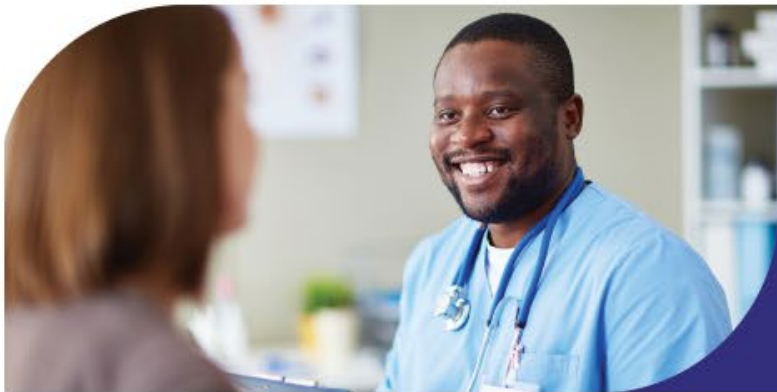




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Health and Safety Authority

May 2023 Quarry Safety Campaign Guarding and Maintenance Safety



NAME Hilary Byrne Senior Inspector

DATE 8th May 2023

Safety Theme

Safe Machine, Safe Maintenance

By NACE SECTOR & 4 Digit

NACE Sector	NACE 4 digit
B - MINING AND QUARRYING	Total
	0811-Quarrying of ornamental and building stone, limestone, gypsum, chalk and slate
	0812-Operation of gravel and sand pits; mining of clays and kaolin
	0899-Other mining and quarrying n.e.c.
C - MANUFACTURING	Total
	2332-Manufacture of bricks, tiles and construction products, in baked clay
	2351-Manufacture of cement
	2361-Manufacture of concrete products for construction purposes
	2363-Manufacture of ready-mixed concrete
	2369-Manufacture of other articles of concrete, plaster and cement
	2370-Cutting, shaping and finishing of stone
	2399-Manufacture of other non-metallic mineral products n.e.c.
Total	

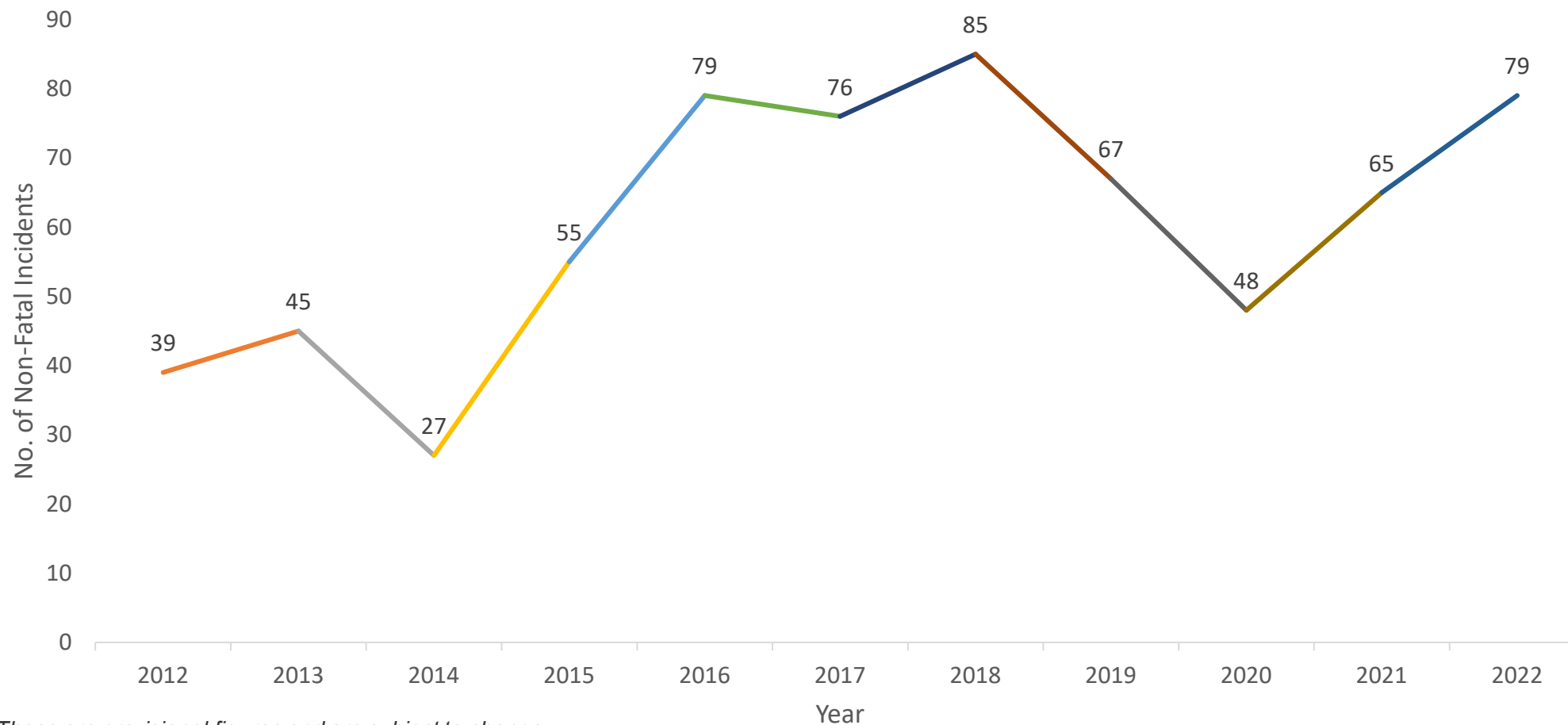
Non-fatal Incidents 2012 - 2022

Total Incidents: 665



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By Year



These are provisional figures and are subject to change

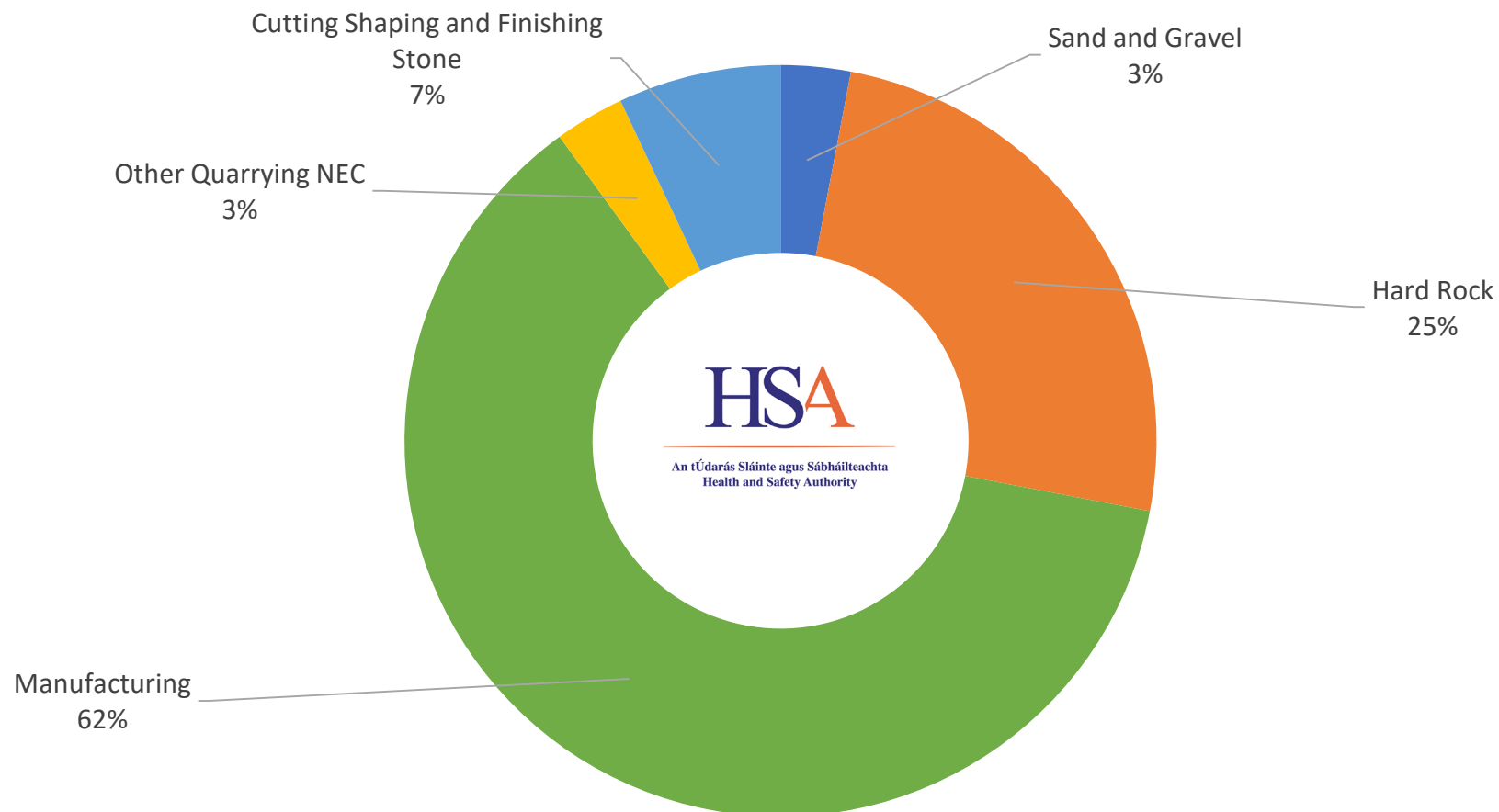
Non-fatal Incidents 2012 - 2021

Total Incidents: 586



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By Area



These are provisional figures and are subject to change

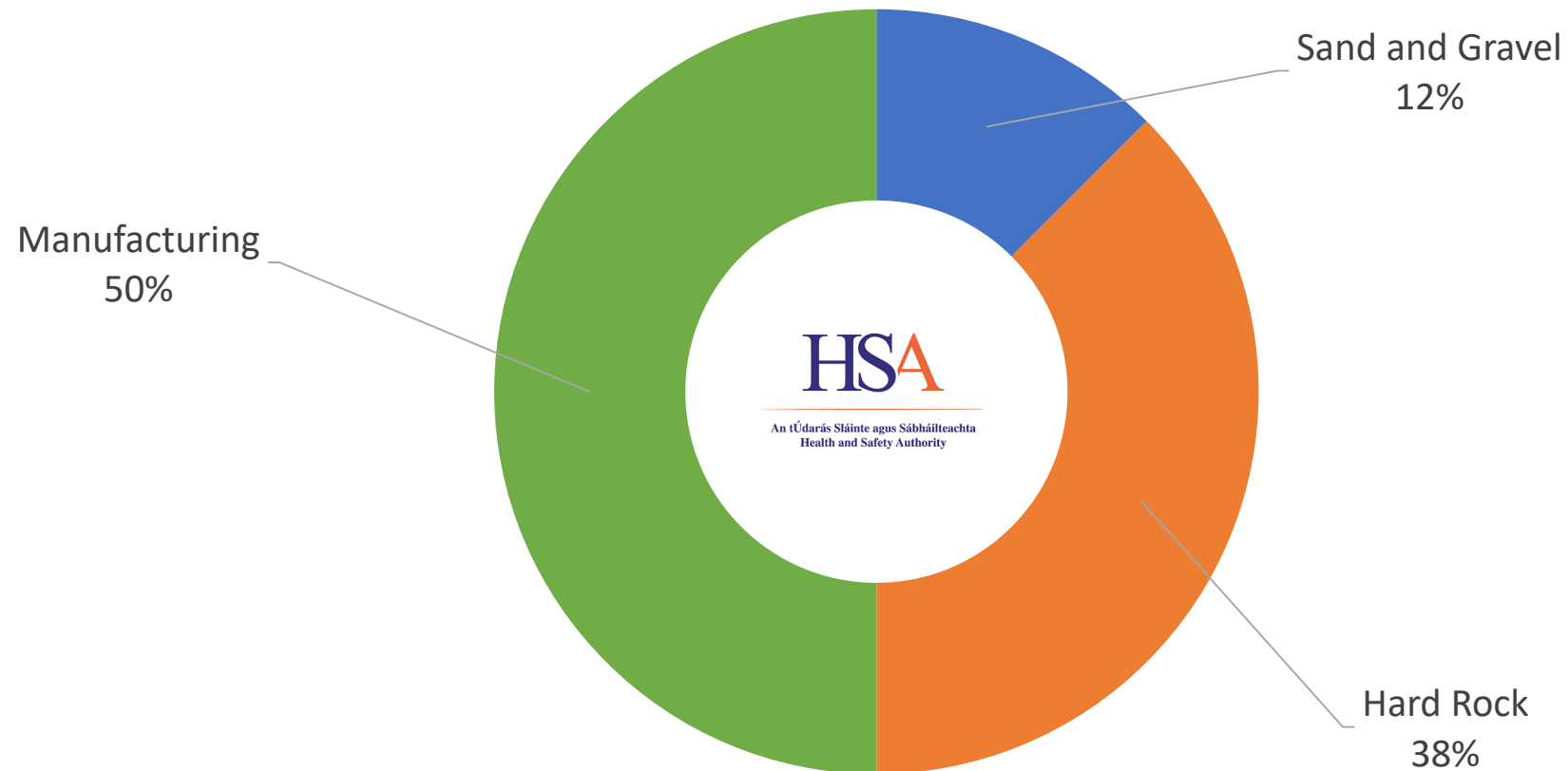
Fatalities 2012 - 2021

Total Fatalities: 8

By Area



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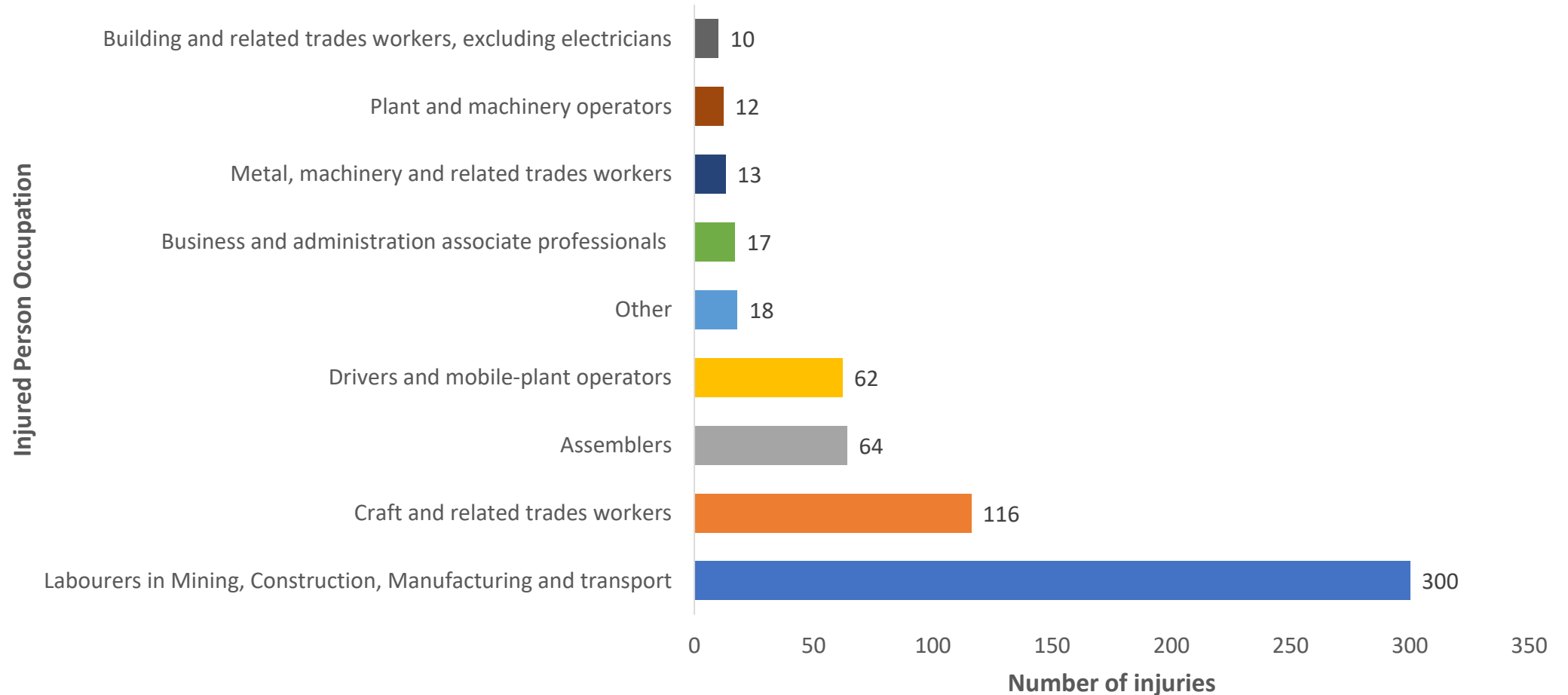


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Non-fatal Injuries by Injured Person Occupation 2012 - 2022



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These are provisional figures and are subject to change

Risk Assessment and Training Questions

Risk Assessment and Training Questions

1. Is there a specific risk assessment for each machine and the hazards associated?
2. Are there specific risk assessments for planned maintenance activities?
3. Are risk assessments completed for unplanned maintenance activities?

Hazard Identification & Risk Assessment

1. Identification of hazards.
2. Evaluate the risk
3. Document & implement appropriate controls.
4. Audit procedures regularly to ensure compliance.



Training Requirements

4. Is safety induction carried out for employees and contractors?
5. Does safety induction include isolation procedures and requirements?
6. Has training been provided to relevant personnel in Permit to Work (PTW) and/or Lock Out/Tag Out (LOTO) systems?
7. Are up to date training records available for employees and contractors engaged in maintenance?
8. Where applicable, have operatives received confined space training?

The image shows an open safety form, likely a Lock Out/Tag Out (LOTO) or Permit to Work (PTW) system. The left page is titled "Isolation Owner - LOTO/PTW" and contains sections for "Nominated person applying the padlock(s)", "Personnel completing the works", and "Nominated person removing the padlock(s)". The right page is titled "CONTROL MEASURES" and lists various safety measures such as "Isolation of electrical", "Isolation of mechanical", "Isolation of hydraulic", etc. The form is spiral-bound and appears to be a standard safety document used in industrial settings.

Guarding and E Stop Questions

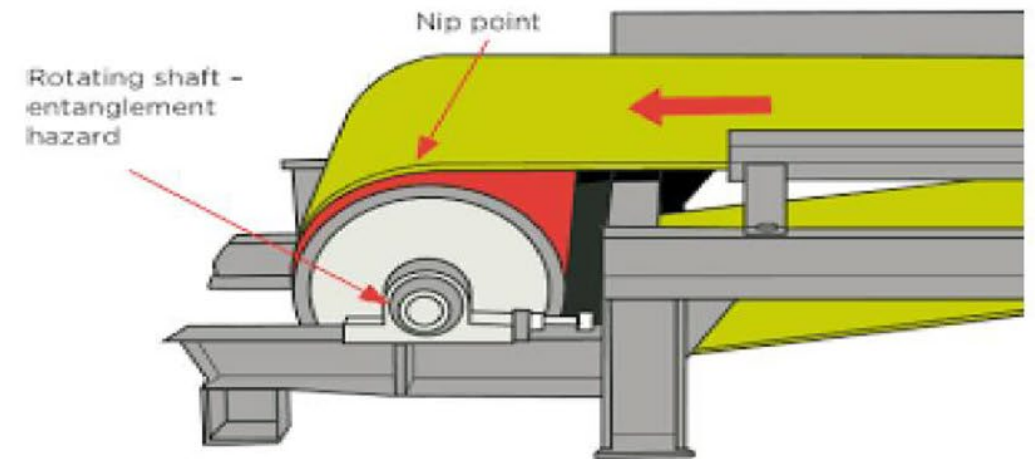
Guarding and E Stop Questions

1. Are appropriate guards in place to prevent contact with moving parts of machinery where such contact could lead to a serious or fatal injury?
2. Are fixed guards adequately secured, needing a tool to remove them?
3. Are there emergency stops fitted?
4. Are the emergency stops readily identifiable?
5. Are the emergency stops clean and operational?
6. Are routine checks of emergency stops carried out and documented?
7. Where necessary are pull-cords provided and operational?
8. Are routine checks of pull-cords carried out and documented?



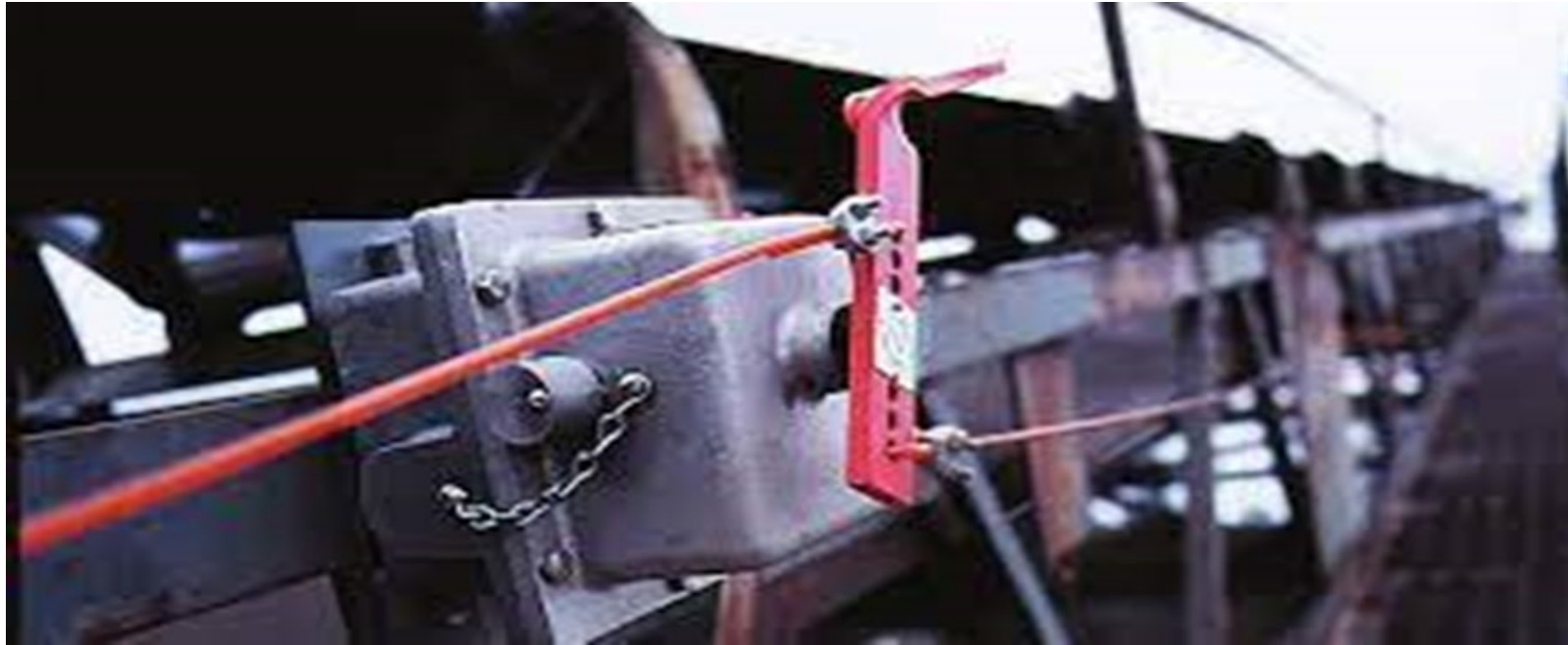


Head Drums and Tail Drums





Pull Chords



Maintenance & Isolation Questions

Maintenance & Isolation

- 1. Are there suitable records made of inspections and testing of plant and equipment?
- 2. Is there a planned preventative maintenance program in place?
- 3. Are maintenance programs documented and work carried out recorded?
- 4. Do the operating procedures identify the isolation procedures and isolation required?
- 5. Is there a Permit to work (PTW) system used for maintenance in confined spaces?
- 6. Is PTW documented and does it outline the protective and preventative measures to be fulfilled?

Maintenance & Isolation

7. Are there procedures in place to prevent unauthorized start up for maintenance operations or repairs? E.g. captive key/key interlock or lock out/tag out (LOTO) system.



8. Have personnel working on plant been issued with personal padlocks?
9. Are locks uniquely keyed?
10. Are control panels clean and labelled so that controls are easily identifiable?
11. Are power sources secured, located away from a hazard and easily isolated?
12. Are serviced fire extinguishers in place at key locations?



Maintenance & Isolation in Block Plants



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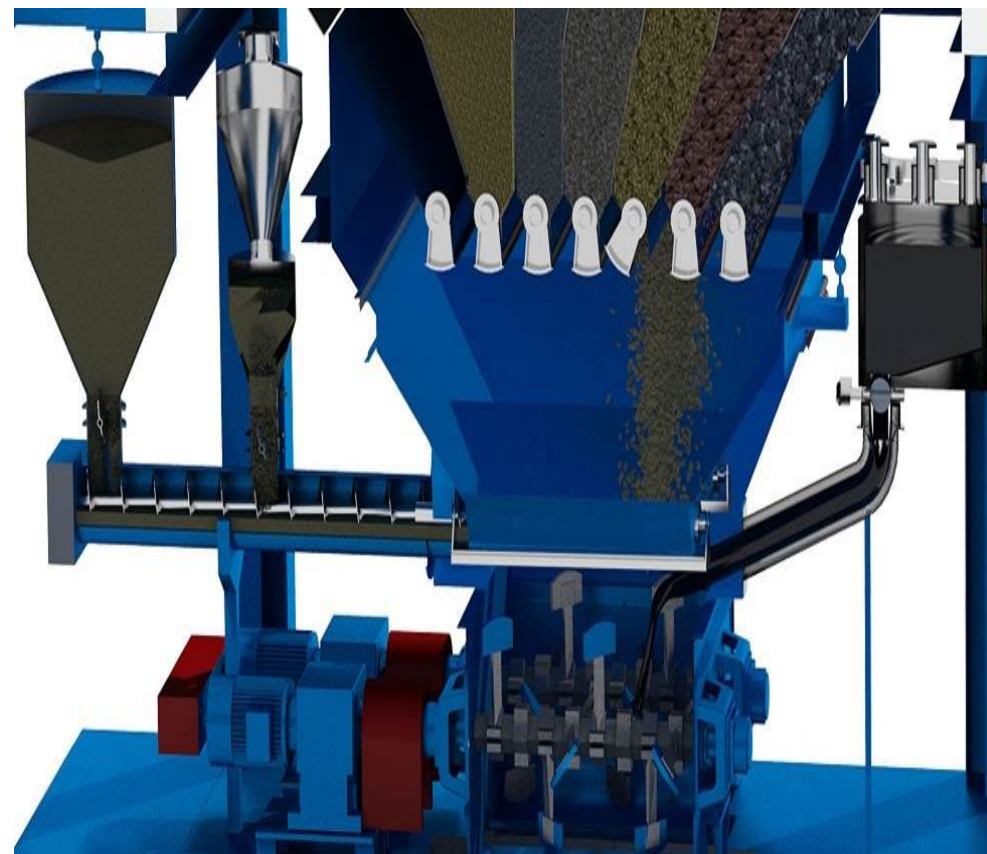


Maintenance & Isolation in Batch Plants



Maintenance & Isolation in Tar Plant

- Screw Conveyors,
- Drives, motors and chains
- Mixing Tower
- Hot screening Bin



13. Is safe access provided and maintained?
(Steps, platforms, gantries etc)



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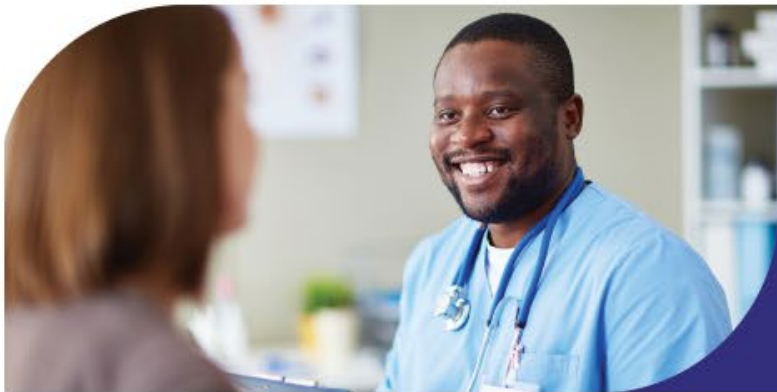




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Go raibh maith agaibh
Thank you



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