

لغة - صناعة

الحل المقترح
مادة

التصانيف الصناعية

الفرقة - رابعة صناعية - لائحة صيد

→ استلام هذا من عبد العزيز

— (15 MARK)

- 1) ① Sure that safety program is i and implemented.
- ② Enforce all safety equipments.
- ③ Make sure that all employees might come and concerned about safety.

- b) ① Risk root analysis
- ② Risk assessments
- ③ RCA

$$\text{Risk} = \text{Severity} \times \text{probability}$$

- (c) 1 - Implement safety program.
- 2 - Training Labors
- 3 - provide awareness program
- 4 - HSE M & OSHA

(d)

Near miss: Discover hidden hazard
(unsafe conditions)

- 1- No awareness of the operator
- 2- The operator isn't specialist
- 3- Harm to operator by failure at the
- 4- bad eye sighting to driller when working
- 5- drilling tool isn't properly centered

(F) Fuel tank

Unsafe act

- 1- No continuous clean to tank before check it
- 2- Firing next to tank
- 3- Increasing pressure in tank
- 4- Not controlled by responsible for it
- 5- Not inspection for safety valve.

Unsafe condition

- 1- Safety valve is not suitable
- 2- Improper placed
- 3- Design tank is u
- 4- No awareness.
- 5- Leakage in the tank

Lifting Machinery

unsafe act

- 1- No skilled operator
- 2- overspeed

Unsafe condition

- 1- old machine
- 2- eccentric

ing and welding operations

unsafe act

- 1 - Fatigue at operating
- 2 - Unskilled operator
- 3 - Use any type to make weld.
- 4 - Working on movable area's
- 5 - operator isn't wear safety

Unsafe conditions

- 1 - Bad Ventilation
- 2 - Electricity wires isn't isolated.
- 3 - Improper tools for
- 4 - No Firefighting
- 5 - No safety wear

Q2: (15)

① Incidence rate.

For 2008

$$IR = \frac{3}{7000} = 0.000429$$

For 2009 $IR = 0$

② Accidents

For 2008

$$AR = 0.000288$$

For 2009

$$= 0.00043$$

3 : (20)

1 - Near miss analysis

- Near miss at 2008 < 2007

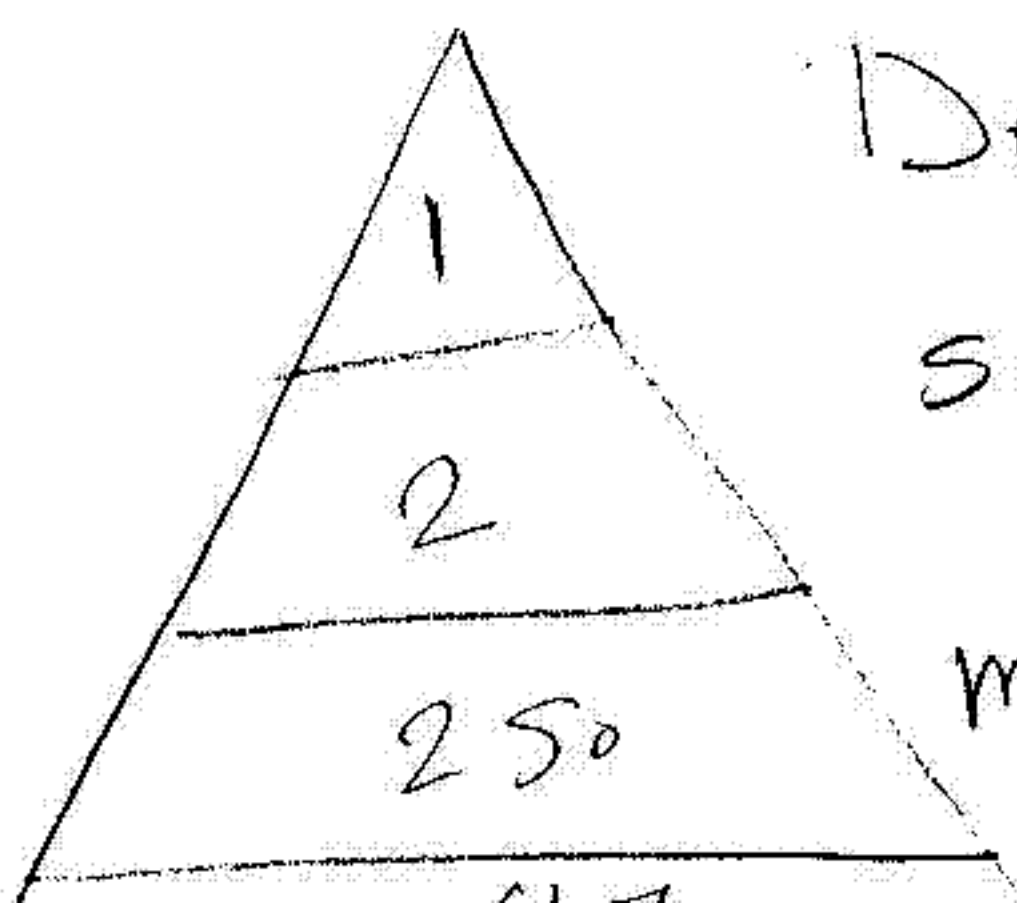
- At year 2007

48% of total near

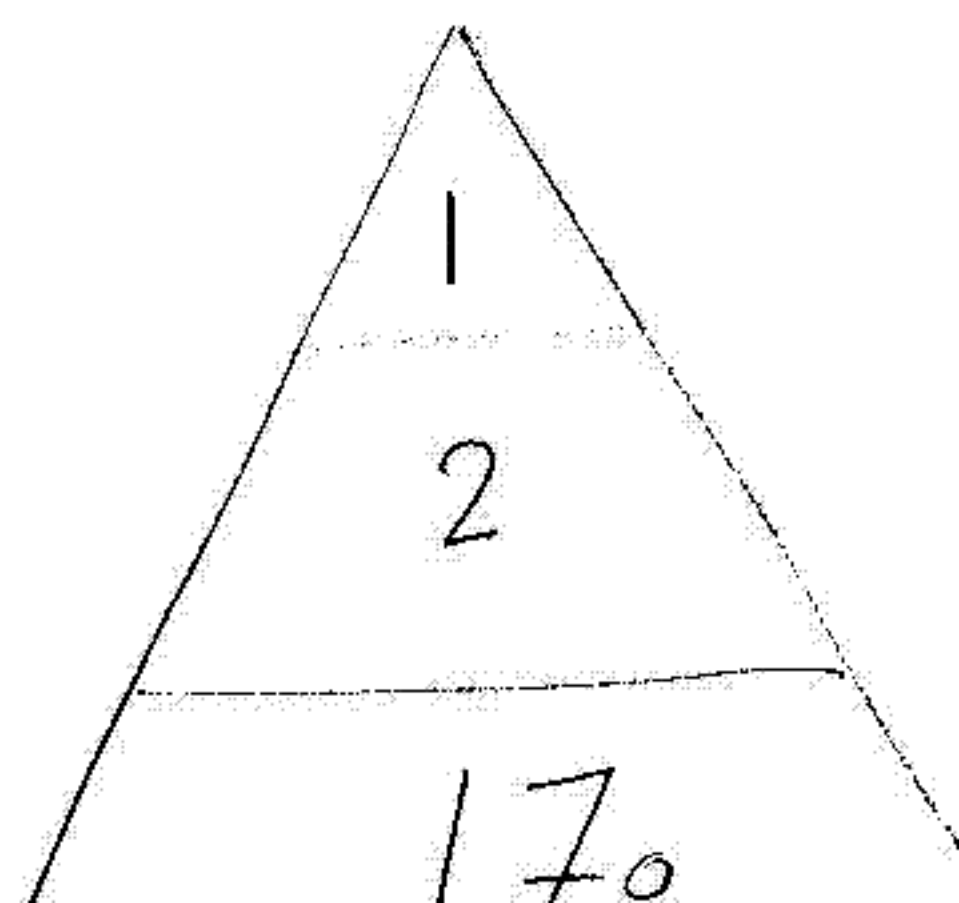
- At year 2008

58.5% of total near mi.

- Process responsibility is the lower misses it is 150 of 728 at 2007 and 95 of 598 at 2008



Death
sever
moderate



RISK Assessment

For 2007

Near Miss	Responsibility		Main
	process	utilities	
- Low	L	L	M
- Moderate	M	M	M
- high	-	H	-
	M	H	M

For 2008

Near Miss	Responsibility		Main
	process	utilities	
- Low	L	L	M
- Moderate	M	M	H
- High	-	H	-
	M	H	M

Q4 (20)

Case 1

hazard types

- Mechanical hazard, ϕ
 - Physical hazard
 - biological hazard
- Risk analysis

	Mechanical	physical	biolog
- Severity	M	M	H
- probability	L	M	H
- Risk level	M	H	H

Case 2

hazard types

Risk Analysis

	Mechanical	Physical	biological
Severity	L	H	-
probability	L	M	M
Risk	L	H	H

Cases

Hazard types

- 1 - Chemical Hazard
- 2 - Biological ~
- 3 - Mechanical ~

Risk Analysis:

	Mech.	Biological	Chemical
Severity	L	M	H
Probability	L	L	M
Risk level	L	L	H

Case 4

	Physical	Biological	Chemical
Severity	L	M	H