

Next let's invite the Senior Maintenance Surveyor/Statutory Compliance of the Housing Department Mr. WONG, Sai Yau, Gordon to give us a talk on "Risk Assessment with Learning from Safety Incidents, Routine Maintenance and Operation"
Mr. Wong please.

Distinguished guests and colleagues, good afternoon,
In this session, we will talk about
"Risk Assessment.
with Learning from Safety Incidents, Routine Maintenance and Operation".
In fact, concerning property management and building maintenance,
we encounter some high-risk activities
such as working at height and working in confined spaces, etc.
If we do not take sufficient safety measures,
death and serious injuries may happen.
In avoidance of those accidents,
we should carry out a comprehensive risk assessment in advance
and formulate certain appropriate preventive measures.
Most importantly we should implement those measures practically when working.
Today, I have three incidents to share with you all.
The first incident involves working at height.
For repair and maintenance of housing estates, at most of the time,
some truss-out scaffolds are erected on the exterior wall.
In this incident, a worker had to climb to the exterior wall from indoors
to erect a truss-out scaffold.
He had all the tools with him.
However, when he fixed the angle bracket,
he found that the last screw of the angle bracket was located rather afar,
so he did not fix that screw.
As ~~on~~ the other side of the wall did not provide enough space,
he then fixed the angle bracket horizontally
and continued to erect the scaffold and examine the scaffold,

When he stepped onto the scaffold, the scaffold could not withstand his weight, and fell.

Luckily he wore safety harness and that saved his life.

We can reflect from this incident.

Did contractors assess risks properly during the construction planning stage?

Say identifying hazards? Knowing who will be the affected persons?

Upon conducting risk assessment, did they select suitable and less risky methods?

The best way is to eliminate or substitute hazards.

If that is not feasible, we may consider engineering control measures.

I will illustrate with an example later.

If that is again not feasible, we may consider administrative measures, say through Permit-to-Work system and ~~or~~ so on.

The last resort will be personal protective equipment.

This is an example of using engineering control methods to reduce exposure to risks.

Regarding the circumstances just mentioned, if there is not enough space on the exterior wall and I-bracket cannot be used, then T-bracket should be considered.

Under ~~that~~ such circumstances, if there was a competent person to confirm the steel bracket used had sufficient loading capacity, the accidents would not have occurred.

Was such procedure followed?

Was the work executed in compliance with the Code of Practice of the Labour Department?

Besides, on the construction methods, several speakers have mentioned that in the last session.

In fact, do the construction methods suit the environment on site?

For example, do the competent persons confirm that the base on site has sufficient loading capacity?

Is there enough space to fix the steel bracket?

Are there any objects, say pipes or other fittings obstructing the erection of scaffolds?

In addition, is there enough safety access for workers to access the scaffold?

For instance, like this situation, the scaffold was erected at a relatively low position.

Dangers would occur if the worker climbed out and jumped down.

Fixing steel bracket in the course of erecting scaffolds is dangerous.

Are there any fall arrestors provided to workers?

Say some fixed anchorage points, or eyebolts
or fixed onto building structure?

The last question is whether there is any arrangement on reviewing the risk
assessment?

Are there any differences between the arrangement of risk assessment and the
actual environment?

Do the workers use appropriate equipment?

Just like in the previous case, T-bracket should be used
but he used the I-bracket. Thus the steel bracket could not be fixed.

Finally it is a matter of construction workers themselves. Do they really understand
the construction methods and the safety requirements?

The second incident is about cleaning fire services water tank,
which involves working in confined space environment.

In this incident, three workers had to clean the fire services water tank.

Many tools were needed to be lifted to the rooftop. The picture shows the lifting of
tools, such as some wall brushes, some high pressure water-jets
and some mechanical fans.

There were a lot of tools needed to be transported.

Fences were erected in the lifting zone to ensure safety.

A worker felt stifled when cleaning the water tank.

Although there were mechanical fans, that worker still felt uncomfortable.

It turned out he found he should get out of the water tank.

We reflect on this situation- before the contractor arranges to clean fire services
water tank, was there any competent person appointed to conduct risk assessment
of working in confined space?

Just now I mentioned many tools were needed to be transported,

Prior to transporting them from one place to another, workers should have brought

some ropes or some lifting tools to the rooftop.

Climbing up to the rooftop is a high-risk activity, because it involves climbing a certain height and the use of vertical ladder. Do workers maintain the three-point contact when climbing the vertical ladder? Are other dangers considered? Like the situation mentioned, workers found the environment stuffy the increase in body temperature exposed them to risks, such as lack of oxygen, loss of consciousness. Is there any risk of rising water liquid level which may leading to drowning?

On a muggy day, does one consider providing workers with cooling vests? In the confined space, we should introduce working permits and check if the worker holds a valid Certificate of Certified Worker. Just like in the case mentioned, the worker was not feeling well and had to get out of the water tank. Yet if the worker went into a coma at the bottom of the water tank, how could we save him? In that case we could not find equipment like the tripod. In fact we should ponder-if there should be emergency plans, like having first-aid boxes and tripods and so on. It is hard to save a worker in a coma from the tank without tripods. The third incident involves working at height. That is cleaning the top of a canopy of about 4 metres high. A worker was assigned to clean the top of a canopy. He climbed up and down using a ladder. When he climbed to the top of the canopy, he was almost in danger without attaching the safety harness to the fall arresting device even though he wore the safety harness. Luckily he was fine when working on the top of the canopy. Only when he went down did the accident happen. He slipped over, hit his head and

went into a coma.

We should reflect if risk assessment should be carried out for cleaning the top of the canopy. Is there a risk of person falling from height?

Did someone consider using other facilities to go up and down the canopy?

Apart from using ladder to go up and down from the ground,

were there any other access from the building interior to reach the canopy?

Would that be safer?

Moreover, were the workers well-trained?

Were the workers aware of the danger? Did the worker know how to use the fall arresting device? Did he know the continuity of the fall arresting system, when he went from a high level to a low level?

All these were important.

Indeed cleaning work at height should be monitored by supervisors under the provisions of the contract.

Did they follow accordingly?

Finally, I would like to make a brief conclusion.

Risk assessment means assessment of a piece of work in a systematic manner.

After identifying the hazards, we should formulate the proper implementation procedures and construction methods.

The objective is to eliminate or reduce exposure to risks.

Lastly, I wish each and every industry player and colleague to work together, conduct risk assessment properly to realise a safe and good working environment. Thank you.