

Description of the Accident:

In ammonia plant for abuqir 2 plant, during rising one of the workers to the top of absorption tower to check the trays of the absorption tower by crane suspended man basket. The crane shacked causing slipping the worker and fell out from the basket. Thanks God, He was wearing full body harness and he was still hold by the harness robe but he was injured in his shoulder in addition to some wounds in his left leg.

Causes of the Accident:

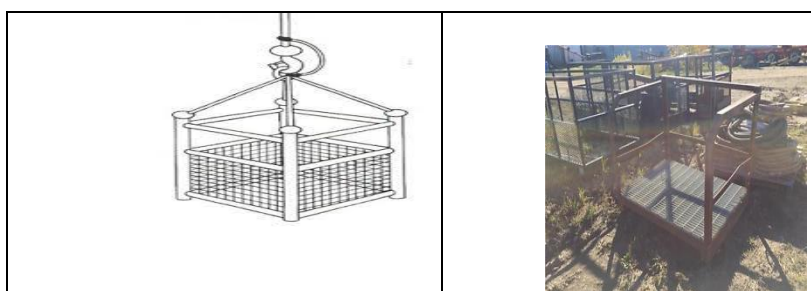
Unsafe Conditions

- Crane man basket wasn't include standard features.
- Full body harness wasn't contain a shock absorber.
- Crane driver accelerated the crane speed while rising workers in basket



Full body harness with shock absorber

full body harness without shock absorber



New Design

Old Design

Corrective action(s):

- Full body harness with shock absorber lanyard is only product recommended.
- Crane man basket must include standard features & tested each time it is used
- Re-awareness for the crane drivers for the safety precautions

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Description of the Accident

One of the workers of stacking sacks was injured by electric shock during his work on one of the loading trucks in ammonium nitrate packing unit. Ammonium nitrate packing unit present in abuqir 2

Causes of the Accident:

Unsafe Conditions

- the hygroscopic nature of ammonium nitrate & high humidity weather in Egypt this conditions causes the rapid conductivity of electricity especially in condition where ammonium nitrate accumulation which has bad effect on insulation of wiring & power cables.



Insulated wire with anti-corrosion layers

Corrective action(s)

- Use cables with overlying insulation layer which has high resistance for surrounding environment.
- Reducing the voltage of the 50 kg loading track to 24 volt.

Description of the Accident:

During coil metallic wire to fire hose male female coupling by competent maintenance technician for fixation. The metallic wire was suddenly cut during stretching around the fire hose male female ends. As a result, maintenance technician was injured in his right eye.

Causes of the Accident:

Unsafe Conditions:

- Metallic wire which used, was cut during maintenance of fire hose.
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Machine maintenance fire hoses



Manual method

Corrective action(s):

- Maintenance of fire hose male female ends must be mechanized to reduce human intervention, which in turn leads to reduce casualties in case of interruption of the wire or any other error.

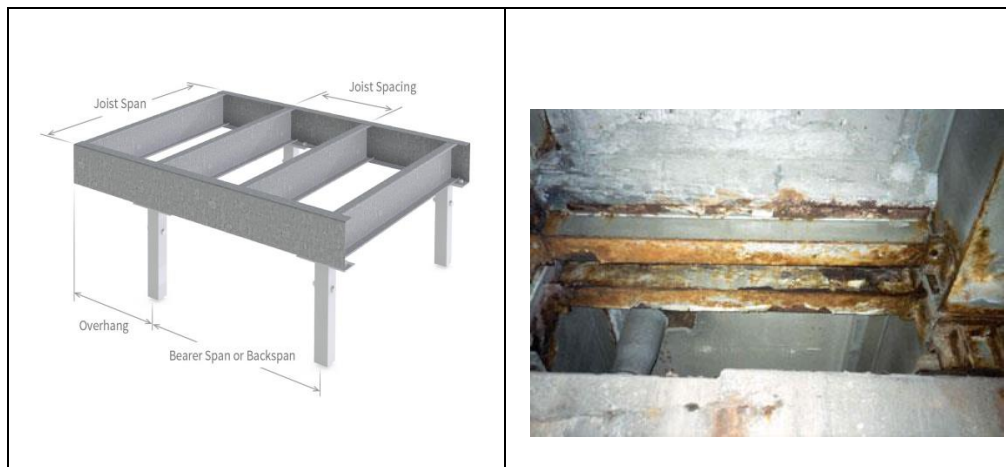
Description of the Accident:

Falling one of the workers who was inside electrical substation, down the floor of. Electrical substation is present in ammonium nitrate handling unit in abuqir 2 factories. Collapse part of floor trusses leads to this accident.

Causes of the Accident:

Unsafe Conditions:

- Corrosion of trusses and supports of the floor where it was made of galvanized steel.



Corrective action(s):

- Good sealing of all substations walls & ground to avoid any AN attack.
- Reviewing of all floors trusses of other substations.
- Changing the galvanized steel floor trusses to stainless steel.

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Description of the Accident

In Urea handling unit, one of the worker arrange 50 kg bags of urea fertilizer over the trailer. After he finished arrangement, his foot was slipped during coming down by stair. The stair is not suitable for coming down but rise of stair is easy for the workers. Height of stair is the same height of trailer level. After arrangement bags of fertilizer on trailer, height of stair is less than height of trailer level in addition to height of arranged bags. Therefore, he faced some difficulties during coming down.

Causes of the Accident:

Unsafe Conditions:

- Height of fixed stair is not suitable during coming down after finishing his work



Corrective action(s):

- Modify height of fixed stair to be suitable for height of trailer level and arranged fertilizer bags on trailer.
- Reviewing the similar cases in all plants

Description of the Accident:

In urea plant for abuqir 3 factories, While one of the workers checked the leakage flange, grating platform steel structure collapsed which led to fall the person to the bottom floor. He was wounded in his head and also was taken off his hinge left collarbone.

Causes of the Accident:

Unsafe Conditions:

- Improper putting of grating segments of the platform.



Corrective action(s):

- Re-fixation of segments properly.
- Re-welding of broken pieces by arc welding.
- A review of all the existing of platform.

Description of the Accident:

While the forklift was going back, it collided with one of the inspection technician causing infection in his feet.

Causes of the Accident:

Unsafe Conditions:

- Lack of audible alert forklift system and damage the reflective mirrors.
- Lack of side mirrors.
- Lack of awareness for the driver.



Corrective action(s):

- Reviewing all forklifts in the plants to assure:-proper side mirrors & presence of active audible and lighting warning.
- Re-awareness for all forklift drivers for safe driving

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Description of the Accident:

One of the maintenance technician was injured in his right hand. He was trying to help marine technician for landing a motor and transport to his workshop.

Causes of the Accident:

Unsafe Action(s):

- Maintenance technician is non-specialist for landing a motor.



Corrective action(s):

- All workers must undergo to training program to raise their safety culture.
- Assuring the role of supervision.

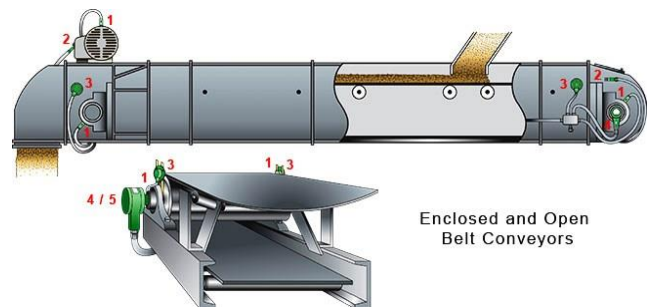
Description of the Accident:

In urea handling plant for abuqir 3 plant, a technician tried to adjust the limit switch for one of the conveyors. He slipped which led to break his right hand.

Causes of the Accident:

Unsafe Action:

- The technician is not competent to adjust limit switch. It requires work permit to electricity sectors for this work.
- The ladder which used is not installed correctly and also the floor filled with liquefied fertilizer.
- He was not use safe ways for rising to adjust limit switch as scaffold or fixed ladder.



Corrective action(s)

- Work permit is necessary for any maintenance either mechanical or electrical. It is forbidden for anyone to execute any specialized work, it requires qualified persons for this task.
- The workplace must be cleaned continuously.
- Work at heights required work permit and must obey to safety instructions.

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Description of the Accident:

In NPK handling unit, while one of the workers welds fertilizer bag in 50 kg bags packing machine, his hand squeezed in rotator of 50 kg bags packing machine. His right hand was injured.

Causes of the Accident:

Unsafe Action:

- Safe guard of
- rotator in 50 kg bags packing machine was removed by the worker.



Corrective action(s):

- proper fixation of the safe guard.
- The workers must obey to supervision and revision for work steps.
- Re- awareness for all technicians in the unit.
- Safe guard is very important for any rotator
- Recheck for welding machines all over the plant

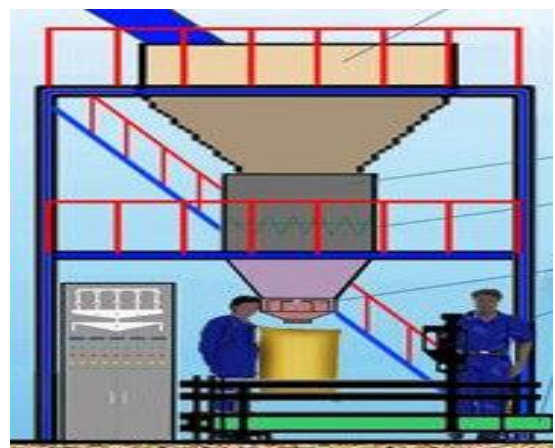
Description of the Accident:

In NPK handling unit, while worker tried to clean flap of scale for 50 kg bags packing machine, he touched the load cell of 50 kg bags packing machine which led to closing flap of scale on his hand. as a result, he was wounded on his hand.

Causes of the Accident:

Unsafe Action

- The worker tried to clean that machine without isolation of electrical power.



Corrective action(s):

- Lock out-Tag out system must be applied to any electrical machine before maintenance.
- Training program for all workers in NPK handling unit concerns to know the hazards inside unit and avoid those.
- Assuring the role of supervision

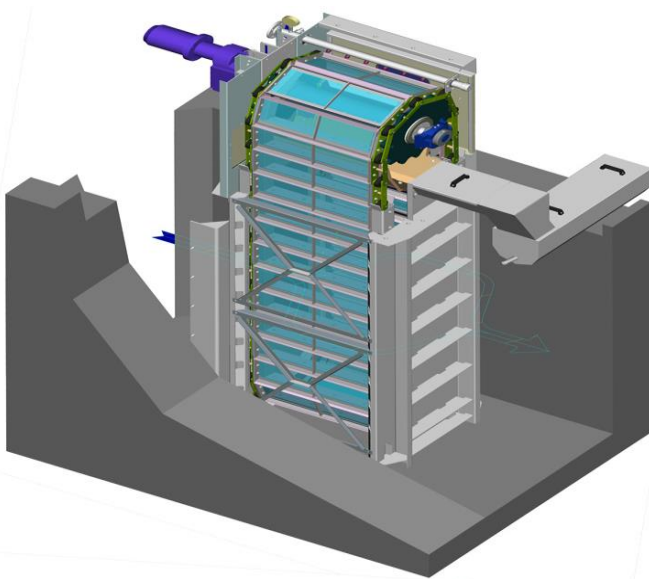
Description of the Accident:

In water intake unit, while mechanical maintenance disassembles the screws of band screen, his hand collided with invisible sharp object. As a result, his right hand was wounded. Band screen is used for primary water treatment such as removing solid and impurities.

Causes of the Accident:

Unsafe Action:

- He wasn't used his PPE.
- Lack of attention during work.



Corrective action(s):

- PPE must be used especially gloves for this case
- The workers must take attention during work.
- Re-Awareness for all maintenance workers for safe procedure

Description of the Accident:

During one of the workers was going to his workplace (control room), he was obstructed on one of outstretched drain lines above ground level which led to tearing in his knee.

Causes of the Accident:

Unsafe conditions:

- Drain lines is Outstretched above ground level.



Before Modification

After Modification

Corrective action(s):

- Lay all the outstretched drain lines under ground level.
- Reviewing all cases represent the same hazard.

Description of the Accident:

While the welding technician was checking the acetylene cylinder and torch in the welding workshop. A fire occurred due to exit of an amount of flammable gas, which led to injury his right hand.

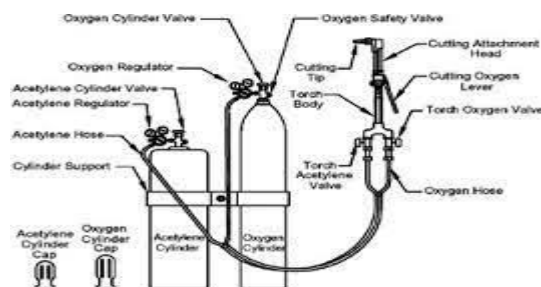
Causes of the Accident:

Unsafe conditions

- Absence of two non-return valves
- the pressurized hose was not vented when the work is finished
- Lack of training.
- Lack of applying the proper procedure of the use of such equipment.

Unsafe Action

- absence of wearing the personal protective equipment



Corrective action(s):

- Ensure that the hoses are valid and presence of 4 non-return valves (2 at 2 ends).
- Use an appropriate flow which prevent occurrence of backfire
- Keep the work environment clean.
- Wearing the personal protective Equipment
- Re awareness for proper procedure that should be followed at end of work

Description of the Accident:

Worker was injured in his leg due to falling of hammer head during use in disassembly of a valve in valve workshop. This is because of improper fixation of hammerhead to wedge.

Causes of the Accident:

Unsafe conditions:

- The use of improper and defective equipment



Corrective action(s):

- Use safe for work equipment is a must .
- Review for all hand tools in the work shops
- Re awareness for all technical procedure in workshops.
- Role of supervision is very important.