

(COMPACTORS)

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PROJECT / LOCATION:	DATE: 00-00-2024	DATE OF NEXT ASSESSMENT
Job No.		00-00-2025

TASK / ACTIVITY	
COMPACTORS	

No.				Ris	k Level	Existing Risk Control	Existing Risk Control Additional Risk Control		Resid	lual Risk	Damada
	Hazards	Risks	P R	S	E/H/M/L/N	Measures	Measures	PR	S	E/H/M/L/N	Remarks
1.	Entanglement	Risk of hands, fingers, or clothing getting caught in moving parts like belts, rollers, or hydraulic arms	3	5	Н	Safety guards and barriers to restrict access to moving parts. Emergency stop buttons within reach of operators	Install interlock systems that automatically shut down the machine if guards are opened. Require operators to secure loose clothing, remove jewelry, and tie back long hair. Conduct regular checks on guards to ensure they are not damaged or removed.	1	5	L	
2.	Crushing Injuries	Severe risk of injury from the compactor's compressing components, which can cause crushing if a worker is caught between moving parts or within the	3	5	Н	Safety training on proper operation and awareness of crush zones. Warning signs and labels on crush hazard areas. Emergency stop mechanisms and lockout/tagout (LOTO) procedures.	Motion sensors or light curtains that stop the compactor if an object or person enters a danger zone. Enhanced training on hazard recognition and safe operating distances.	3	5	Н	



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		compacting chamber.					Establish a safety zone with physical barriers around the compactor to prevent unauthorized access				
3.	Machine Malfunctions	Mechanical failure or unexpected operation of the compactor can lead to sudden movements, posing risks to operators or bystanders.	3	5	Н	Routine maintenance schedules and inspections. LOTO procedures during repairs or troubleshooting.	Integrate condition monitoring systems to detect early signs of malfunction, such as vibrations or overheating. Conduct regular training for operators on identifying signs of malfunction and reporting issues promptly. Use only certified parts and trained personnel for maintenance.	3	5	Н	
4.	Noise Hazards	Compactors often produce high noise levels, potentially leading to hearing damage if proper hearing protection is not used	3	5	Н	Provision of hearing protection for operators and nearby personnel. Noise signage to alert workers of high-noise areas.	Install noise-reducing enclosures around the compactor. Conduct regular noise level assessments to ensure compliance with permissible exposure levels. Rotate personnel to limit individual exposure duration in high-noise areas.	3	5	Н	
5.	Slips, Trips, and Falls	The compactor area may have accumulated debris, waste materials, or hydraulic fluids that	3	5	Н	Housekeeping procedures to keep floors around the compactor clear of waste and debris.	Apply anti-slip coatings or paint to the floor around the compactor. Implement visual indicators (such as tape or paint) to	3	5	Н	



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		could cause slip and trip hazards.				Anti-slip mats or textured flooring in high-traffic areas.	mark walkways and safe zones. Regularly inspect the area for spilled fluids, loose materials, or worn flooring.				
6.	Manual Handling Injuries:	Risk of back or musculoskeletal injuries when loading or unloading heavy materials without proper lifting techniques	3	5	Н	Training on proper lifting techniques. Availability of mechanical aids like dollies, carts, or hoists to reduce manual lifting.	Increase the use of automatic or mechanized loading systems for heavy items. Redesign workstations or storage to minimize unnecessary bending, twisting, or lifting. Conduct ergonomic assessments to optimize manual handling tasks.	3	5	Н	3
7.	Fire Hazard	Compactors generate heat and may be at risk of causing fires, particularly if flammable materials are improperly compacted.	3	5	Н	Fire extinguishers available nearby and staff trained in their use. Avoidance of flammable materials or strict protocols for their disposal.	Install fire detection and suppression systems in compactor areas. Conduct regular inspections to ensure no combustible materials are mixed with waste. Provide clear signage about prohibited items (e.g., flammable liquids) near compactors.	3	5	Н	3
8.	Exposure to Hazardous Substances	Compactors used in waste management may expose operators to harmful chemicals,	3	5	Н	PPE requirements such as gloves and respirators when handling hazardous waste.	Introduce specific training on recognizing hazardous waste and proper handling techniques.	3	5	Н	3



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		biohazards, or fumes released during compacting.				Clear protocols for handling and disposing of hazardous materials.	Enhance ventilation in compactor areas to reduce exposure to airborne chemicals. Install contamination monitors and use labeled bins to segregate hazardous waste.				
9.	Electrical Hazards	Compactors are often powered by electricity, which can pose risks of electric shock if maintenance is inadequate or if the unit is improperly handled.	3	5	Н	Regular inspection and maintenance of electrical components. Use of waterproof covers for electrical controls to prevent moisture ingress.	Periodic electrical safety training and drills on emergency response for electrical faults. Lockout/tagout procedures strictly enforced before electrical maintenance.	3	5	Н	3
10.	Dust and Airborne Particles	Compaction may release dust, particularly when working with materials like cardboard or organic waste, which can lead to respiratory issues.	3	5	Н	Dust masks or respirators for workers in high-exposure areas. Dust extraction or ventilation systems in place to reduce airborne particles.	Install dust suppression systems or misting units in compactor areas. Schedule regular cleaning to prevent excessive dust buildup. Increase ventilation rate or add filtration units if dust levels are above permissible exposure limits.	3	5	Н	3



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#### **Risk Matrix**

		Consequences:							
LI			Insignificant	Minor	Moderate	Serious	Major	Catastrophic	6 – Catastrophic – Multiple fatalities
K		1	1	2	3	4	5	6	<b>5 – Major</b> - Single Fatality
ū		2	2	4	6	8	10	12	<b>4 – Serious –</b> Permanent disability
Н		3	3	6	9	12	15	18	3 – Moderate – Lost Time Injury
0		4	4	8	12	16	20	24	2 - Minor - Medical Treatment
O D		5	5	10	15	20	25	30	1 – Insignificant – First Aid Case
_		6	6	12	18	24	30	36	
	24 - 36	Extreme	Immediate action requi	ired, Activity sh	ould not to pro	ceed in current	form		
	15 - 20	High	Prompt action required action and planning.	l, including inte	rim actions. Act	ivity should be	modified to incl	ude remedial	
	8 - 12	Medium	Schedule action includi signage, instructions	ocedures,					
	4 - 6	Low	Activity can operate sul	bject to manag	ement and or m	odification,			
	1 - 3	Very Low/ Negligible	Risk almost certainly ac	cceptable, no ad	ction required u	nless escalatior	n of risk is possik	ole	



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### **Likely Frequency:**

Likeli	Likelihood (of Adverse Event Occurring)											
	Description	Health & safety	Environmental									
6	Almost certain or imminent	Occurs all the time	Continuous or will happen frequently									
5	Highly likely	Common occurrence, Occurs multiple times in a year	Happens 5 – 10 times per year									
4	Likely or could occur	Know to occur in the last 12 months	1 – 5 times per Year									
3	Not likely, but possible	Has occurred in an industry worldwide	Once every 5 years									
2	Unlikely	Has not occurred in over 10 years of the same activity	Not happened in over 10 years									
1	Para	Theoretically possible, but not expected to occur	theoretically possible, but not expected									
	Rare	Theoretically possible, but not expected to occur	to occur									

Prepared by: HSE Engineer		Reviewed by: HSE Mana	ger	Approved by:			
Sign:	Date:	Sign:	Date:	Sign:	Date:		