Site Safety Seminar For Capital Works New Works Contracts

XXI World Congress on Safety and Health at Work 2017 in Singapore from 3 to 6 Sep 2017



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12 - 4 - 2018





XXI World Congress on Safety and Health at Work 2017 in Singapore

3 - 6 September 2017





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3 Sep 2017	Opening Ceremony – opening addresses by a) President of XXI Congress [Commissioner for Workplace Safety and Health, Ministry of Manpower (人力部), Singapore] b) Director General, International Organisation of Labour (國際第工組織), Switzerland c) President, International Social Security Association (國際社會保障協會), Switzerland d) Prime Minister of Singapore
4 Sep	a) Reports by ILO and ISSA
2017	b) Keynotes : Vision Zero and Healthy Work c) Technical Sessions
	d) Symposium : innovative approaches to OSH
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5 Sep 2017	 a) Keynote: People-oriented prevention by WSH Council of Singapore b) Technical sessions c) Safe Youth @ Work Dialogue d) Symposium: innovative approaches to OSH
6 Sep 2017	 a) Symposium : Vision Zero in the construction sector by ISSA Construction Section b) Closing address by Minister of Manpower, Singapore c) Technical Tour to 3M









Culture of Prevention for Safety, Health & Wellbeing

- According to ILO, an estimate of 2.3M workers die, 160M people suffer from nonfatal occupational diseases, and 303M people suffer from occupational accidents with non-fatal consequence every year
- A world-wide prevention campaign launched by International Social Security Association (ISSA) at the World Congress in Singapore in 2017
- Raises awareness for risks at work
- Motif "Vision Zero a world without fatal and severe occupational accidents, occupational diseases and road accidents is possible"
- 4 important principles
 - a) human life is not negotiable
 - b) every occupational accident and occupational disease is avoidable
 - c) prevention is the instrument for entrepreneurial success
 - d) vision zero is the key to development of global culture of prevention at workplace



WSH 2018 in Singapore

Engendering a Progressive and Pervasive WSH Culture

- Introduced in 2008 to encourage stakeholders to view WSH as a personal responsibility and proactively reduce risks
- Extension of WSH Act to all workplaces in 2011
- Established the WSH Institute in 2011 to provide research to address WSH industry challenges
- Bringing a culture change to sustain improvement in workplace safety and health
 where management and workers embrace the belief that all injuries are
 preventable. Launched the CultureSAFE programme in 2012 with a WSH Culture
 Fund to help companies implement the CultureSAFE programme at workplace
- Launched Vision Zero movement at the National WSH Campaign 2015 to drive the mindset that all workplace injuries and ill-health are preventable. Introduced 6-step approach to help companies to achieve Vision Zero
 - a) Make a *commitment*
 - b) Set a *goal*
 - c) *Communicate* the goal
 - d) *Identify* WSH challenges
 - e) Find *solutions*
 - f) *Review and monitor* progress

Analysis of Current Situation of Singapore

Deteriorating Situation in Construction Sector

Systemic Lapses for fatalities:

- a) 93% for unsafe behaviour, lack of competency and safety awareness of workers,
- b) 87% for inadequate risk management, insufficient risk control measures
- c) 73% for lapses in planning and execution of work activities, e.g. poor supervision, communication and coordination of work

Experience and Competency :

a) Workers with < 1 year experience and unskillful workers are more prone to fatalities

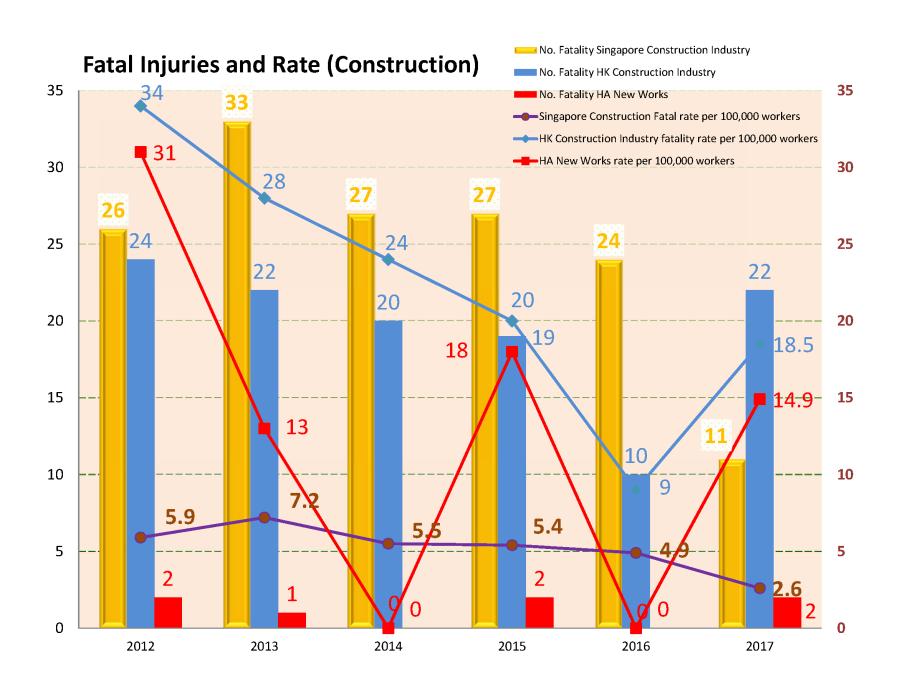
Need for Greater Industry Ownership

- a) Some contractors took WSH contraventions as a normal course and set aside "safety budgets" to cover fines
- b) Some contractors exert pressure on doctors to reduce duration of medical leave
- c) Some accredited training providers are fraudulent in conducting WSH training, eg. Trainees were guaranteed a pass through provision of answers

Health Risks Factors not addressed

- a) No integrated approach in managing safety, health and well-being of workers
- b) WSH professional not competent to advise management how to manage work environment and personal health factors to prevent accidents and ill-health





Advancing Workplace Safety & Health for 2018 and beyond WSH 2018 Plus lays foundation to address WSH challenges and sustain continuous improvement beyond 2018 and 3 key priorities:

- A. Improving WSH Performance in Construction Industry
- B. Strengthening WSH Competency
- C. Building Collective WSH Ownership





Advancing Workplace Safety & Health for 2018 and beyond

A. Improving WSH Performance in Construction Industry

As companies have different capabilities and attitude towards WSH, a differentiated enforcement approach is adopted to instil greater motivation for companies to improve their performance :

- 1) Enact Progressive WSH Legislation:
 - Risk based management approach in enacting WSH legislation,
 - a) Enacting WSH (Design for Safety) Regulations on 1 Aug 2016 greater responsibilities on developers and designers to address foreseeable risks at design and planning phases, driving upstream WSH prevention with benefits seen later
 - b) Reviewing WSH (Construction) Regulations to improve formwork safety and on-site traffic safety for forming Safety and Health Coordination Committee to coordinate all hazardous works on site
- 2) Influence WSH Standards through Procurement Practices:
 - a) Public bodies consider safety records as pre-tender requirement
 - b) Placing greater weight on safety in tender evaluation



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Advancing Workplace Safety & Health for 2018 and beyond

- A. Improving WSH Performance in Construction Industry
 - 3) Adopt a Differentiated Regulatory Approach:

Differentiated approach based on level of capability and attitude of companies to allow for more effective allocation of resources of MOM-

Figure 2: 2x2 Regulatory Profiling Matrix

CAN AND WILL WILL BUT CANNOT Enforcement to be more Role model for the industry. calibrated and engagement To self-regulate and share best practices with other centtric companies OW High Capability Capability Tough enforcement More regular stance to change attitude inspection to change attitude then raise capabilities and maintain standards CANNOT AND WILL NOT Poor Attitude

Good Attitude

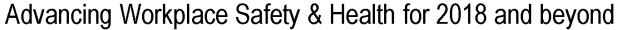




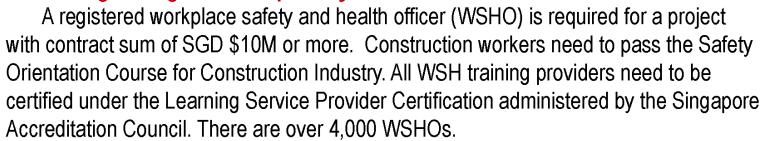
- A. Improving WSH Performance in Construction Industry
 - 4) Leverage on Technology:

Driving WSH improvements and improving productivity through technology:

- a) Adopting prefabricated prefinished volumetric construction (PPVC) reduces WSH risks on site
- b) Installation of data loggers in all mobile cranes allows crane owners and occupiers to monitor performance of crane operations, facilitates better planning of lifting operations and shape the behaviour of crane operators
- c) Using facial recognition and access control to ensure authorized entry into designated work areas
- d) Organising a WSH Technology Symposium to expose the industry to technologies for improving safety and health at workplaces and support greater adoption through co-funding



B. Strengthening WSH Competency



- 1) Raise Recognition of WSHO with Career Progression Pathway:
 Singapore Institution of Safety Officers is working with universities to develop training courses to help WSHOs develop themselves professionally
- 2) Enhance Training Delivery for a Richer Learning Experience:
 Include interactive and experiential training modules; uploading training material onto smart phones for ease of learning; virtual simulator for training
- 3) Introducing Competency-based & Outcome-oriented Training Curriculum: Training for workers on carrying out Last Minute Risk Assessment; training of supervisors of contractors on communication & relationship management
- 4) Enhance Quality of Training Providers and Trainers:

 Trainers for WSH courses to undergo at least 10 training hours each year under the "Train the Trainers" programme

Advancing Workplace Safety & Health for 2018 and beyond

- C. Building Collective WSH Ownership require shifts in mindset:
 - 1) From reducing workplace fatalities to preventing all injuries and ill-health: Workplace injuries and ill-health are preventable; championing the Zero movement through awards, recognition; imbuing WSH values from young by integrating WSH knowledge into students' learning and school activities
 - 2) From injury compensation to injury prevention and management: Forming Work Group comprising insurers, employers and unions to review work injury compensation (WIC) insurance policy to provide differentiation in premium based on workplace safety performance to influence the right behaviour in companies; including Return to Work expenses in WIC insurance for compensation to help injured workers to return to work
 - 3) From focusing only on safety to equal emphasis on safety and health:
 Raise awareness on Total WSH through platforms e.g. WSH campaign,
 conference, talks, websites, channels through associations, unions,
 etc. awards; accrediting training providers for Total WSH courses;
 incorporating Total WSH concept into professional training
 - 4) From government-led to industry-driven: broadening and deepening partnership with WSH Council and WSH Institute



Culture of Prevention for Safety, Health & Wellbeing



- Cover all essential aspects of a successful prevention strategy
- Require a plan for development of a sustainable occupational safety and health culture which is supported by measures and milestones, and reviewed regularly
- 1) Take leadership demonstrate commitment Corporate Level
 - a) Housing Department Environment, Health and Safety Committee chaired by Permanent Secretary of Housing responsible for development and formulation of policy direction on environment, health and safety
 - b) Housing Department Site Safety Sub-committee chaired by DD(DC) overseeing site safety and health management for works contracts
 - c) Housing Department Occupational Safety and Health Sub-committee chaired by DD(CS) overseeing departmental OSH policy and implementation
 - d) 4Cs core values express commitment and accountability

Project Level

- a) Partnering Charter
- b) Site Safety Committee by contractor



Culture of Prevention for Safety, Health & Wellbeing

7 Golden Rules (cont'd)

2) Identify hazards – control risk

Corporate Level

- a) List management in admitting capable contractors
- b) tender evaluation in selecting the optimum contractor
- c) requirement of safety and health management to contractor
- d) performance monitoring of contractors through PASS, safety audit, surprise safety inspection, routine site inspection by project staff
- e) design review meeting (e.g. AAP, EAP, PDRC, DDRP, BSDRP) with various stake holders to identify risks at early / design stage

Project Level

- a) BIM to simulate design and construction process
- b) Monthly safety and health site meeting
- c) Safety Plan and Health Care Plan by contractor (Singapore considers mental health in risk assessment)



Culture of Prevention for Safety, Health & Wellbeing

7 Golden Rules (cont'd)

 3) Define targets – goal-oriented, programme-based approach Corporate & Project Level

Targets of zero fatal & accident rate of not more than 9 per 1000 workers are set

 4) Ensure a safe and healthy system – be well-organised Corporate Level

3-pronged approach to eliminate, reduce and control the risk including

- a) procurement strategy and performance monitoring with incentives & sanction;
- b) strengthening contractual requirement and management;
- c) research, training and promotion

Project Level

- a) Implement HASAS, SSIP, PASS, Safe Working Cycle
- 5) Ensure safety and health in machines, equipment and workplace Corporate Level
 - a) Duty of contractor to follow Factories and Industrial Undertakings Ordinance
 - b) Standard safety requirements under contract (e.g. Standard Specification Library)



Culture of Prevention for Safety, Health & Wellbeing

- 7 Golden Rules (cont'd)
 - 5) Ensure safety and health in machines, equipment and workplace (Cont'd) Project Level
 - a) Use quieter machines in sites close to neighborhood
 - b) Rest area for workers as specified under contract (Visited site in Singapore provide water dispensing machines on each floor of domestic blocks)
- 6) Improve qualifications develop competence

Corporate & Project Level

- a) Qualification and training requirement on contractors' personnel
- b) Site Safety PASSPORT Training with Refresher Course for HA works staff
- 7) Invest in people motivate by participation

Corporate & Project Level

Pay for safety to contractor for organising induction training and tool box talks for workers, joining / winning site safety campaigns or organising site-based safety awards, implementing safety innovation, application of RFID or BIM for safety, P&N Caring Programme

http://visionzero.global/sites/default/files/2017-09/2-Vision_Zero_Guide-Web.pdf



4 Sep 2017 – International Media Festival for Prevention

- Special Media Session
 - media can educate people how to behave in correct and safe way
 - 師傅再出馬 (OSH Master Chef II) of OSHC of Hong Kong won the grand award



4 Sep 2017 : Symposium : Innovative approaches to OSH

 Symposium : DD(DC)'s presentation on "Innovations in Safety and Health in Public Housing Developments in Hong Kong"









5 Sep 2017 – Safe Youth @ Work Dialogue

- Young workers are future leaders of economies
- They are 40% more likely than older workers to suffer occupational injuries because
 of lack of skills, experience and training, inadequate supervision, limited knowledge
 of OSH hazards and risks, and lack of understanding of their rights
- Youth can be change agents by bringing their voice to help build a global network of young champions for safety and health in the workplace

 More than 120 youth champions, aged 18-24, from around the world join the Congress and are prepared to become agents of change for SafeYouth@Work in their home countries





3 to 6 Sep 2017 - Exhibitions

- Virtual reality technology for safety training of mobile elevated work platform
- Exoskeleton for manual handling
- Fall arrest system



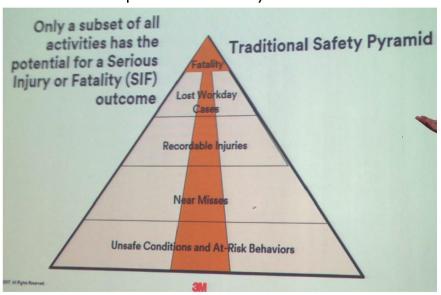






6 Sep 2017 - Closing Ceremony & Technical Tour

- Closing Address by MOM, Singapore
- A sharing by a medical practitioner diagnosed with leukemia on importance of prevention
- Next World Congress in Canada
- Technical Tour to 3M Safety pyramid, safety equipment (e.g. PPE, reflective strip for roadworks)















現在放映的是2018年4月12日 香港房屋委員會 「新工程合約工地安全講座」的片段 台上的講者是 房屋署高級經理(工程安全及健康)劉賜添先生 他的講題是 2017年第21屆新加坡世界工作安全與健康大會

(00:30)

9月3日至6日的時候,那時候副署長馮小姐帶隊 參加在新加坡舉行的第21屆世界工作安全和健康的論壇 稍後,我們另外兩位同事會講述9月7日至8日的技術訪問

簡單講述一下流程,9月3日當天是開幕禮 有幾位重要人士出席 包括新加坡的人力部署長作主禮 包括新加坡的人力部署長作主禮 國際勞工組織,主席亦有出席 另外國際社會保障協會主席 還有新加坡總理李顯龍,出席演講

9月4日,國際勞工組織和國際社會保障協會做一個報告 帶出零願景的訊息 還有一些技術環節 下午有很多座談會,提及創新措施 9月5日,新加坡的工作場所安全與衛生理事會 帶出「以人為本,防患未然的訊息」 接著有一些技術環節 下午有青年論壇 他們很着重由小朋友和年青人開始帶出注意職安健的訊息 亦有創新座談會

9月6日閉幕禮,再由ISSA國際社會保障協會 講出這個零願景,這個論壇的亮點:零事故,零願景 由新加坡人力部作閉幕辭

之後,3M公司安排了一個技術之旅 之後介紹防患未然的文化 國際勞工組織說出,每年大約有230萬人因工死亡 有1億6千萬人忍受危害及疾病 有3億多人因為工作上的意外而受傷 在2017年,在新加坡舉行一個 國際性的預防運動推廣以防患未然為宗旨的一個會議 提高工作的危害意識,希望達到零願景 這個世界對工作上的意外 工作上的疾病、危害做到零願景 四個重點,人命是不可以妥協的 每個意外和疾病都可以避免 避免意外和疾病,防患未然是企業成功的其中一個重要元素 希望全球朝向這個零願景的方向邁進

在新加坡,他們已經推動一個職安健文化 10年前即2008年,已經提到希望2018年達到某一個理想 他們把這個職安健作為一個個人的責任

而主動去消除、減少危害

2011年,他們提出這個工作場所安全與健康法案

已經涵蓋了所有工地

2011年成立職場安全衛生研究所,作出研究

以帶動文化的改變,令到職安健能在工作地點推行

避免所有的意外

2012年,他們帶出這個安全文化的計劃以推動公司

在工作環境、工地去推行這個計劃

2015年他們推行這個零願景的運動,希望改變人的心態

意外、危害、疾病是可以消除的,可以避免的

有六個途徑,希望可以達到零願景

第一,一定要有承擔

第二,你的目標是什麼

第三,將目標說出去,讓人知道

第四,你要面對什麼挑戰

第五,找出一個方法

第六,監察然後再檢討

新加坡在建築範疇方面,他們看到情況是不理想的

他們看到在工人方面有很多人為的失誤

能力的不足,意識的不足

另外,危害的管理,危害的控制,接着再去到規劃和推行

在監管上,溝通上,管理上,協調上

都有不足而導致這些嚴重的死亡事故

另外,看到工人在年資方面

經驗不足的工人都容易受到死亡的威脅

接着再看到在建築工業上

大家對於職安健的承擔有多少呢 是否自己要負責呢? 這個也希望整個業界做多一點 有些公司將意外被罰視為成本之一,已經作好預算 或叫醫生寫少一點病假 甚至有一些提供訓練的服務供應商作弊 提供答案讓工人們上完課之後得到合格的結果 這些問題他們是看到的 再者,職安健和福利,未能結合 即是做不到一個綜合方法

舉一個例子,近年都有人提出 高樓大廈是否需要提供工人升降機呢? 有些不會提供的,工人走到上30樓、40樓 已經喘氣,還有能力工作嗎? 會不會疲累,會不會受傷 這些是可以跟安全結合在一起考慮的 還有工作場所安全及健康的人員 是否有足夠能力去管理環境和個人健康風險呢?

看了這麼多的問題,看一些過往幾年新加坡和香港的比較 黃色的直條是新加坡的致命意外數字 藍色的直條就是香港的致命意外數字 看來香港的情况較好一點, 2016年香港有10宗 不過2017年香港有22宗,新加坡反而2017年只有11單 意外事故率還可能會有些漏報 那麼致命意外事故率,我們用他們的報告,十萬工人來算 紅色的斜線,就是房署的 房署因為人數不是那麼多,所以有上有落 藍色的斜線是香港的 而新加坡那一條在下面,下面是比較低的 這個就是他們的官方報告 新加坡在2017年10萬工人致命意外事故率只有2.6 香港是18.5,房署是14.9 因為房署人數少,多一宗兩宗已經可以升到很高 有兩宗的死亡事故出現 大家可以看到香港有很大的改進空間

新加坡已經正在趕上來 他們在2018年提出一個名叫「WSH 2018 Plus」的計劃 2018年「加」這個計劃,有三個重點 第一,重點提高建築業安全與健康表現 第二,建造業裏面的能力要提高 第三,對於職安健人人有份 現在讓我們就每一點細看,在建造業方面 他們知道法例是重要的 在2016年他們已經推出了設計安全法規 想到可以在源頭上消除和減少很多危害 就在法例那裏推行 稍後我們同事會講解這方面的問題 另外建築法例裡,亦都看看模板工作安全 工地交通安全,需要檢討 第二,他們推動在合約方面,投標方面 公共機構僱主需要考慮承建商的安全紀錄 在投標裡注重安全 第三,對不同的公司有不同的處理方法

右上角的那一個是有些公司做到的 願意做的,請它出來做榜樣、分享 左下角,對不懂得做又不願意做的公司,便要執法 加強檢控 另外對那些懂得做又不做的公司 或很想做但是又不懂做的那些公司,盡量去抽查一下他們 希望他們能改進,亦利用科技 例如他們已經提出預製預裝修廂式建築這種做法 例如他們已經提出預製預裝修廂式建築這種做法 已經進行了好幾年,香港要開始研究採用 預先裝飾立體預製件減少工地的人,人少了 意外的機會真的是少了 另外,他們在所有的移動式起重機安裝了數據庫 儲存了所有數據 可以翻查究竟在做什麼操作,當時發生什麼事 有沒有什麼不正確的做法

第三,去到一些特別的指定區域 他們用面容辨識系統 工地有些高危地方只有特定工人才能進去 剛剛稽核報告也有類似的管制 第四,增加宣傳活動,座談會等,推廣技術知識 提升職安健的能力,他們不是計算人數,他們是計算錢 新加坡幣一千萬就會聘請一個安全主任 他們現在有超過4000個安全主任 他們現在有超過4000個安全主任 他們都知道是要提升安全主任的專業能力 所以他們跟大學有聯辦課程,持續改進、持續進修 另外將一些培訓模塊放進手機,方便學習 亦教導工人做最後1分鐘的風險評估,十分重要

工人自己能夠意識到危險,能自己應變

之後還有培訓訓練員的課程,訓練員要去訓練別人

訓練員自己也要受到訓練

亦要滿足每年最少10小時的持續訓練

對職安健大家都有認同、有歸屬、有責任感

以他們心態上的轉變,以前只是討論死亡

現在應該說減少意外,減少受傷和健康的問題

舉辦多一點獎勵活動,在意識上要認為這些疾病,受傷是可以預防的

從小朋友開始已經把這些意識灌輸給他們

從學校,讓學生知道什麼是職安健

以前會說賠償,受傷了便賠償給你

現在應該是避免,不要有傷害出現

如果做得好,保險費也相對減少,會有推動性

第三點是舉辦職安健活動

安全及健康同樣重要,透過網頁、會談、會議作宣傳

要深化和擴闊,由政府帶動

希望全民都一起做

要做這個文化,提出七件事,實質要做一些事情

七個黃金定律,有些斜體的

都是房署現有的類似措施,可以值得大家留意

第一, 一定要領導,由上面帶動一定是最有效

第二,我們的房屋署署長,主持一個環保、安全及健康的會議

另外,房署的副署長(發展及建築)專責跟進工地職安健會議

房署的副署長(機構事務)監察房署員工的職安健

有一個專責委員會負責

我們提出4C,如果聽得多我們的講座,就會知道4C的

房委會項目團隊方面 有工地的安全約章和工地安全委員會

第二件事,認識危害,我們有一個名單管理制度 那一間公司有能力才能進我們的名單去投標 投標也要看安全的紀錄,要求他們有一個認證 稍後我們的同事也會跟我們分享認證的要求 進入投標後,我們會有不同的監察系統 例如承建商表現評分制 房委會安全稽核及突擊安全巡查計劃 接著,我們在工程推出前,要經過很多次設計審查會議 建築諮詢小組、環保評分小組、項目設計檢討委員會 你們承建商可能不太認識 我們有很多輪的檢討,加上屋邨管理處的 同事查看將來項目興建完成後的危害在哪裏 盡量在源頭消滅及減少危害是很重要的 工地承建商要採用建築訊息模擬系統 每月安全及健康工地會議,安全計劃 很多事情、很多工具在這裏

第三個因素就是訂立目標,房署目標是什麼? 是零致命意外及千人意外率不多過九 第四,有系統,職安健系統 我們經常說三管齊下 第一是採購策略和表現監察 第二是加強合約規管,第三是訓練推廣 另外就是工地推行安全施工程序 第五,工地的環境 我們要跟隨合約及跟隨法例

工地的一些機械要符合環保要求,提供休息的地方 第六樣是能力

承建商的人員,我們有培訓的要求,資格的要求 我們的同事亦都有一個工地安全訓練計劃 我們都要充實自己,在工地才會懂得查看安全的情況 第七是人

要推動全民參與,給一些獎勵,給一些活動,讓他們參與你們也有參與,你們在安全支付計劃可以拿到款項 有小小的推動性

P牌及N牌,這些都是希望工人能夠參與多一點 受到訓練,受到照顧

在9月4號,有些都跟大家分享一下 媒體是很有效的工具,拍一段短片 半分鐘或2分鐘已經帶到很多安全訊息出來 職安局方面亦都拿到了一個獎項,是大獎來的 主要是說一些廚房裏面的安全,得到了國際認同 馮小姐在9月4日分享了房署的創新措施 當中可也有你們的作品包含當中 你們做多一點創新,我們就多一點材料分享

9月5日,剛剛有提及很着重年輕人跟的參與 當中左手邊那個桌子最尾的那一位 就是他們的勞工部第二部長 他們能找到一班年青人,大家一起參加職安健的工作 他們邀請了百多人,從全世界邀請來的 右手邊這張相是他們上台分享了 在當地自己有什麼得着,有什麼貢獻 做完這個會議,他們回到自己的地方都可以交流 變成了整個世界的網絡 在他們自己的地方再提升對職安健的水平

9月3日至6日也有一個展覽,有機械人 香港部分承建商也開始嘗試 有承建商將虛擬實境作為訓練的工具之一 至閉幕禮,由勞工部的部長做一個閉幕 另外請到這位醫生,他從小就患病,是小兒麻痹症 為什麼會患病呢,因為他父母沒有為他注射疫苗 就是差那一針,他就跛了,需要坐輪椅 但是他沒有放棄,最後成為了一位醫生 他上台講述預防的重要性,只是差一針 他就變了一輩子都要坐輪椅 如果打一針他就不用這樣了

我們參觀了3M公司,左下角的那一幅圖 大家都知道是不安全的行為,不安全的環境 接著成為險失事故,跌了一件物件 拾回它,但再進一步可能會出現受傷事件 嚴重一點是要報告的,要上報勞工處 再進一步就變成致命意外 一層層的遞進 很多時候險失事故,我們都要承建商報告的 我們十分著重,今天是險失事故 明天不知道會否變為致命意外 我的分享到此為止 多謝大家

多謝觀看

(20:10)