



Systemic Safety Alert **Machinery Safety of Waste Recycling Industry**

Major systemic safety problems

The waste recycling industry often requires the use of machinery for conveying, crushing, cutting, compressing, baling work, etc. If adequate measures are not taken and the dangerous parts of the machinery are not effectively guarded, serious or even fatal accidents may occur while workers operating the machinery. The following are the major systemic safety problems attributed to the occurrence of accidents:

- failure to conduct task-specific risk assessments and formulate appropriate safe work methods in accordance with the risk assessments;
- failure to implement risk control measures and effective inspection programmes;
- failure to provide effective guarding to the dangerous parts of the machinery;
- inadequate controls and monitoring to ensure the continuous effectiveness of risk control measures; and
- failure to provide workers with adequate safety information, instruction and training.

Accident prevention measures

Registered Safety Officers (RSOs) should advise their employers/ clients to:

- (i) appoint a competent person to conduct task-specific risk assessments to identify all potential hazards associated with the waste recycling work, having due regard to the working environment, the nature of work, the materials to be handled and the machinery to be used;
- (ii) devise and fully implement the corresponding risk control measures for the operation, inspection, maintenance or repair work in accordance with the results of risk assessments and the machinery manufacturer's specifications/ manuals.



The measures include but not limited to the following:

- providing effective guarding to all dangerous parts of machinery and/ or fencing off danger zones where moving parts are exposed with suitable barriers in order to avoid any persons being endangered by any dangerous/ moving parts of the machinery;
 - when a danger zone is demarcated, exercising strict access control and displaying suitable warning notices at prominent positions to restrict unauthorised persons to gain access to the danger zone;
 - where temporary removal of the guarding/ barriers from the dangerous parts/ exposed moving parts or access to the danger zone is unavoidable during inspection, maintenance, repair or cleaning of the machinery, implementing a permit-to-work system with appropriate safety measures adopted, including switching off the power supply of the machinery and locking it with suitable warning notices displayed before accessing to the dangerous/ exposed moving parts or danger zone; and
 - periodically inspect and properly maintain the guards and/or barrier to ensure effective protection is provided;
- (iii) ensure that operation, inspection, maintenance or repair of the machinery are carried out by persons who are competent by virtue of relevant training and practical experience;
- (iv) take all necessary steps to ensure effective communication among all persons involved in the operation, inspection, maintenance or repair work;
- (v) provide all relevant workers/ employees with necessary safety information, instruction and training, and ensuring that they are familiar with safe working procedures, safety measures and emergency procedures; and
- (vi) establish and implement an effective monitoring and control system to ensure all safety measures are strictly followed.



Registered Safety Auditors (RSAs) should take into account these systemic safety problems and accident prevention measures in executing safety audit functions.

DISCLAIMER

This Systemic Safety Alert is issued to draw the attention of interested parties to the relevant systemic safety problems and accident prevention measures necessary to protect people engaging in similar works activities. The material contained in this Alert constitutes general guidance only. It does not reduce, limit, or replace, any legal obligations upon any person to comply with any statutory duties under relevant legislation. Users such as Managers and Supervisors should make their own evaluation of the information contained in this Alert to determine if it can be applied to their own situations and practices. The Labour Department does NOT accept any responsibilities for any loss or damage resulting from the use of or failure to use the information contained herein.