

Paper on Different Measures to Prevent Heat Stroke on High Ambient Temperature Due to Global Warming

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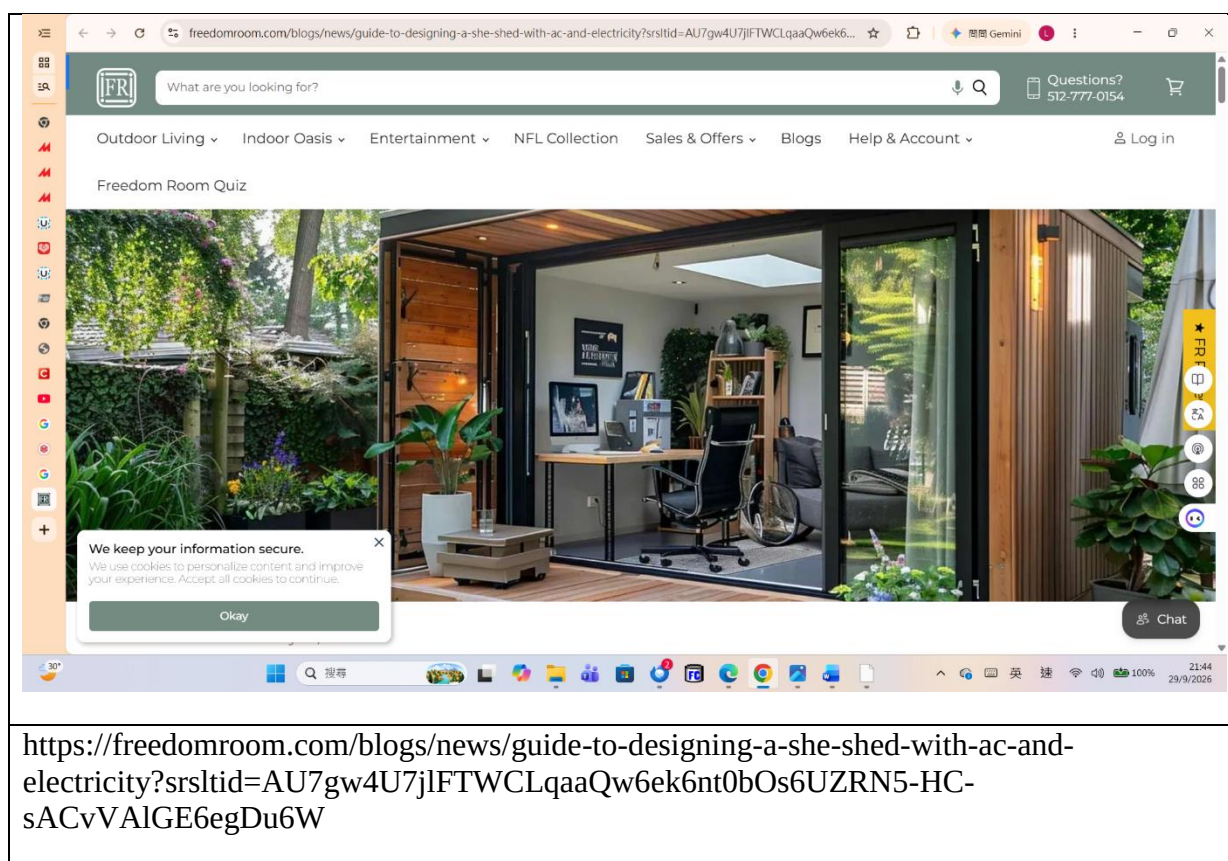
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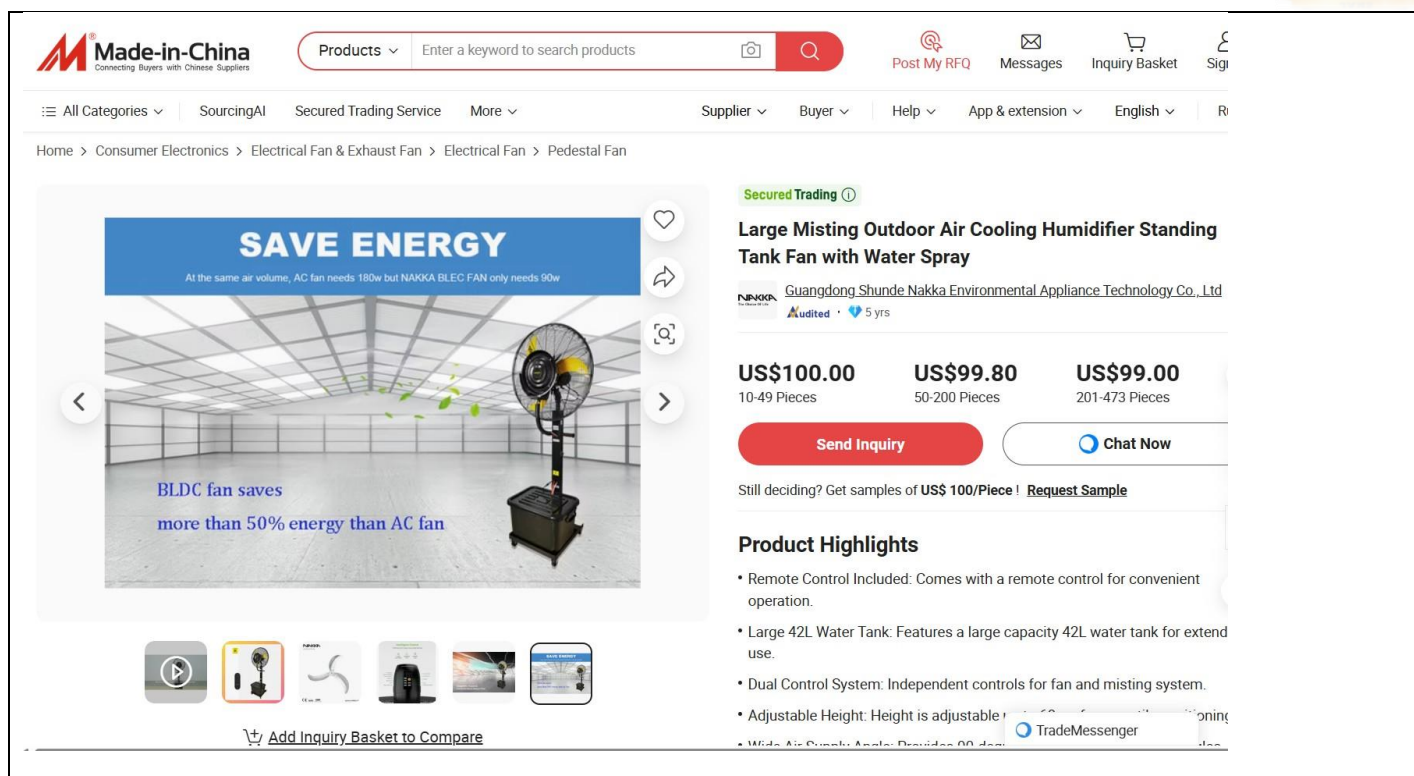
ABSTRACT/CONTENT

In view of extreme high ambient temperature in the world, many people get heat stroke in outside environment or in construction sites this summer 2026, this paper to illustrate different measures to reduce heat stroke of people.

Fatal accident to construction workers is heat stroke. Contractors to provide MVAC resting place on sites, to allow workers feeling sick and enter, lie down, drink water, most effective to reduce fatal. See a typical site cooling shed below:



Also high ambient temperature, excessive sweating, lack of water in body, is another factor for heat stroke, spray water vapour on site to lower ambient temp. There are such portable propeller fan integral with water tank, on sale in market, can buy and put on sites. See photos below:



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Guangdong Shunde Nakka Environmental Appliance Technology Co., Ltd

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Product Highlights

- Remote Control Included: Comes with a remote control for convenient operation.
- Large 42L Water Tank: Features a large capacity 42L water tank for extend use.
- Dual Control System: Independent controls for fan and misting system.
- Adjustable Height: Height is adjustable.
- Wide Air Supply Angle: Provides 90 degrees of cooling.

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For govt dept info and the world EU for buying this fan integral with water tank, good initiative, very cheap, can ask local factory to manufacture easy. Suck the water to fan and blow the humid air out, cool air effectively

Also in the market, there are chilling jacket to wear and cool body. Contractors to buy those jackets as PPE for workers to wear. See photos below:



Yau-shing.com.hk/product/thanko-cooling-vest-2026/?attribute_%25e8%2583%258c%25e5%25bf...

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珀爾帖板
從極低溫度到最高溫度
-19°C
風力特強
每台風扇每秒最大風量
約43L

30°C 晴時多雲

21:08 29/9/2026



Thanko Cooling Vest 2026 極冷冷藏服 (多個款式/尺寸) | 友誠五金

https://yau-shing.com.hk/product/thanko-cooling-vest-2026/?attribute_%25e8%2583%258c%25e5%25bf%2583-%25e7%259f%25ad%25e8%25a2%2596=%E7%9F%AD%E8%A2%96%E6%AC%BE&attribute_%25e9%25a1%258f%25e8%2589%25b2=%E6%B5%B7%E8%BB%8D%E8%97%8D&attribute_%25e5%25b0%25ba%25e5%25af%25b8=5L&gad_source=1&gad_campaignid=23014825810&gbraid=0AAAAADFL8UJiuTePMsL0_czViTQeYTOAo&gclid=CjwKCAjww-3VBhAcEiwAwUUIu_yMTTOwszTLOug3BQRH-5YAbeDJvb72WVX-6fZmwF-iTxKu3UpEdhoCtzYQAvD_BwE

After resting in air-conditioning shed for a while, if sick worker has recovered, can continue to work, not delay the tight construction deadline, clients can impose heavy Liquidated Damage penalty LD on contractors who delay the construction, tens of thousand dollars a day. Hence if workers feel uncomfortable, go into MVAC resting shed to lie down for 30min, drink water, can resume to comfortable and work again. Then not delay construction progress. Too heavy accident penalty and restriction affect contractor business, esp now bad economy, contractors are not well off, too harsh penalty & restriction can cause them unable to do business. They may quit, withdraw from HK. Many big contractors left HK already after hit by Art23, more will leave after bylaw effective now. Govt inside ivory tower not know outside poor conditions, majority not know industry normal working mode and construction contract having LD provision on delay. Consult experienced consultant before push out policies.

Often Govt policy its intention is good, but not thorough thinking, then backfire to other problems. Stop all traffics at cross roads to allow pedestrians cross road randomly, disorderly, bad impression to people seeing it. Cause traffic congestion.

Drones insisted on unnecessary , unsuitable applications, waste govt civil servant time and effort, instead of using CCTV cameras, right method and effective method. Only yi qi ji zeng to use drone. To people, and not to things which will benefit society and public. Argue for the sake of benefit public, society & country is



outspoken loving own hk and china is right. Hot temper argument directly oppose on righteous people harm public and society. Govt must avoid.

Labour Dept is good, compliment to Hui Chief, willing to take action on solving hot climate affect workers health, can absorb right opinions from experienced working consultant in society. Pls feel free to contact me for free of charge consultation. Lord bless Hui chief and Labour Dept.

APPENDIX

Samuel Lip award records in word record

(can submit photos of awards if needed)

Version 21 July 2025

1. Samuel as Senior Engineer in Thorn Security (2002-2006) won awards for Thorn with colleagues under Oliver Leung , HR & safety Committee chairman

Safety Management for Best Occupational Safety & Health Maintenance Contractor Award Competition

Dear Ladies & gentlemen

Thorn Security (Hong Kong) Limited is part of the internationally renowned Tyco Group which has a comprehensive global safety policy and system for all its subsidiary companies worldwide. Thorn has long in place a Safety & Health (S& H) Management System. With the Factories & Industry Undertaking (Safety Management) Regulation came into effect in Year 2002, Thorn has further developed its S&H management system in full compliance with the Code of Practice of Safety Management issued by Labour Department. The fourteen elements of Safety Management in the above-mentioned COP have been fully implemented successfully. Thorn 's accident rate and lost time rate are consistently very low with the above system implemented. In recent years, Thorn has recorded no accident and no lost time in its 400,000 worked hours per year.

Thorn has set up a Company Safety Committee headed by a chairman who is a senior staff of the company. Each department has also set up its department safety committee, which is assisted by a department safety representative in each department. These department safety committees hold meeting with staff & subcontractors every month to discuss about environment, health & safety issues. Apart from site induction training & toolbox training, special training courses are provided to relevant staff each month after the monthly department safety meetings. Site inspections are carried out by safety supervisors weekly, and by project managers monthly, and by department managers quarterly.

Being belong to Tyco Fire Security (TFS) Business Segment of Tyco, Thorn rolled out the TFS global safety policy in May 2005. A hyperlink (in TFS intranet) on Environment Health & Safety (EHS) was commissioned by TFS in May 2005 where EHS manuals, procedures, safety organisation charts, inspection check lists, safety alerts etc. can be downloaded. Hard copies of EHS manuals and procedures were distributed to all its subsidiary companies of TFS in April 2005. EHS activities in all subsidiary companies are co-ordinated by the EHS manager in TFS Divisional Headquarter (DHQ). Monthly EHS metrics and safety reports are submitted to DHQ to report on any accidents, or violations in environmental issues. Annual safety goals are formulated to ensure that all subsidiary companies comply with them.

In conclusion, Thorn has maintained a very high standard of EHS system complying with both local and Tyco's requirements. The Management and every member of Thorn recognise that good environment, health & safety are the No.1 objective of Thorn. Last year (2004), Thorn won safety & health awards from Airport Authority Hong Kong, Mass Transit Railway Corporation, Occupational Safety & Health Council and was finally awarded the Best EHS Company in Asia by Tyco. Thorn will continue to strive that our workers will work in a safe, and healthy environment.



Thank you,

Thorn HR & company safety committee chairman Oliver Leung

科藝防火安全工程(香港)有限公司 - 工作場所安全与環保

梁柏雄先生

無論你在任何環境工作, 工作場所安全對雇員和客人特別重要。

科藝防火安全工程(香港)有限公司.是Tyco集團下的一部分,Tyco對於所有它全球的輔屬公司建設了全面的安全策略和系統。它對安全的要求極為重要。科藝已經超過十年制定了 長期的安全健康管理系統。

在2002年,當工廠和工業經營(安全管理)條例開始生效時,科藝更進一步徹底提高它的安全管理系統和實踐,令意外事件,事故大大的減少,新策略證實高度成功並且大大減少因工傷失去的時間。近年來,科藝沒有記錄得工傷事故和因工傷失去的時間。科藝每年工人工作約400,000 工時。

對安全的承諾,包括委任梁柏雄先生為公司安全委員會主席,領導公司安全委員會。每一個部門都有它的安全委員會,由一個安全代表幫助。部門安全委員會與雇員和承包商每月會討論環境,健康和安全的問題。除了地盆入職和工具箱訓練,在每月會議中也實施了特別訓練課程。地盆有作定期的視察.確定遵守職安健條例。

在 1996以後,科藝成為了 Tyco Fire & Security(TFS) 一部分。在 2005 年5月 25日科藝領先執行(TFS)全球安全的策略。TFS且有企業內部互聯網放置了全球安全策略,安全組織(架構),所有 EHS 手冊, 程序, 檢查列表, 安全警惕等等,讓雇員下載。其後且對雇員分發 EHS 手冊和程序副本。以配合全球策略,科藝每月提交環境,健康和安全的報告給TFS在新加坡的司令部,確保在環境,安全和健康的問題上沒有違反。 每年也制定安全目標以確保遵循。

如同往年,科藝嚴格遵從環境,健康和安全的標準和實踐。在2004年科藝由香港機場管理局,地下鐵路公司, 職業安全和健康局獲得獎項,且獲Tyco 授予全亞洲的最好的安全,健康和環保獎。

Thorn HR & company safety committee chairman Oliver Leung

Award No.1: On 14 May 2004, Thorn won a Safety Award from Airport Authority Hong Kong (AAHK).

The award was presented to Management and Staff of Thorn Security (Hong Kong) Limited in recognition of Thorn's commitment to safety and achieving zero staff work related injuries at Hong Kong International Airport for two consecutive years (2002/3 and 2003/4).

(Please see Enclosure No.1a showing the Award Certificate)

Reasons for achieving the Award are as follows:

- Thorn has been achieving zero accident in two consecutive years (2003/2004)
- Thorn's performance in AAHK in this contract is good.

(Please see Enclosure No.1b showing the performance charts of Thorn in this contract – notably the response time of Thorn to attendance call in average is only 2 minutes, very much less than the 30 minutes specified in contract)



Award No.2: On 9 September 2004 Thorn won a Safety Performance Award for E&M Works Project from Mass Transit Railway Corporation.(MTRC)

(Please see Enclosure No.2 for the Award Certificate)

Details of Award are as follows:

MTRC quarterly will audit its contractors working for it. Scores will be given to each contractor based on the audit by MTRC. The safety grading is : outstanding (91-100), satisfactory (81-90), acceptable (71-80), marginally acceptable (60-70), poor (51-60), unacceptable (≤ 50). The audited safety elements are: safety policy, safety organization, safety training, in-house safety rules & regulations, safety committee, programme for inspection of hazardous condition, job hazard analysis & process control, personal protection programme, accident/incident investigation, emergency preparedness, safety promotion, health assurance programme; evaluation, selection & control of subcontractors; review of safety plan/method statement.

Reasons for achieving the Award are as follows:

Thorn has performed very well in the above safety & health aspects of MTRC contracts and hence has won this award. Please see the excellent audit result performance from MTRC audit on 15.9.04 given below on Contract M937-01E.

Award No.3:On 18-19 September 2004 Thorn won a Safety promotion Award from Occupational Safety & Health Council of Hong Kong.

Thorn participated in safety quiz competitions organised by Occupational Safety & Health Council and won the Outstanding Safety Award.

(Please see Enclosure 3 for the Award Certificate)

Excellent Audit Result Performance from Mass Transit Railway Corporation (MTRC):

Recently Thorn has achieved another excellent safety performance in audit result. In a MTR audit on 15.9.04, Thorn achieved safety score of “97” out of “100” in Contract No. M937-01E 3-year (2004-2007) Maintenance Contract for MTR Station – Lantau Airport Railway. (Please see Enclosure 4 for the correspondence confirming the audit score of “97”)

- (1) Best Occupation Safety & Health (OSH) Maintenance & Refurbishment Contractor Award (September 2005)
- (2) Safety Recognition Award 2005 (October 2005).
- (3) Safety Quiz Award 2005 (September 2005)
- (4) Excellence Audit result from Mass Transit Railway Corporation (October 2005)

Safety Initiative (October 2005)

- (1) Thorn won the “Best OSH Maintenance & Refurbishment Contractor Award” from Occupational Safety & Health Council (OSHC) on 9.9.05 in Hong Kong. Details of the award are given in Appendix 1.1 ~1.4, Photos 1.1~1.2.
- (2) Thorn won the “Safety Recognition Award 2005” from Mr. Mark Barry, President, Tyco Fire & Security Asia in October 2005 presented to Thorn Security Management & Staff in recognition of outstanding efforts and achievements in managing workplace safety. Please refer Photo 2.0 of the Award Trophy.



- (3) Thorn won the Outstanding Award in Occupational Safety & Health Quiz Competition from Occupational Safety & Health Council on 4.9.05. Please refer Appendix 3.0 of the Award Certificate.
- (4) Thorn had an excellent safety audit result (100%) from Mass Transit Railway Corporation (Notified by MTRC on 1.10.05) at Lantau Airport Railway (LAR) project.

In most cases, frontline workers are the staff to have accidents. As preventive action, Thorn's Department Managers have been organising frontline workers to come to Headquarter monthly for EHS training and the training has been proved to be very effective. Risk of accident is reduced and safety awareness is increased. To further increase attendance from workers, Thorn developed a sample of Attendance Certificate in October 2005. The Attendance Certificate will improve the frontline workers' qualifications and certainly will motivate them to come to Headquarters for EHS training. With effect from 24.10.05, attendance certificates are distributed to attendees in future EHS training.

2. Samuel award record in own Lordray (2013-present)

Application for Jointed Engineering Award of China, HK and Macau

From Lordray Engineering Co. Ltd

www.lordray.com.hk

Topic: Fire Services achievement of Lordray

I am Founder & MD of Lordray. I have been MIFE and RPE Fire in HK for 20 years, and actively participating in FS business and as speaker in FS topics in HKIE and many corporations. I actively help FS clients in the design and writing of FS reports, attend site audits, endorsement and RPE (Fire) signatures of FSIs, staircase pressurizations and smoke extractions with FSD in their compliance inspection. Please refer to the attached file or my credentials in FS (CPDs, speakers appreciation certificates, invoices, POs of doing FS tasks etc).

I have been FSD FS Advisory Group nominated by HKIE to help in the adoption of BS EN 12845 in year 2000 era. I have been HOKLAS Assessor in HKAS of ITC and nominated as member of International ISO organization since 2004 until now, still currently appointed as HOKLAS Assessor. I attend regularly the activities, seminars of IFE & FSD. I was Sai Kung District Fire Services Committee and FS Ambassador for 7 years in 2000 decade and attended actively in FSD functions, cocktails and gatherings then. I am BD AS (Ventilation), specialist contractor of BD. My own training school SMA (Training Centre of UK TQUK in HK) www.stmedia-asia.com regularly conducts BD Ventilation Preparatory courses of which I am the trainer. Please refer attached credentials file of training fliers and programme. I was Assoc Professor of Chu Hai College of Advanced Education in 2021-2 of which FS is one of the topics in the BS curriculum then.

Personally I am BD Registered Minor Work Contractor Class 3. My own company Lordray www.lordray.com.hk is BD Registered Minor Work Contractor Class 1, able to completely do all the 8 types of minor work of BD.

I am WSD QPs. My own Lordray is WSD RPC and I am AR of my own RPC, checking, inspecting, witnessing of site static water pressure tests, vetting, endorsing & RPE signature of WWO46 submissions in the installation of FS pipework installation in new development & replumbing.

I worked as Senior Engineer in renowned FS contractor, Thorn Security (HK) Limited in 2002-2006 in construction of FS installation in HKIA Airport East Wing Expansion then.

I have MSc in Fire Services from SCOPE of CityU, awarded by University of Central Lancashire in UK. I taught FS subject in University of Hong Kong for MSc students in 2000 era.



I am Fellow members of 6 famous institutions, viz, FIE.Aust, FCIBSE, FIMechE, FCIPHE, FCABE, FHKICA. I am CPE, FIE.Aust and have been its HK Branch committee and now is EA committee member in its Tunnel Division. I am FCABE and its Panel Interviewer & Assessor for CEng applicants. I am HKIE CAI Division committee, HKIE Scheme A Engineering Supervisor for 6 years. I am VTC E&M Assessor (QF Section), its Assessor & interviewer of QF applicants (Grade 1-4).