An Analysis on Occupational Fatalities Casebook

(Volume 4)

Occupational Safety and Health Branch
Labour Department

Occupational Safety & Health Council

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Volume 4

Contents

Foreword

Workplace accidents not only cause sufferings to the victims and their families, they also result in costs arising from stoppage of work, insurance claims, medical and rehabilitation expenses, etc.

Most workplace accidents could be prevented. Very often, they share common scenarios and causes. These scenarios and causes should be properly understood in order that lessons are learnt and suitable measures implemented to prevent recurrence of such accidents.

This casebook gathers a collection of fatal accidents at work. It can be used for experience sharing to help prevent the recurrence of such accidents. It is hoped that workers and managers involved in such work activities will learn the lessons from the casebook. Safety training institutes will also find the casebook useful for conducting case studies.

Occupational Safety and Health Branch
Labour Department
March 2008

CASE 1

Case 1

A workman fell from a height to death

Scenario

The deceased was appointed to replace part of the drainpipes at the carpark of a building. A bamboo scaffold was erected for the work. After the drainage works were completed, the bamboo scaffold was dismantled. The deceased intended to clean the workplace before handing over. He climbed up to a beam by a ladder for the cleaning work. During the work, he fell from the beam and sustained the fatal injuries.

Case Analysis

- There were two beams at the carpark level of the building. One was 2.8 metres and the other 4 metres above the ground. The beams were 0.3 metres wide.
- The wooden ladder was 3.7 metres long. It was leaning, at an angle of about 70^{o} to the ground, on a fire services pipe running by the side of the lower beam.
- Nylon ties were found on the top of the upper beam and the ground, but not on the lower beam. It was believed that the deceased had climbed up to the lower beam by the ladder, walked on the top of the beam and swept away the nylon ties. As the width of the beam was only 0.3 meters wide, he slipped and fell to the ground while working from it.
- There was no working platform and no anchorage for hooking lanyards of safety belts at the place of the accident.

Lessons to Learn

The principal contractor responsible for the site and/or the employer of the workman should provide:

1. A properly maintained scaffold that is equipped with suitable working platforms and safe means of access and egress to and from the working platforms for the workman to carry out the cleaning work at a height.
2. Sufficient information, instruction, training and supervision to the workers to ensure their safety at work. As far as practicable, the work carried out at a height is closely supervised by a competent person.

Case 2

An electrician electrocuted by live wire

Scenario

The deceased was an electrician. He was employed by an electrical sub-contractor to work on the site. On the day of the accident, while other renovation workers were taking the afternoon tea break, the deceased continued with his work. He was connecting the power supply wires to the electric motor of the roller shutter being installed at the front entrance of the ground floor unit. Before the wiring work, the deceased went to the distribution panel installed at the rear of the unit beside the internal stairway leading to the mezzanine floor to switch off the electricity supply. He then proceeded with the wire connection work on his own on the mezzanine floor. After the other workers finished their tea break and resumed work on the ground floor for about 30 minutes, they found the deceased electrocuted on the mezzanine floor.

Case Analysis

- The electricity supply from the power company was connected to a main distribution panel installed on the wall at the rear of the unit. All electric circuits on the premises were supplied by this distribution panel and the circuits were protected by circuit breakers. However, identification of respective electric circuits was not clearly marked on the distribution panel. There was a hinged type metal cover to shield off the circuit breakers. By design, the metal cover was kept closed by its own weight. However, there was no locking device to prevent the circuit breakers from being interfered by other workers.
- Power supplies to the artificial lighting both on the ground floor and mezzanine floor were shut down during the afternoon tea break. After the tea break, without checking why the power supply was switched off or whether someone was carrying out electrical work, one of the renovation workers switched on the power supply at the distribution panel to get electricity for the general lighting and the power driven machinery.
- The distribution panel was located on the ground floor and the deceased was working on the mezzanine floor. As the power supply of the artificial lighting on the mezzanine floor was shut down, the mezzanine floor was dark and the other workers who were working on the ground floor could not see the deceased easily. They thus had a mistaken belief that no one was working on the mezzanine floor. The deceased was electrocuted by the electric wire he was connecting when the electric supply suddenly energised.
- There was no arrangement to lock out the distribution panel to prevent interference by other workers. There was no warning notice informing others that electrical work was in progress. There was no defined work schedule and clear instructions to co-ordinate the work activities of the subcontractors of different trades carrying out work together on the same location. There was no monitoring system to supervise the workers and regulate their performance such that unsafe conditions could be effectively detected and rectified in a timely manner. The workers apparently had poor safety awareness and limited safety knowledge.

Lessons to Learn

The principal contractor responsible for the site and/or the subcontractor responsible for the electrical work should ensure that:

1. Electrical work is carried out by registered electricians under the supervision of a competent person who possesses the safety knowledge and awareness that enables the adoption of suitable safety precautions to prevent accidents.
2. In carrying out electrical work, all live parts of the electrical system are rendered dead by isolating the electricity supply at the distribution panel. The panel enclosure or the switchgear is capable of locking out. Appropriate warning signs and notices are posted to keep others well informed that electrical work is in progress.
3. Suitable insulated protective equipment are provided for the use of workers engaged in electrical work. Steps are taken, by supervision or otherwise, to ensure workers make full and proper use of the provided protective equipment.
4. A safety management system is devised and implemented. The system should include the following –
   (a) a programme of evaluation of job related hazards is implemented. Safety procedures to prevent accidents is developed in line with the findings of the risk assessment. Particular attention is paid to the co-ordination of the multiple activities performed simultaneously on site by different subcontractors;
   (b) the safety training needs of all workmen and supervisors (including those employed by the subcontractors) are identified. They are adequately trained for the safe carrying out of the work; and
   (c) workers are provided with adequate information and clear instructions in respect of the work to be carried out. A monitoring system is in place to ensure their performance are properly supervised and regulated.

Case 3

The proprietor and a female worker of a food company seriously burnt in an explosion that occurred when a metal drum was being arc welded

Scenario

The deceased was the sole proprietor of a food company which was engaged in the wholesale of rice. The accident took place in a temporary warehouse structure constructed of sheet metal. It was about 70 square metres in area and was used solely for storing rice. Except the electric arc welding set involved in the accident, no other mechanical or electrical equipment was found inside the warehouse.

At the time of the accident, the deceased was welding a metal handle onto the top rim of an empty metal drum using an electric arc welding equipment. A female worker was standing nearby to assist him. The metal drum in question was a 200-litre vessel previously used to hold gasoline or diesel. Before the welding took place, the metal drum was emptied by pumping out all the liquid. The deceased intended to modify the metal drum for other use. During welding, an explosion suddenly occurred and resulted in a small fire. The deceased, who was working close to the source of the explosion, suffered 90% burns. The female worker suffered 60% burns. The deceased passed away in hospital 9 days later.

Case Analysis

- The welding leads, electrode holder and clamp of the arc welding set were all melted by the fire during the incident.
- It was not possible to ascertain whether the deceased possessed any relevant experience, knowledge or training in the arc welding work he performed. The female worker had no knowledge of arc welding at all.
- The metal drum involved in the accident had previously been used to contain highly flammable gasoline or diesel. Although the liquid had been pumped out and the drum was empty at the time of the accident, there were still traces of residual flammable liquid left in it.
- Intense heat was generated when the arc welding work was performed on the metal drum. The heat vaporised the flammable liquid residue in the drum, forming a flammable and explosive atmosphere. Once the flammable vapour came into contact with an ignition source, such as the sparks formed during the welding process, an explosion occurred causing a fire.

Lessons to Learn

The properietor of the food company should ensure that:

1. Before doing any arc welding operation, a risk assessment is carried out to identify all the hazards involved and implement appropriate safety precautions.
2. Any metal drum that has been used to hold flammable substances is thoroughly cleansed before carrying out any work likely to generate heat on it.
3. Any individual carrying out arc welding work possesses the relevant information, experience and training required to enable him to perform the work in a safe manner.

CASE
4

Case 4

A welder electrocuted when welding

Scenario

Two welders were assigned on a rainy day to weld two I-beams together into a tubular structure at an open space and then to fix "X" shape bracings inside the structure with an electric arc welding transformer. One of the welders, the deceased, was electrocuted when he got into one end of the tubular structure to weld the "X" shape bracing.

Case Analysis

- There was no shelter for the welding work. The workplace and the welders' bodies were wet because of the intermittent showers. But no one stopped the two welders from working further.
- The combined I-beam structure was placed on the ground. The cross section of the internal void space was 427mm x 580mm. To weld the "X" shape bracings, the welders had to squeeze into this congested space.
- The welders did not have any insulated welding gloves, footwear, stands, mats or other suitable device to prevent them from having direct contact with the workpiece and the electrode. The deceased, working close to the live welding electrode and the workpiece, was vulnerable to an electric shock.
- There was no clear and specific instruction for the proper procedures of fixing the "X" shape bracings.
- The supervisors and the workers had poor safety awareness and limited safety knowledge.
- There was not in place any monitoring system to detect unsafe conditions and enable these to be rectifed in a timely manner. The workers were not suitably supervised and their performance safely regulated.

Lessons to Learn

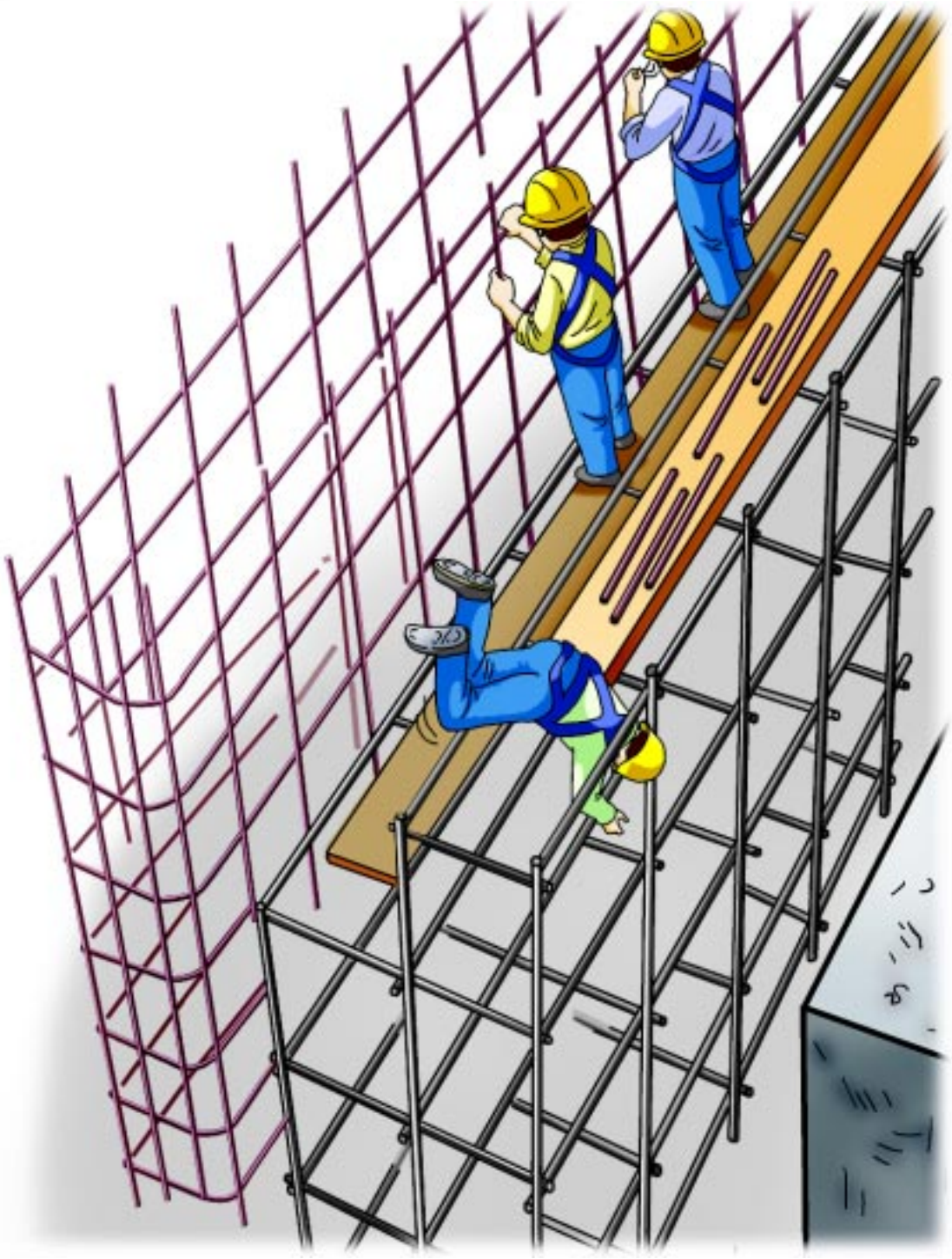
The principal contractor responsible for the site and/or the subcontractor responsible for the arc welding work should ensure that:

1. No welding work is carried out in a wet environment or at an open space when it is raining.
2. All live conductors, including those forming part of the apparatus, are effectively protected and insulated, or placed and safeguarded to prevent electrical hazard.
3. Suitable measures are taken to avoid contact with electrically conductive parts in the vicinity of the welding area, especially when the welding work is carried out at a congested space.
4. Suitable personal protective equipment are provided to the welders to prevent them from having direct contact with the workpiece.
5. An automatic voltage regulator is fixed in the welding transformer to reduce the open-circuit no-load voltage of the transformer output to less than 50V a.c.
6. A safe system of work is provided and maintained. The following safety precautions are taken to safeguard the welders working inside a metal structure with electrical equipment –
   (a) implementing a job hazards evaluation programme to develop safety procedures to prevent accidents;
   (b) identifying training needs to ensure that supervisors and workers are adequately trained and competent to carry out the work safely;
   (c) providing adequate safety information and clear instructions to the workers; and
   (d) having in place an effective monitoring system to ensure that the workers observe the safety procedures devised.

CASE
5

Case 5

A bar-fixing worker fell to death from a substandard working platform



Scenario

On Level 5 of the building under construction, a tubular scaffold was erected to facilitate the fixing of a row of steel bars, 4 m high, 10.8 m long and 30 cm thick, for constructing the upper section of a wall. The scaffold consisted of 2 levels, a front lower level and a back upper level. The lower level of the scaffold, in five tiers, was facing the wall and was 5.3 m high, 10.8 m long and 1.9 m wide. The upper level of the scaffold, in six tiers, was further away from the wall right behind the lower level and was 6 m high. A working platform was erected on the top of the lower level of the scaffold to support the deceased and the three co-workers to fix the steel bars. Wooden boards and timber battens were also placed on top of the upper level of the scaffold where steel bars, timber material and tools were placed for use by the workers. To perform their duties, the deceased and his co-workers had to move about on the working platform and fetch material and tools from the upper level of the scaffold. At the time of the accident, while the deceased was taking a steel bar from the upper level of the scaffold, he lost his balance and fell 6 m to the ground through an opening on the working platform of the upper level. He sustained serious injuries and subsequently passed away in the hospital.

Case Analysis

- The working platform on which the deceased and his co-workers worked was not closely boarded. There was a line of void of 20 cm to 40 cm wide between the rear edge of the working platform and the adjoining higher section of the scaffold. Neither toe-board nor guard-rail was erected on the working platform.
- The upper level of the scaffold was also not fully covered. There were two large openings on the working platform right behind the position where the deceased was working before the accident occurred. Each opening was 137cm long and 144 cm wide. The steel bars were stored close to these openings.
- The deceased and his co-workers had all worn a safety belt. However, there was no suitable anchorage or independent lifeline on the scaffold for them to anchor their safety belts. Furthermore, no safety net was erected underneath the working platform on the tubular scaffold.
- The working platform on the lower level of the scaffold was erected by the deceased and his co-workers. After erection, the site supervisory staff had not checked the working platform to see whether it was safe to use.
- No specific instruction, information and training were given to the bar-fixing workers that they needed to erect a closely boarded working platform with suitable guard-rails and toe-boards.
- The upper level of the scaffold was only 65 cm higher than the lower level. The top ledger of the scaffold on the upper level was therefore not a suitable guard-rail for the working platform erected on the lower level of the scaffold.

Lessons to Learn

The principal contractor responsible for the site and/or the subcontractor responsible for the bar-fixing work should ensure that:

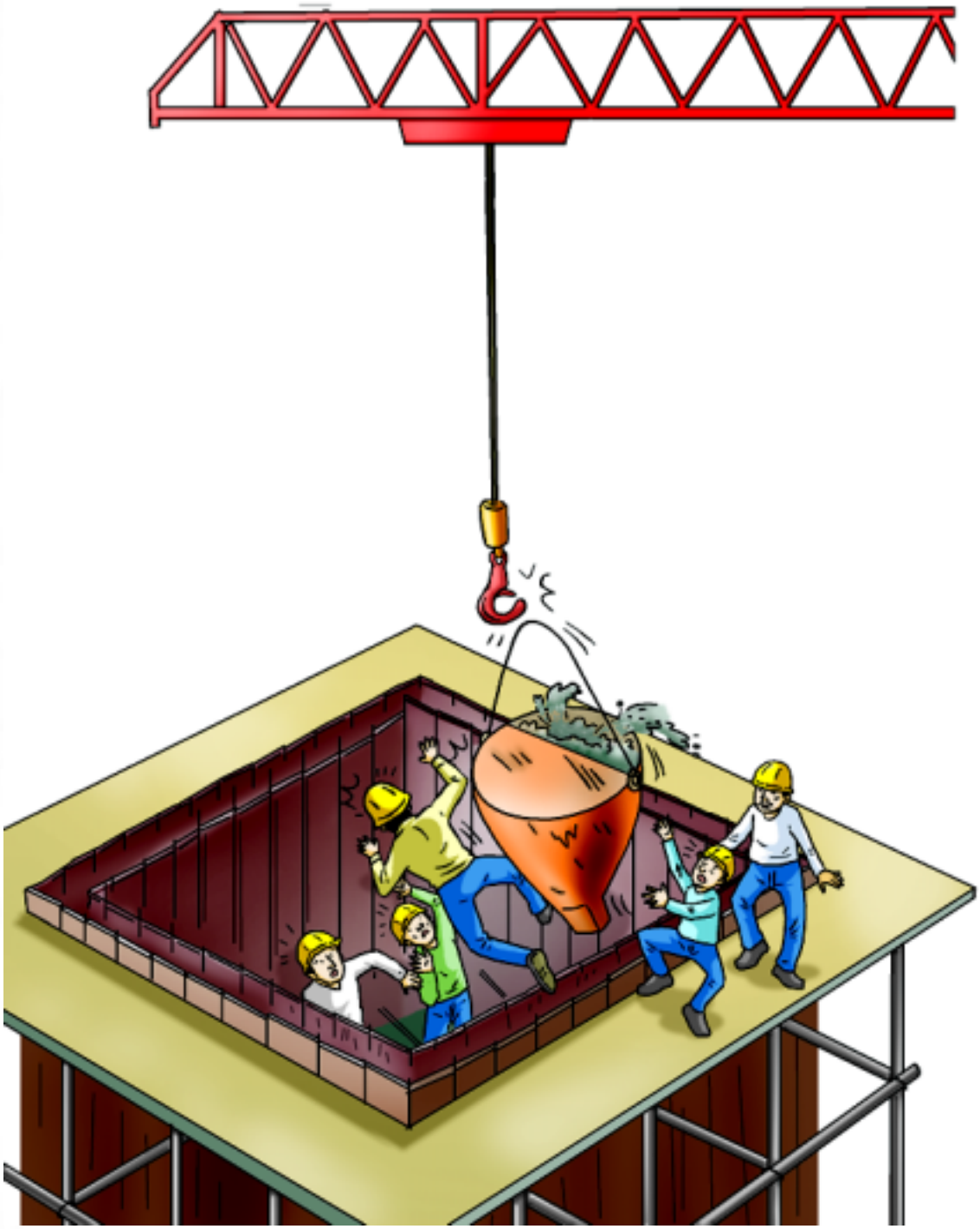
1. Working platforms of proper and safe construction are provided to prevent workers from falling from a height.
2. The working platform is closely boarded and fitted with suitable guard-rails and toe-boards.
3. Any openings on the working platform, through which a person is at risk of falling, are securely covered.
4. A safe system of work for the bar-fixing work is provided. The safe system has included the following elements –
   (a) safe working procedures regarding the erection, inspection and use of the working platform;
   (b) a competent person appointed to inspect the working platform before use;
   (c) all relevant supervisors and workers adequately trained in the safe procedures and subject to regular surveillance; and
   (d) the provision of adequate information, training and instruction in respect of the system of work to the workers.

CASE

6

Case 6

One worker killed and three injured by a falling concrete skip



Scenario

A water tank was under construction on the ground level of a building construction site. When erection of the formwork had been completed, three workers were assigned to carry out the concrete pouring work. A tower crane was used to convey concrete, by means of a skip, to the workers staying on a working platform provided on the formwork about 3.3 metres above the ground. While concrete pouring was in progress, another two workers were also performing levelling work at the bottom of the water tank.

When the accident happened, the skip loaded with concrete was conveyed by the tower crane to the workers on the platform. While a worker was attempting to release concrete from the skip, the skip suspended by a wire sling suddenly detached from the crane hook and fell onto the platform, causing the working platform to collapse. The three concrete pouring workers fell into the tank and were injured. The half-loaded concrete skip further fell to the bottom of the tank and struck a levelling worker to his death.

Case Analysis

- The tower crane, wire sling and the skip had been tested, examined and inspected, and were certified safe to be used. No mechanical defect was noted on the lifting gears and they were not overloaded.
- The tower crane operator in the driving cabin could clearly see the whole water tank formwork structure.
- Since some reinforcement bars of the formwork were found buckled and some of the wooden battens supporting the formwork were broken, it was likely that there had been a strong impact of the skip against the formwork.
- The hook of the tower crane was fitted with a safety catch but it was found deformed and bent to one side.
- The detachment of the wire sling from the crane hook was probably caused by the concrete skip having struck against the reinforcement bars of the formwork. When the movement of the skip was abruptly stopped by the impact, the sling was forced out of the hook. The forceful departure of the sling might have caused the deformation of the safety catch. It was also possible that the safety catch had already been damaged during the operation before the accident.
- It was not necessary to undertake both the water tank concrete pouring and levelling work at the same time. The levelling work could be carried out after concrete pouring had been completed.

Lessons to Learn

The principal contractor responsible for the site and/or the subcontractor responsible for the lifting operation and/or the subcontractor responsible for the concreting work should ensure that:

1. No workers stay at the bottom of the water tank when lifting operation is carried out overhead.
2. The concrete skip is kept clear from other objects while it is being lifted and conveyed.
3. Use other concrete conveying equipment, such as a concrete pump, to eliminate the hazards associated with the lifting operation.
4. Adequate information, instruction and training related to the hazards and safety precautions of the lifting operations are provided to workers.

CASE

7

Case 7

A worker fatally injured when the brick wall he was demolishing collapsed

Scenario

Three free-standing brick walls for displaying mock-up wall tiles were erected in the open area outside the site office of a building construction site. A subcontractor was awarded the contract to demolish these three walls. The deceased was employed to carry out the demolition work. Before the work commenced on the day of the accident, the principal contractor's site agent told the deceased to erect a tubular scaffold to use as a working platform and to demolish the walls from top down using an electric hammer. After that, the deceased was left alone to demolish the walls. Just before the accident occurred, a worker employed by another subcontractor happened to walk past the scene. He saw the deceased undermining the foot of one of the walls with an electric concrete breaker. A few seconds later, he heard a loud 'bang'. He turned around and found the brick wall collapsed and the deceased trapped by two large shattered pieces of the wall. The deceased was sent to hospital for treatment but passed away on the same day.

Case Analysis

- The brick wall involved in the accident was built by laying bricks layer by layer with plaster, without reinforcement bars inside. There were two flanges at the two ends of the wall and the wall was in the form of a 'U' shape. Wall tiles were laid on the plaster surface on the outer side of the 'U'.
- The brick wall measured 3 m high, 3 m wide and 200 mm thick. The two flanges at the two ends measured 550 mm wide each.
- The brick walls sat on a cement base ground that was even and firm. After the accident, no sign of ground subsidence was noted at the location of the collapsed wall.
- No tiebacks or guides such as rope was provided to stabilise the wall during the demolition. No tubular scaffold or working platform was found in the vicinity of the collapsed wall.
- Hammer marks were observed on the bottom edge of a large piece of shattered brick wall. These marks were approximately 200 mm to 400 mm above the ground.
- From the two large shattered pieces of the collapsed wall, it could be seen that approximately 2 m of the foot of the brick wall had been hammered off. This indicated that prior to the collapse, the deceased had hammered off about two-thirds of the length of the foot of the wall.
- The collapse was caused by the excess removal of the foot of the brick wall. When over half of the width of the foot was removed, the wall could no longer stand by itself and consequently collapsed.
- The deceased was not competent to erect a tubular scaffold. He was left to work alone. There were no supervisory measures in place to ensure that the instructions given to him were properly followed.
- The deceased did not wear suitable eye protectors while performing the demolition work.

Lessons to Learn

The principal contractor responsible for the site and/or the subcontractor responsible for the brick wall demolition work should ensure that:

1. Demolition of walls is carried out in accordance with the "Code of Practice for Demolition of Buildings (2004)", which includes the following –
   (a) brick removal begins from the top layer downwards; and
   (b) the work is carried out layer by layer with each layer not larger than 300 mm.
2. Suitable working platforms with guard-rails and toe-boards are provided for workers engaged in brick wall demolition. Erection of the working platform is done under the supervision of a competent person.
3. Adequate supervision is exercised to ensure the safety and health of workers at work.
4. Reasonable steps are taken to ensure that workers engaged in brick wall demolition make full and proper use of suitable eye protectors.

CASE

8

Case 8

A truck driver pinned under an overturned battery-operated pallet stacker

Scenario

Bales and rolls of fabric were transported from a warehouse to a truck in the loading bay of an industrial building. The deceased was responsible for driving the truck to the loading bay of the warehouse. The other two workers, worker A and worker B, were responsible for moving the fabric from the warehouse to the loading bay and stowing it into the truck with a battery-operated stacker. During the operation, the tailgate platform of the truck was lowered and the stacker was positioned on it. Bales of fabric were raised to the necessary height by the stacker and then stowed manually into the storage compartment of the truck. Before the accident occurred, worker A had left the scene to fetch some documents from the office, leaving worker B to handle the rolls of fabric alone. The deceased was by then standing at the loading bay at the rear end of the truck. Before the accident occurred, worker B was using the stacker to lift a roll of fabric to a height of about 160 cm. Not having disengaged the starter key of the stacker, he proceeded to stow the fabric manually into the truck. Suddenly, he heard a loud crash and found the stacker toppled. The deceased was pinned underneath the stacker. He died in hospital later that evening.

Case Analysis

- The tailgate of the truck was operated by a hydraulic system powered by the battery of the truck. It could still work even with the engine switched off. Its up and down operation was initiated by two separate control devices. One of these was located below the deck at the right rear end of the truck. The other was a remote device which could be controlled from within or outside the truck. The tailgate was in good working order at the time of the accident. Nothing abnormal was noted.
- The starter key of the stacker must be inserted before the stacker could be operated. Steering was done by a control lever which turned it left or right. Its driving mode was operated by a travelling switch that was also on the handle of the control lever. The stacker was in good working order before the accident occurred.
- Simulation tests performed on the stacker revealed a low centre of gravity remaining inside the machine body even when the lifting forks were raised. Under normal circumstances, the stacker would not topple.
- At the time of the accident, the lowered tailgate platform of the truck was not at ground level. It was reported to be approximately 5 to 7.5 cm above ground.
- Three fresh collision markings were found on the concrete surface of the loading bay. It is believed that one of the marks was caused by the deformed edge of the tailgate platform when it was lowered onto the loading bay. The other two were possibly caused by the impact of the folding platform hinging on the ground.
- At the time of the accident, the starter key had not been removed from the stacker. This meant that it could easily have been operated or caused to move by anyone other than its operator.
- With the starter key on, it is believed that the deceased, for some unknown reasons, might have operated the stacker or caused it to move away from the tailgate platform. Since the tailgate was a few centimetres above ground level, once the stacker slid off, it toppled. The folding hinge at its base hit the ground first, followed by the crashing of the whole stacker.

Lessons to Learn

The employer of the two workers and the truck driver should ensure that:

1. A safe system of work for operating the electric stacker is provided and maintained for all operators. This includes (but not be limited to) the following –

   (a) the electric stacker is operated only by a person who has attended the relevant training courses and holds a valid certificate;

   (b) there is supervision at all times to ensure that the stacker is operated only by the above authorised person;

   (c) the operator has not left the stacker unattended unless he has ensured that –

      (i) the hand brake is applied;

      (ii) the starter key is removed to prevent any unauthorised person from operating the stacker; and

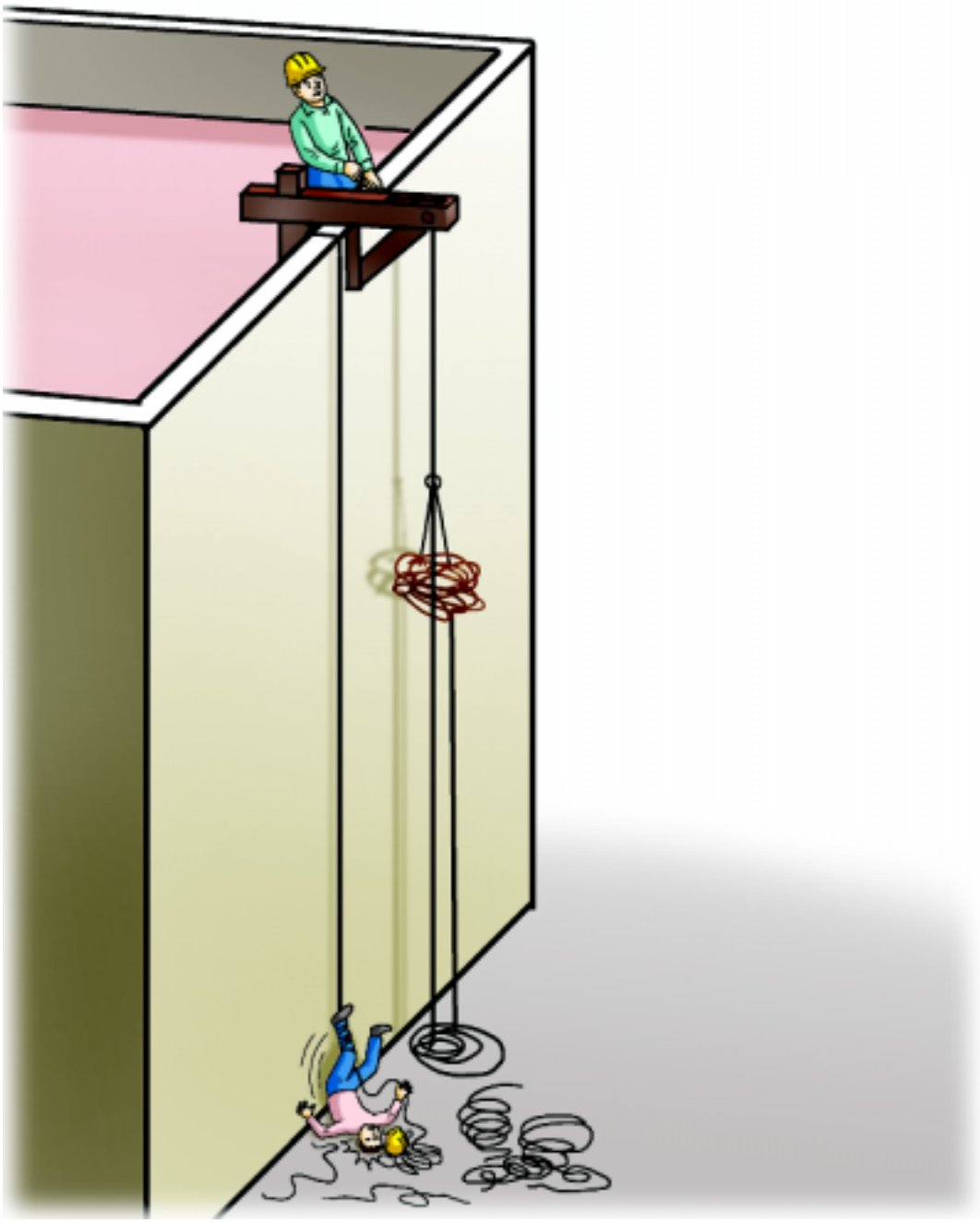
      (iii) should it be parked on a slope, the stacker is securely wedged in by stop blocks.

2. Before operating the stacker, the tailgate platform of the truck is lowered until it rests squarely on ground level.

CASE
9

Case 9

A worker entangled and dragged up by a nylon rope while engaging in the dismantlement of a gondola



Scenario

At a construction site, 4 blocks of multi-storeyed service apartment building were built. After the construction work was substantially completed, gondolas were erected on the roofs to clean the windows before handing over to the clients.

Before accident occurred, the window cleaning work at one of the 4 blocks of building was completed. The gondola erected on the roof was dismantled and lowered to the ground floor. It was separated from its accessories of 4 wire ropes, two nylon ropes and an electric cable and moved a distance away from the building. Two wire ropes of the gondola were also lowered to the ground floor. At the time of the accident, three workers, worker A, worker B and the deceased were engaged in the lowering of the remaining gondola accessories of two wire ropes and an electric cable.

The lowering method was merely manual operation without the assistance of power driven aids. The two wire ropes and electric cable were connected by shackles to a nylon rope (previously used as independent lifeline during the window cleaning operation on the gondola). The nylon rope was then passed through the guiding groove of a outrigger. One end of the nylon rope connecting the wire ropes and electric cable was lowered down to the ground floor by gravity. The other end of the nylon rope was laid freely on the ground floor and it was dragged up and to be collected at the roof. Worker A stayed on the roof to hold the nylon rope and lower the remaining gondola accessories down to the ground floor. The deceased and worker B worked on the ground floor to collect the wire ropes and electric cable. It was agreed that the deceased would give signal to worker A before worker A started to lower the gondola accessories down to the ground floor. As worker A sensed the deceased having given him the signal, he started to lower the gondola accessories down. At this moment, the left foot of the deceased was entangled by the free end of the nylon rope that was laid on the floor. His head struck hard onto the ground when he was being dragged up and the gondola accessories were being lowered down. He sustained serious head injury and passed away in the hospital a few hours later.

Case Analysis

- The vertical distance between the outrigger on the roof and the ground floor was 211 metres.
- The total weight of the two wire ropes and an electric cable was 135 kg.
- During the lowering operation, one end of the nylon rope was used to tie the gondola accessories. The rope with the gondola accessories was then passed through the guiding groove and tied around the framework of the outrigger while the other end of the rope would lay freely on the ground floor level. The worker who stayed on the roof would hold the nylon rope by hand and control the down movement speed of the gondola accessories. The harder the worker pulled the nylon rope, the slower the load would descend and vice versa.
- At the beginning of the lowering operation, the worker on the roof had to bear the entire weight of the load. Such a weight of 135kg would be too much for a normal person. He was unlikely able to hold and control the down movement of the load. The gondola accessories were actually lowering down by their own weights in an uncontrolled speed.
- The working condition on the ground floor was in a mess. Nylon ropes and wire ropes were scattered around and this would endanger the safety of workers working nearby, including the deceased. When the gondola accessories were moving down by their own weights in an uncontrolled speed, the force was so great that the scattered ropes on the floor entangled the deceased's foot and dragged him up very rapidly.
- No mechanical equipment was available to assist the lowering of the gondola accessories. There was also no communication system to ensure that proper and clear instruction was given to the workers responsible for the lowering operation.
- There was no safe system of work on the dismantlement of gondola. Neither was there any risk assessment before commencement of the work.
- The workers involved in the operation were not given adequate training, instruction and information on the proper procedures of dismantling a gondola.

Lessons to Learn

The principal contractor responsible for the site and the subcontractor responsible for the dismantlement of the gondolas should ensure that:

1. A safe system of work on the dismantlement of a gondola is developed and implemented before commencement of the work. The system includes (but not be limited to) the following –

   (a) risk assessment is conducted and safe work procedures are developed;

   (b) the work is supervised by a competent person who possesses adequate knowledge, substantial experience and appropriate training;

   (c) a suitable communication system is provided to both workers working on the ground floor and roof to ensure that clear instruction is properly conveyed and received; and

   (d) workers engaged in the work are adequately trained. Sufficient information and clear instruction on the work procedures are also given.

2. Suitable mechanical equipment are provided for lowering the gondola accessories to ensure that the speed is under control.

3. Good housekeeping on the ground floor is maintained. Cable reels or other suitable devices are used for proper handling of cables and drums or reels are used for winding of detached ropes to eliminate the risk of trip and trap to the operators. As far as practicable, the area where there are risks of falling object or entanglement of worker are fenced off.

Enquiries

If you wish to obtain further information about this publication or require advice on occupational safety and health, please contact the Occupational Safety and Health Branch of the Labour Department through:

Telephone : 2559 2297 (auto-recording after office hours)

Fax : 2915 1410

E-mail : enquiry@labour.gov.hk

Information on the services offered by the Labour Department and on major labour legislation can also be found by visiting our Homepage at http://www.labour.gov.hk.

You can also obtain information on the various services provided by the Occupational Safety and Health Council through its telephone hotline at 2739 9000.

Complaints

If you have any complaint about unsafe workplaces and practices, please call the Labour Department's occupational safety and health complaint hotline at 2542 2172. All complaints will be treated in the strictest confidence.

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