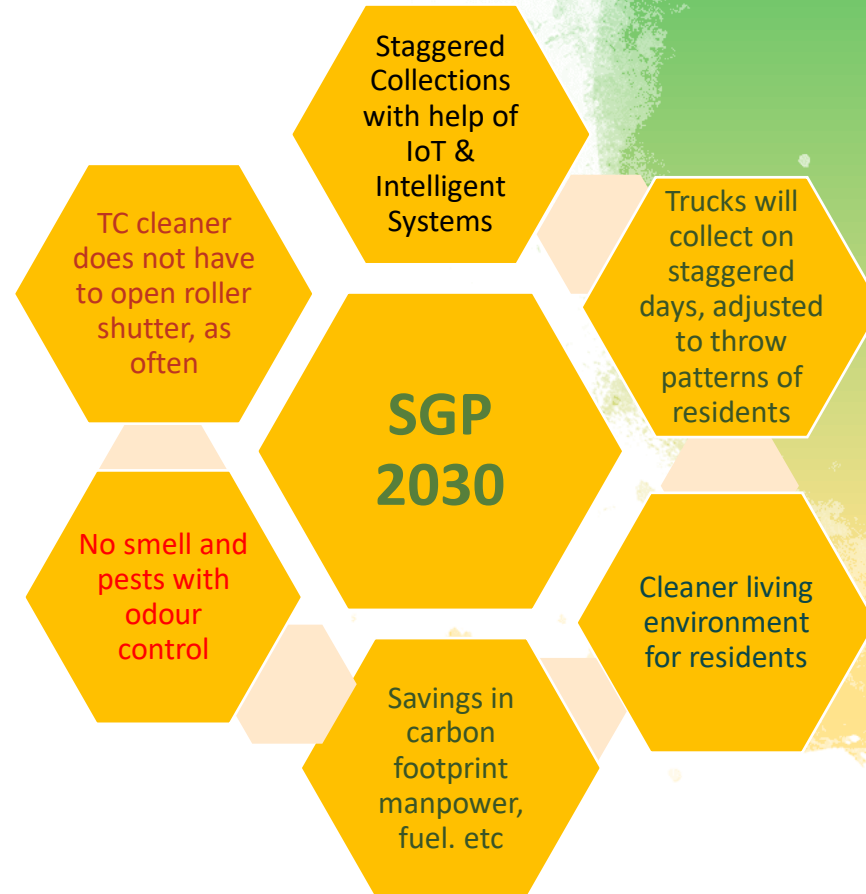


# WHAT ARE THE CRITICAL POINTS TO WATCH OUT? (4)



# Moving forward to Smart And Sustainable Systems and Equipment

- Refuse storage systems are constantly being reviewed and replaced, as we move forward with Smart and Sustainable Systems and Equipment in line with MSE's Sustainable, Resource-Efficient and Climate-resilient service provision under the Singapore Green Plan 2030.





THANK YOU



**WMRAS**

Waste Management & Recycling  
Association of Singapore



[WWW.WMRAS.ORG.SG](http://WWW.WMRAS.ORG.SG)



@WMRASOFFICIAL