

OCCUPATIONAL SAFETY & HEALTH COUNCIL

TENDER FOR SERVICES

Tender Ref: FIN/20-606

LODGING OF TENDER

To be acceptable as a tender, this form, properly completed and enclosed in a sealed envelope marked **“Tender for Undertaking a Consultancy Study on In-depth Analysis on Fatal Industrial Accidents in Hong Kong”** and addressed to the General Manager and must be deposited in Council’s Tender Box situated at **19/F China United Centre, 28 Marble Road, North Point, Hong Kong before 12:00 noon on 22 March 2023 (Wednesday)**. The envelope should be clearly marked “Confidential”. Late tenders will not be accepted and faxed or unsealed tender will risk the tenders being not accepted.

- In case a rainstorm black warning or typhoon signal No. 8 or above or “extreme conditions after super typhoons” announced by the Government is/are in force at any time between 9:00 a.m. and 12:00 noon on the tender closing date, the tender closing time for tenders to be submitted to Occupational Safety and Health Council will be extended to 12:00 noon on the next working day (other than Saturday, Sunday and public holiday, unless otherwise specified in the tender document) after the tropical cyclone signal No. 8 is lowered, or the black rainstorm warning signal or the “extreme conditions after super typhoons” announced by the Government has/have ceased to be in force.

INTERPRETATION

In this form, unless the context otherwise requires :

“Contract”	means the Contract hereunder and reference to the terms thereof shall include the terms of tender in PART 1 hereof unless inconsistent with the context of such reference;
“Contractor”	means the Tenderer whose tender is accepted as hereinafter provided;
“Council”	means the Occupational Safety & Health Council;
“Inspecting Officer”	means the officer appointed by the Council for the purpose of inspecting the services performed in pursuance of the contract herein;
“Services”	means the work referred to in the schedule attached hereto;
“Tender date”	means the latest date by which tenders must be lodged;
“Tenderer”	means the person or persons and/or the firm or the company hereinafter mentioned in Part IV.

PART I
TERMS OF TENDER

1. Invitation to Tender

Tenders are invited for the execution of the whole (or any part) of the services more particularly set out in the Tender Schedule ("Schedule") attached hereto subject to and in accordance with these Terms of Tender, the General Conditions set out in Part II hereof and the Special Conditions set out in Part III hereof.

2. Tender

- (a) This tender relates to the execution of all (or any part) of the services during the Contract period as specified in the Schedule.
- (b) The Schedule issued with this tender must not be altered by the Tenderer. Any modification of the items required by the Schedule considered necessary by the Tenderer should be listed in a separate letter accompanying the tender. Figures should not be altered or erased; any alteration should be effected by striking through the incorrect figures and inserting the correct figures in ink above the original figures. All such amendments should be initialed by the Tenderer in ink.
- (c) Tenders are to be completed in ink or typescript; tenders not so completed may not be considered.
- (d) Tenders may not be considered if complete and correct information is not given with the tender or if any particulars and data asked for in the Schedule are not furnished in full.

3. Tenders to Remain Open

Tenders shall, unless otherwise indicated by the Tenderer, remain open for not less than 90 days after the tender date. Prices must remain unchanged on supplementary variations, if any.

4. Charges

- (a) The charges to be quoted by Tenderers are to be shown in Hong Kong currency and must only be made in accordance to the specifications listed in the Schedule. Such charges shall be net and where applicable, they shall include trade and cash discounts and all expenses incidental to the due and proper performance of this Contract by the Contractor.
- (b) If, at the request of the Contractor, assistance of any Council staff is provided after normal working hours (i.e. Mondays to Fridays, inclusive, 9:00 a.m. to 5:30 p.m.; Saturdays, Sundays and public holidays excepted) the Contractor will be responsible for the overtime remuneration, subsistence allowances and traveling expenses of such Council staff directly engaged in such assistance.

5. Contractors' Performance Monitoring

Tenderers are advised that should they be awarded the Contract their subsequent performance will be monitored and may be taken into account when their future tenders are evaluated.

6. Tender Negotiations

The Council reserves the right to negotiate with any or all Tenderer(s) about the terms of the Tender.

7. Cancellation of tender

Without prejudice to the Council's rights to cancel the tender, where there are changes of requirement after Tender Closing Date for operational or whatever reasons, the Council is not bound to accept any conforming tender and reserves the right to cancel the tender.

8. Acceptance

The successful Tenderer will receive as an indication of acceptance the duplicate copy of this form with PART V hereof duly completed. Tenderers who do not receive any notification within 90 days of the tender date shall assume that their tenders have not been accepted.

9. Saving

The Council is not bound to accept the lowest or any tender and reserves the right to accept all or any part of any tender at any time within the period mentioned in clause 3 hereof.

Dated this 13th day of February 2023



Authorized signature

PART II
GENERAL CONDITIONS OF CONTRACT

1. Total Services and Variations

- (a) The services to be performed under this Contract shall be as laid down in the Schedule and Special Conditions and shall be carried out, as and when required, to the satisfaction of the Inspecting Officer. All orders placed under this Contract shall be issued in writing and Council will not be responsible for services performed on oral instructions issued by any person whomsoever.
- (b) The Contractor shall not extend the services beyond the requirements specified in the Schedule except as directed in writing by the Council; but the Council may, subject to the provision hereinafter contained, at any time during the Contract period by notice in writing direct the Contractor to alter, amend, omit, add to, or otherwise vary any of the services in the form, quality, quantity of any work or materials as well as the specifications and designs and/or the Contract period, and the Contractor shall carry out such variations, and be bound by the same conditions, so far as are applicable, as though the said variations were stated in the Schedule.

Provided that no such variation shall, except with the consent in writing of the Contractor, involve a net addition to or deduction from the Contract price of more than 1 percent or the Contract period of more than 1 week.

- (c) Where a variation has been made to the Contract the amount to be added to or deducted from the Contract price in accordance with that variation shall be determined in accordance with the rates specified in the Schedule so far as the same may be applicable and where rates are not contained in the said Schedule, or are not applicable, such amount shall be such sum as is reasonable in the circumstances.

Due account shall be taken of any partial execution of the services which are rendered useless by and such variation.

2. Assignment

The Contractor shall not, without the written consent of the Council, assign or otherwise transfer this Contract, or any part share of interest therein, and the performance of this Contract by the Contractor shall be deemed to be personal to him.

3. Quality of Services

- (a) The services shall be as specified in the Schedule (Part III) and shall fulfill all the conditions and terms of any Specifications supplied to the Contractor.
- (b) Any Specifications reasonably required for the Contractor's guidance in the execution of this Contract shall be provided by Council free of charge but shall be returned on completion of the Contract.

4. Inspection and Acceptance

- (a) All services performed in pursuance of this Contract shall be subject to a random sample inspection and shall not be deemed to have been accepted unless either:
 - the Council shall so certify; or
 - the services are not rejected as being unsatisfactory with 31 days of the date upon which they were executed
- (b) The specified size for a random sample inspection for the contracted quantities of (i) below 1,200, (ii) 1,201 – 3,200 and (iii) above 3,200 are (i) 80, (ii) 125 and (iii) 200 respectively. The average acceptance quality level is set at 2.5% for minor defects, 0.65% for major defects (ie functional), and in any case no critical defect (ie causing injuries to user or adversely affect the identity / goodwill of the Council) is allowed in the sample.
- (c) Any inspection not satisfying the acceptance quality level, the Council reserves the right to:
 - reject all or any of the services to the Contractor; or
 - require the Contractor to repair or replace all or part of the service; or
 - terminate the whole or any part of the Contract forthwith.

5. Rejections

- (a) Without prejudice to any statutory rights, the Council may reject any services (or part thereof) which do not strictly conform to the conditions of sub-clause (a) of clause 3 hereof.
- (b) Within 24 hours of being notified in writing of the rejection of any services the Contractor shall be required to take the necessary action to rectify such rejected services.

6. Insurance

Appropriate insurance policies including but not limited to employees' compensation, professional indemnity, public liability, contractors' all risks etc shall be effected by the Contractor throughout the project. Details

on the insurance policies to be taken should be provided to the Council in tender submission, and relevant policy copies should be supplied to the Council as soon as the contract is awarded.

7. Council Information

All information and data, including but not limited to the personal information of clients, participants, co-organizers, sponsors... etc provided by the Council to the Contractor in the execution of this Contract shall remain the property of the Council, the Contractor shall not use or release such information or data for other purposes without the prior written consent of the Council.

8. Council Property

When Council property is issued to the Contractor under the Contract, the Contractor shall be responsible for the due return of all such property. Should any such property be lost or damaged from any cause whatsoever while in the possession or control of the Contractor or his servants, workmen or agents, the Contractor shall pay for the same at total original cost plus 20%. A count of the articles or material in the possession of the Contractor may be made at any time by the Council and the Contractor shall render such assistance as is necessary for this purpose.

9. Council Premises/Contractor's Premises

- (a) The Contractor shall ensure that all persons engaged by him in carrying out this Contract keep to such parts of Council premises as are necessary for the due discharge of the Contractor's obligations under this Contract.
- (b) Where the services are carried out on the Contractor's premises such premises shall be open to inspection by the Council's Inspecting Officer at all reasonable times.
- (c) The safety of any craft, vessel and vehicle used by the Contractor and brought alongside or onto Council premises, as the case may be, shall be the responsibility of the Contractor, who shall indemnify Council in respect of any loss of damage to such Council premises.

10. Safety and Health

The Contractor shall always observe the prevailing Safety and Health Ordinance and Regulations in Hong Kong and he shall be responsible to meet all of the statutory requirements with respect to safety and health and other standards in Hong Kong, such that a safe and health environment is thoroughly provided for the due discharge of the Contractor's obligations under this Contract.

11. Publicity

The Contractor shall submit to the Council all advertising or other publicity material relating to the Contract

of the products supplied or other work done in connection with the Contract wherein the Council's name is mentioned or language used from which a connection with the Council can reasonably be inferred or implied. The Contractor shall not publish or use any of these advertising or publicity material without prior written consent of the Council.

12. Payment for Services

The Contractor shall render to the Council:

- (a) On completion of any separate portion of the services (in respect of which a charge is laid down in the Schedule) an account for such portion.

All such accounts shall be signed by the Council's Inspecting Officer. Unless otherwise agreed by the Council such accounts shall be paid within 30 days of the date upon which:

- where the said accounts are signed by the Council's Inspecting Officer; or
- where the services have been accepted pursuant to clause 4(a) of the General Conditions herein, whichever date is the earlier.

13. Default

- (a) If the Contractor shall fail to carry out all or any of the services provided for in the Contract within the Contract period or such extended period as may be agreed in accordance with clause 1(b) hereof, the Council may terminate the whole or any part of this Contract by notice in writing addressed to the Contractor but without prejudice to any claims by the Council for breach of Contract and in particular, the right of Council to assign the balance of the uncompleted services to another contractor or contractors whereupon the Contractor shall be liable for any sums so incurred in excess (hereinafter called "any excess") of the contract price.
- (b) Any act, default, neglect or omission of any sub-contractor (if any), employee, licensee, invitee of the Contractor shall be deemed to be the act, default, neglect or omission of the Contractor.

14. Illegal Workers

- (a) The Contractor undertakes not to employ illegal workers in the execution of any Council contracts. Should the Contractor be found to have employed illegal workers in breach of this undertaking the Council's Inspecting Officer may, on behalf of the Council, by notice in writing, terminate the Contract and the Contractor is not entitled to claim any compensation
- (b) The Contractor shall be liable for all expenses necessarily incurred by the Council as the result of termination of this Contract.

15. Payment of Wages

- (a) The Contractor shall promptly pay salaries to his employees who are employed for the purpose of this Contract, failure to do so will entitle the Council to terminate the Contract forthwith without liable to pay to the Contractor any compensation whatsoever
- (b) The Contractor shall always observe and offer the wage rates to the workers employed, during the Contract, not lower than the wage rates published in the Quarterly Report by Census and Statistics Department of HKSAR.

16. Engagement of Labour

- (a) The Contractor shall make his own arrangements in regard to the provision of such labour, skilled and unskilled, as may be required for the execution, completion, and maintenance of the Services and shall use all diligence in arranging for a sufficient and suitable supply of such labour but all arrangements shall be in accordance with the general local usage and Employment Ordinance (Cap. 57) and subject to such regulations as the Council may from time to time require to be observed.
- (b) As far as practicable all labour both skilled and unskilled shall be engaged in Hong Kong.

17. Recovery of Sums due

Whenever under this Contract any sum of money shall be recoverable from or payable by the Contractor, the same may be deducted from any sum then due or which at any time thereafter may become due to the Contractor under this or any other Contract with the Council.

18. Liability for Damages or Compensation

- (a) Council and its employees or agents shall not be under any liability whatsoever for or in respect of : -
 - any loss of or damage to any of the Contractor's property or that of its employees or agents however caused (whether by any Negligence of the Council or any of its employees or agents or otherwise).
 - any injury to or death of any of the Contractor's employees or agents save and except any such injury or death caused by the Negligence of the Council or any of its employees or agents.
- (b) The Contractor shall indemnify the Council and its employees or agents against any claim or demand made against or liability incurred (including all costs charges or expenses whatsoever) by the Council or any of its employees or agents in respect of : -
 - any loss, damage, injury or death referred to in sub-clause (a) of this clause (save and except injury or death caused by the Negligence of Council or any of its employees or agents).

- any loss or damage sustained by or any injury to or death of any third party in consequence of any Negligence of the Contractor or any of its employees or agents.
- (c) The Contractor shall indemnify the Council against any loss of or damage to any property of the Council or any of its employees or agents or any injury to any employee or agent of the Council arising out of the negligence of the Contractor or any of its employees, sub-contractors or agents.
- (d) The Contractor shall effect a policy of insurance against all claims, demands or liability as aforesaid in this clause with an insurance company approved by Council (which approval shall not be unreasonably withheld) and shall continue such insurance during the continuance of this contract and shall when required, deposit with the Council for safe keeping during the Contract period such policy of insurance together with the receipt of payment of the current premium.
- (e) If the Contractor shall fail to effect and keep in force the insurance referred to or any other insurance which he may be required to effect under the terms of the Contract then and in any such cases Council may effect and keep in force any such insurance and pay such premium or premiums as may be necessary for that purpose and from time to time deduct the amount so paid by Council as aforesaid from any moneys due or which may become due to the Contractor or recover the same as a debt due from the Contractor.
- (f) In the event of any of the Contractor's employees or agents suffering any injury or death in the course of or arising out of this Contract and whether there be a claim for compensation or not, the Contractor shall within 7 clear working days give notice in writing of such injury or death to the Council.
- (g) For the purpose of this clause "Negligence" shall have the same meaning as that assigned to it in Section 2(1) of the Control of Exemption Clauses Ordinance.

19. Bankruptcy

The Council may at any time by notice in writing summarily terminate this Contract without entitling the Contractor to compensation in any of the following events:

- (a) if the Contractor shall at any time be adjudged bankrupt, or shall have a receiving order or orders for administration of his estate made against him, or shall take any proceedings for liquidation or composition under any Bankruptcy Ordinance for the time being in force, or make any conveyance or assignment of his effects or composition or arrangement for the benefit of his creditors or purports so to do; or
- (b) if the Contractor, being a company shall pass a resolution or the Court shall make an order for the

liquidation of its assets, or a Receiver or Manager shall be appointed on behalf of the debenture holders, or circumstances shall have arisen which entitled the Court or debenture holders to appoint a Receiver or Manager.

Provided always that such determination shall not prejudice or affect any right or action or remedy which shall have accrued or shall accrue thereafter to the Council.

20. Corrupt Gifts

- (a) If the Contractor or any employee or agent of the Contractor shall be found to have committed an offence under the Prevention of Bribery Ordinance (Chapter 201) or any subsidiary legislation made thereunder or under any law of a similar nature in relation to this contract or any other Council contract, the Council may summarily terminate this contract without entitling the Contractor to any compensation.
- (b) The Contractor shall be liable for all expenses necessarily incurred by the Council as the result of the termination of this contract.

21. Copyright and other Intellectual Property Rights

The Council shall be the exclusive owner of all deliverables, information, reports, documents, plans, software, data and materials created, supplied or produced under the Contract as well as the copyright and intellectual property rights therein. Upon completion of the Contract, the Contractor will be required to deliver to the Council all working papers, computer disks, tapes or other material and documents provided to or prepared by the Contractor pursuant to the Contract.

The Contractor should ensure that no intellectual property rights of any third party have been or will be infringed and shall indemnify the Council against any claims for breach of intellectual property rights.

22. Confidentiality

The Contractor shall not disclose the terms and conditions of this Contract, or any information, report, document, plan, software, data or other particulars finished by or on behalf of Council on by the third parties in connection therewith, to any person other than a person who is employed or engaged by the Contractor in carrying out the Contract.

The Contractor shall not without prior written consent of Council publish, either alone or in conjunction with any other person, in any newspaper, magazine, periodical, film, video or other medium, any article, photograph or illustration relating to the subject matter of the Contractor.

23. Governing Law

The Contract shall be governed by and construed in accordance with the laws of Hong Kong and the parties hereby agree to submit to the jurisdiction of the courts of Hong Kong in relation to any matters arising out of the Contract.

These General Conditions shall apply to the extent to which they are not inconsistent with the Special Conditions set out in Part III.

PART III
TENDER SCHEDULE : SPECIAL CONDITIONS OF CONTRACT

1. SERVICES TO BE PERFORMED

To undertake a Consultancy Study on In-depth Analysis on Fatal Industrial Accidents in Hong Kong.

2. SPECIFICATIONS

- a. Please refer to the **brief** notes enclosed in p. 13-20.
- b. All Invited Contractors should submit the information of their staff, including their strengths, qualifications and experience to be involved in the study.
- c. All Invited Contractors should submit relevant past work done for similar project in Hong Kong or overseas.
- d. All Invited Contractors should submit a detailed work plan with specified time schedule of each output/ deliverable produced during/ for the study, estimated budget of each item and the total budget and any optional items to be proposed.

3. PREREQUISITE

The successful tenderer has to complete the registration form by submitting all the required documents and meeting the formalities necessary for a provisional supplier registration with the Council before the Tender Contract is awarded. The application form can be downloaded from the Council website <http://www.oshc.org.hk>.

4. ENQUIRIES

Occupational Safety & Health Council
18/F China United Centre
28 Marble Road
North Point
Hong Kong

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Occupational Safety and Health Council
Brief on Undertaking a Consultancy Study on
In-depth Analysis on Fatal Industrial Accidents in Hong Kong

1. Background

Fatal occupational injuries are always a concern with severe social repercussions: it is clear that it has a permanent impact on employees' families and causes direct and indirect costs to employers, workers and the community at large. According to International Labour Organization (ILO), fatal occupational injury is an occupational injury leading to death within one year of the day of the occupational accident (ILO, 1998). In Hong Kong, a work injury is defined as an injury or death as a result of an accident arising out of and in the course of employment (Labour Department, 2022a). An employer must notify the Commissioner for Labour of any accident (including work injury resulting in incapacity for a period no exceeding 3 days, exceeding 3 days and death), irrespective of whether the accident gives rise to any liability to pay compensation. The statistics of the Labour Department on workplace injuries include two major categories—occupational injuries in all workplaces and industrial accidents in all industrial undertakings. The former refers to injury cases in workplaces reported under the Employees' Compensation Ordinance, resulting in death or incapacity for work of over three days, while the latter refers to injuries and deaths arising from industrial activities in industrial undertakings as defined under the Factories and Industrial Undertakings Ordinance (Labour Department, 2022b).

Fatal injury rates are commonly used for cross-country comparisons. In UK, the rate of fatal work injury per 100,000 workers were 0.45 and 0.38 in 2020 and 2021 respectively (HSE, 2022). According to the statistics of United States Department of Labor's on worker fatalities in 2020 (United States Department of Labor, 2021) and the total number of employees in the nation in the same year (Statista, 2022), it was estimated that the fatality rate per 100,000 workers was 3.2 in 2020 (United States Department of Labor, 2022). In Hong Kong, according to the Labour Department, the industrial fatality rates per 100,000 workers in all industries in 2020 and 2021 were 3.6 and 4.3 respectively (Labour Department, 2022), higher than that of UK and the USA. The Hong Kong statistics for fatal industrial accidents are grim, particularly in construction.

In HK, fatal industrial accidents are investigated by the Labour Department. An industrial death does not necessarily mean that an inquest has to be held by the Coroner, except for certain categories of death. The Coroners Ordinance sets out 20 categories of deaths which should be reported to the Coroner, including a death caused by an accident or injury. If the Coroner is uncertain of the cause of death or for other reasons, he will order an autopsy and consider whether an investigation is needed. For cases that should be investigated, the Coroner considers relevant reports and decides whether an inquest should be held, calling on expert opinion where necessary.

The Occupational Safety and Health Council (OSHC), with the permission of the Coroner, has collected about 500 Coroners' reports on fatal industrial accidents in different industries in HK for analysis of relevant OSH risk factors and root causes of the accidents. These reports include the Coroner's closing submissions, investigation reports by Labor Department and Electrical and Mechanical Service Department (EMSD), technical reports of experts, and other documents that provided evidence/information for the Coroner's decision.

The Coroner's closing submissions are a statement about the inquest, and may include facts that the Coroner might find, recommendations the Coroner might make, legal issues that require consideration and any other matter relevant to the accident. They are documents that synthesize the evidence and opinions of different parties, including witnesses, employers, employees, family members and experts. These documents expound the conclusion of the accidents from the perspective of the death trial, which are of great significance for analyzing the fatal industry accidents, finding out the root causes and preventing the occurrence of similar accidents.

On the other hand, the LD's accident investigation reports provide information on witnesses, summaries, project background information, contractual employment relationships, circumstances, factual findings, observations, conclusion and recommendations. Technical reports from experts in universities or the government are available for some industrial cases collected by OSHC, if they involved complicated processes, operations, or professional knowledge (e.g., specialist knowledge in electrical science, mechanics or occupational hygiene).

Accident prevention is of great significance in avoiding or reducing all kinds of casualties and economic losses, and is one of the main challenges for social sustainable development. Hence, it has been an important research field for many decades. However, there were a few studies done on analysis of fatal accident cases, and even less so in Hong Kong. The OSHC conducted an in-depth study on Analysis of Coroner's Court Cases Caused by Fall-from-Height (FFH) in Hong Kong Construction Industry in 2014. The study analyzed the characteristics of 52 FFH fatal accidents in construction, and identified the latent risk factors of the accidents by using the Human Factors Analysis and Classification System (HFACS) (OSHC, 2014). There were some other papers focusing on fatal industrial accidents in HK, but these studies were descriptive in nature and did not explore in-depth analysis.

This study encourages the use of systematic analytical methods, such as accident causality analysis, to analyze hundreds of fatal accident reports from different industries in Hong Kong collected by the OSHC from the Coroner's Court. Finding the root causes of accidents is important for safety practitioners to formulate effect measures to prevent accidents and save workers' lives.

Accident causation analysis is a common and useful method for analyzing the causes of accidents in safety science. Accident causation models clarify the cause, process, and consequences of an accident, to provide a

clear analysis of the occurrence and development of the accident (Fu et al., 2020). A suitable accident causation model should be applied in this study in order to analyze the causes of death for every single coroner cases comprehensively. Several causation models are recommended and have been widely used in research projects, namely Domino theory (Heinrich, 1969), Multiple Causation Model (Petersen 1971), Ferrel Theory (Ferrel 1977), Accimap (Rasmussen, 1997), Accident Human Factor Analysis and Classification System (HFACS) (Shappell and Wiegmann, 1997; 2000), and 24Model (Fu et al., 2005).

The aim of this study is to identify the comprehensive technical and managerial circumstances behind the fatal accidents. Over the years, there were few studies have focused on the epidemiology of HK occupational fatalities. This may be due to legal hurdles, where detailed investigation and cause analysis of major accidents are usually not publicly disclosed (Garrett and Teizer 2009). The coroner cases, therefore, are important and crucial to comprehensively mine the pattern of the contributory factors of accidents by all causes. It could be considered as the preliminary effort to dissect the accidents, which by identifying the root causes helps prevent reoccurrence of the accidents.

2. Aims of the Study

The aim of this study is to mine information in existing fatal industrial injury cases from The Coroner's Court and summarize the pattern of contributory factors of the accident cases according to existing developed accident causation models.

3 Objective of the Study

The Council is inviting an external Consultant to conduct the following:

- 3.1 To conduct a literature review to identify current status of fatal occupational injuries in Hong Kong and in global and the current accident causation model for the analysis of accidents.
- 3.2 To derive an approach of accident causation model to analyse Coroner's Court cases based on literature findings.
- 3.3 To discover the patterns of the key contributory factors of all the Coroner's Court cases collected by OSHC through data mining technique.
- 3.4 To classify the contributory factors of fatal occupational injuries in Hong Kong and identify the key factors of industrial accidents.
- 3.5 To recommend suggestions on the OSHC's strategies to effectively deliver its aims and objectives through promotion, education, consultancy, research and information for the local workforce to reduce the occurrence of industrial accidents in Hong Kong.

4 Methodology

The methods deployed should include the following features:

- 4.1 Literature review on fatal occupational injury in HK and in global and the application of accident causation models on the analysis of accident cases.
- 4.2 Qualitative approach should be adopted in this study. All of the fatal industrial accident cases collected by OSHC from the Coroner's Court in 2000 to 2021 should be reviewed and analyzed. Descriptive analysis in demographic information should be performed and data mining should then be applied to extract usable data from a larger set of raw data.
- 4.3 Accident causation model(s) should be used to assist in the identification of root causes and key contributory factors of the coroner's cases. A suitable accident model should be chosen for industrial accidents to systematically classify the factors involved in each case.
- 4.4 Structural equation modeling (SEM) technique, latent class analysis (LCA), confirmatory factor analysis (CFA), or other methods considered appropriate to be used in this study to analyze the classified root causes and key contributory factors of all fatal industrial accident cases. The dominant root causes can then be identified in the analysis.
- 4.5 Propose preventive measures for fatal occupational injuries according to the analytical results of the leading root causes and contributory factors so as to reduce the industrial fatality rate in HK.

5 Consultancy Agreement and Project Duration

The project is expected to be finished within [24] months counting from and inclusive of the commencement date and the minimum duration of the Study shall be [20] months counting from and inclusive of the commencement date.

6 Deliverables

- 6.1 The Contractor shall submit a proposal on the study, describing the methodology for achieving the objectives of the study, project schedule, deliverables and other necessary information. The proposed project schedule should be able to achieve the following milestones:
 - (a) Synthesize literatures to identify the current status of fatal occupational injury in HK and in global and the current accident causation model for the analysis of accidents within [3] months after the project commencement date;
 - (b) Use a qualitative approach to review and analyze the fatal industrial accident cases collected by OSHC from the Coroner's Court, where descriptive analysis and data mining should be applied within [15] months after the project commencement date;
 - (c) Adopt suitable accident causation model(s) and identify the root causes and contributory factors from coroner's cases within [18] months after the project commencement date;
 - (d) Analyze the classified root causes and key contributory factors of the fatal industrial accident cases

- through SEM, LCA, CFA or other appropriate methods within [20] months after the project commencement date;
- (e) Propose preventive measures for fatal occupational injuries based on the results within [22] months after the project commencement date;
 - (f) Submit final reports within [24] months after the project commencement date.
- 6.2 The Contractor shall submit an interim report of the study (in Chinese and English) on a basis of not less than 6 months;
- 6.3 The Contractor shall submit a final report (in Chinese and English) at the completion of the study to detail the objectives, methodology, findings and recommendation;
- 6.4 The Contractor shall present the study results and explain the details of the findings in 4 public seminars organized by the Council;
- 6.5 The Contractor shall have regular meetings with the Council's Project Monitoring Committee, at least bi-monthly, to report the progress of the consultancy and provide secretarial services until the completion of the project;
- 6.6 The quality of all deliverables including plan, interim and final reports, raw data collected in this study shall subject to Council's approval before staged payment is affected;
- 6.7 The Contractor shall complete the whole project and all deliverables within a contract period of not more than 24 calendar months, and preferably within 20 calendar months. The Contractor may propose any appropriate contract period and the final contract period will be subject to the mutual agreement of the Contractor and the Council.

7 Payment

- 7.1 In consideration of the Contractor's agreement to undertake the Study on the terms and conditions contained the Tender documents herein, the Council agrees to pay the Contractor in the following manner:
- 7.2 On awarding of the Tender Contract, the sum of equivalent to or not more than 20% of the tender sum;
- 7.3 [3] months from the commencement date upon the satisfactory completion of literature review the sum of equivalent to or not more than 15% of the tender sum;
- 7.4 [20] months from the commencement date upon the satisfactory completion of analysis on root causes and key contributory factors of the fatal industrial accidents the sum of equivalent to or not more than 20% of the tender sum; and
- 7.5 [22] months from the commencement date upon the submission of a satisfactory full report the sum of equivalent to or not more than 30% of the tender sum; and
- 7.6 [1] month from the completion of the Study and the submission of all deliverables including the final report to the Council the sum of equivalent to or not more than the balance of the tender sum [15%].
- 7.7 The Council's obligation to pay the Tender Sum under this Clause shall be subject to the punctual delivery of the reports, outputs and deliverables by the Contractor and subject to the approval of the Council in accordance with Clause 8.

7.8 The Contractor shall only use the Tender Sum for activities bona fide necessary for undertaking the Study.

8 Reports

8.1 The Contractor shall forward a written report on the progress of the Study and any finding therefrom to the Council in at least every [3] months from the commencement date. The report shall also include a summary on the expenses or fees paid from the Tender Sum. The report shall be delivered to the Council on the day next following every such three months period from the commencement date, the first of such reports to be delivered on the day immediately following the expiration of the first three months from the commencement date.

8.2 The Contractor shall submit **four copies** of the final report (*two in English and two in Chinese*), if applicable to the Council within three months after the completion of the Study. The final report should be submitted in electronic format if so required. The final report shall be in writing and include, inter alia, a full and comprehensive statement of the work done and the results accomplished and an evaluation of them.

8.3 The reports should be subject to the approval of the Council before any payment will be affected.

9 Property

9.1 Unless mutually otherwise agreed in writing by both parties (i) all rights, title and interest in all Study Results obtained or created by the Contractor during the performance of, resulting from or otherwise arising from the Study (hereinafter referred to as the "Property") and (ii) all rights to information, know-how, designs, inventions and other matters capable of being the subject of intellectual property rights, which is conceived, first reduced to practice or writing or developed in whole or in part of the course of the Study, shall remain the property of the Council. The Contractor hereby assigns the Property (including any rights under the laws of any country) to the Council and agrees to execute any further assignments and / or documents reasonably necessary to perfect such assignments, if and when requested to do so by the Council. The Council shall have the right to use, display, disseminate or release the Study Results to the public in any form that the Council considers appropriate without any prior consultation with or consent of the Contractor.

9.2 Any equipment or apparatus purchased out of the Tender Sum shall be the property of the Council and the Contractor shall deliver any of the said equipment or apparatus to the Council on demand after completion of the Study or the termination of this Tender Contract. Unless mutually agreed in writing by both parties, the Contractor shall within 7 days upon request by the Council from time to time and in any event within 30 days upon expiry or termination of this Tender Contract deliver to the Council a

set of all Study Results (including tangible embodiments of any confidential or non-confidential information).

10 Confidentiality

10.1 The Contractor agrees on behalf of itself and its employees, agents or representatives to keep strictly all the confidential information in which the Contractor receives from the Council as stipulated in the Study and shall not during the continuance of this Tender Contract or at any time after its expiration or termination without the Council's prior written approval disclose or permit the same to be disclosed to any person, firm or company save that it should not be a breach of this clause for the Contractor to disclose general items relating to the Study so far as it is bona fide necessary to do so in order to fulfill the obligations of this Tender Contract.

11 Liability

11.1 The Parties herein are not partners or joint ventures nor is the Contractor entitled to act as the agent of the Council nor shall the Council be liable in respect of any representation, act or omission or negligence of the Contractor of whatever nature. The Contractor shall ensure that in undertaking the Study, no breach or infringement of any design, copyright, patent, know-how or other intellectual property rights of others shall be committed and the Contractor shall keep the Council indemnified against all actions suits expenses and claims on account of, in respect of or arising out of any such breach or infringement of any design, copyright, patent, know-how or other intellectual property rights of others.

11.2 The Study does not carry any commitment for the continuance or further development of a project or to compensate for any inflation factor.

12 Time

12.1 Time is to be of essence in every respect of this Tender Contract.

Remarks: The Council reserves the right to modify this tender as and when deems appropriate.

13 References

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**TENDER FOR UNDERTAKING A CONSULTANCY STUDY ON IN-DEPTH ANALYSIS
ON FATAL INDUSTRIAL ACCIDENTS IN HONG KONG**

(REF: FIN/20-606)

All Invited Consultants should fill in the following tendered amount:

	<i>(Details please refer to Part III Tender Schedule)</i>	<i>Tendered Amount (HK\$)</i>	<i>Estimated Delivery Schedule</i>
1	To conduct a literature review to identify current status of fatal occupational injuries in Hong Kong and in global and the current accident causation model for the analysis of accidents.		
2	To derive an approach of accident causation model to analyze Coroner's Court cases based on literature findings.		
3	To discover the patterns of the key contributory factors of all the Coroner's Court cases collected by OSHC through data mining technique.		
4	To classify the contributory factors of fatal occupational injuries in Hong Kong and identify the key factors of industrial accidents.		
5	To recommend suggestions on the OSHC's strategies to effectively deliver its aims and objectives through promotion, education, consultancy, research and information for the local workforce to reduce the occurrence of industrial accidents in Hong Kong.		
	GRAND TOTAL		

Authorised Signature and Company Chop

Name: _____
Title: _____
Tel: _____
Date: _____

PART IV
OFFER TO BE BOUND

1. I/We the undersigned/limited company hereunder mentioned, do hereby agree to carry out the whole (or any part) of the Services mentioned in the attached Schedule which may, during the Contract period or any extension thereto be required, by or on behalf of the Council to be carried out, at the charges quoted by me/us in the said Schedule free of all other charges, subject to and in accordance with the Terms of Tender, the General Conditions of Contract and the Special Conditions of Contract.

2. I/We also certify that the particulars given by me/us below, are correct:

(a) Number of my/our/the Company's Business Registration Certificate is _____

(Copy of Company's Business Registration Certificate is attached)

(b) Date of expiry of my/our/the Company's Business Registration Certificate is _____

(c) I/We/the Company is/are covered by an Employees' Compensation Insurance Policy the particulars of which are as follows *(Copy of Employees' Compensation Insurance Policy is attached)*:

Policy No. _____

Name of Insurance Company _____

Period covered by the Policy is from _____

Brief particulars of the cover provided and any special conditions are as follows:

3. I am the Secretary/Managing Director of the Limited Company hereinafter mentioned and duly authorized to bind the said Company by my signature. I am a partner/We are partners in the firm hereinafter mentioned and duly authorized to bind the said firm and the partners therein for the time being.

4. The tender is submitted with the authority and on behalf of _____

Company Limited whose registered office is situated at _____ Hong Kong.

- or -

This tender is submitted on behalf of myself/ ourselves and the firm known as _____ of

Hong Kong and other partners hereof namely (state names and residential addresses of all other partners):

5. In the event of any queries relating to our offer please contact _____
_____ Tel. No. _____

Witness to signature:

Name _____

Signature(s):

Address _____

Occupation _____

Dated this _____ date of _____ 20 _____

- Note : (i) All the particulars required above must be completed.
(ii) Strike out clearly alternatives which are not applicable.

PART V
MEMORANDUM OF ACCEPTANCE

On behalf of the Occupational Safety & Health Council I _____
(name and position of officer)

accept your offer upon the terms of this Contract for the following item(s):

Dated this _____ day of _____ 20 _____

Signed by the said:

Ref : FIN/20-606-202395448

To : Occupational Safety and Health Council
Attn : Ms Ivory Pang (Tel : 2116 5602 / Email: procurement@oshc.org.hk)

**Briefing Session for “Invitation to Tender for Undertaking a Consultancy Study
on In-depth Analysis on Fatal Industrial Accidents in Hong Kong”**

The following representatives of our Institution will attend the captioned briefing session scheduled on **1st March 2023 (Wednesday) 3:00pm** at Room F, 18/F Training Centre, China United Centre, North Point, Hong Kong.

No.	Name	Position in the Institution	Contact Mobile Number

Signature : _____

Name of Person to reply tender : _____

Position in the Institution : _____

Contact Tel No : _____

Name of Institution : _____

Date : _____

(Email: procurement@oshc.org.hk)

Reply Slip

To : General Manager
Occupational Safety and Health Council

With reference to your tender invitation (ref : FIN/20-606-202395448 and closing date before noon on 22 March 2023), I regret that I am unable to quote due to the following reason :-

*** Reasons**

- Requirement is out of our range of supply / services
 - Required tender specification cannot be met
 - Delivery schedule cannot be met
 - Tender closing date cannot be met
 - Others (please specify) _____
-

Signature : _____

Contact Person : _____

Position in the Institution : _____

Name of Institution : _____

Contact Telephone Number : _____

Institution Chop : _____

Date : _____

* Please tick against the box where applicable

