

Annual Report on Accident Statistics and Analyses for Public Works Contracts 2024

This report summarizes the accident statistics and analysis of the accidents occurred in public works contracts in 2024.

Accident Statistics (Appendices A to F)

2. Some key accident statistics and their trends are summarized below –

	Key Statistical Data	Remarks
(a)	Accident rate (fatal + non-fatal)	The accident rates for 2023 and 2024 were 0.18 and 0.16 accidents per 100 000 man-hours worked (or equivalent to 6.4 and 5.7 accidents per 1 000 workers per year respectively). A decrease of more than 10% was observed.
(b)	No. of reportable accidents (fatal + non-fatal)	The total numbers of reportable accidents for 2023 and 2024 were 238 and 230 respectively. A decrease of around 4% was observed. The numbers of man-hours worked for 2023 and 2024 were 132,582,599.3 and 146,202,148.7 respectively. An increase of around 11% was observed.
(c)	Fatal accidents	Two fatal reportable accidents occurred in public works contracts in 2024. A total of 14 fatalities in various industrial accidents were recorded in the whole construction industry in 2024.

3. The brief account of two fatal accidents happened under a public works contract is given below –

Date of Accident	Accident Nature	Brief Description of Accident
22 April 2024	Exposure to or contact with harmful substance	<p>A gang of workers was assigned to conduct pipe cleansing work by using high pressure water jetting outside a sewage manhole. In the course of work, two workers were found unconscious inside the manhole. They were rescued by the Fire Services and were rushed to the hospital. The two workers were certified dead in the hospital later on the same day. In addition, another two workers were admitted to the hospital for further treatment.</p> <p>The accident happened under DSD Contract No. DC/2023/04 – Drainage Maintenance and Construction in Mainland South Districts (2023-2027).</p>

4. The accident rates of Works Departments in 2024 are summarized below –

Works Departments	No. of Fatal Accident	Accident Rates (Fatal + Non-fatal)	
		No. of Accidents per 100 000 man-hours worked	No. of Accidents per 1 000 workers per year
ArchSD	0	0.23	8.3
CEDD	0	0.09	3.4
DSD	2	0.13	4.8
EMSD	0	0.10	3.6
HyD	0	0.21	7.7
WSD	0	0.03	1.2
Overall	2	0.16	5.7

Note: The limit set by DEVB with effect from 1 February 2011 and until 31 December 2024 is 0.60 accidents per 100 000 man-hours worked (or equivalent to 22 accidents per 1 000 workers per year). The limit has been lowered to 0.3 accidents per 100 000 man-hours worked (or equivalent to 11 accidents per 1 000 workers per year) since 1 January 2025.

5. The severity rates (in terms of number of man-days lost per 100,000 man-hours worked) for 2023 and 2024 were 46.5 and 39.9 respectively. A decrease of 14% was observed.

Accident Analyses

6. The accident analyses for the following aspects are given in **Appendices G** to **O** of this Report respectively. Key findings are summarized below.

(a) Types of Contracts (**Appendix G**)

The three types of contracts having the highest accident rates are listed below –

Types of Contracts	Accident Rate (No. of accident per 1 000 workers per year)			
	2022	2023	2024	Changes between 2023 & 2024
Port Work	3.5	2.0	7.9	5.9 (295.0%)
Landscape	7.2	6.5	9.1	2.6 (40.0%)
Geotechnical Works	6.3	6.2	7.9	1.7 (27.4%)

The accident rate under “Port Works” contracts in 2024 increased substantially as compared with 2023. Works Departments overseeing these contracts should step up the supervision to these works contracts in every aspect to prevent further deterioration of safety performance. Project teams, resident site staff and contractors are also appealed to actively attend to and participate in site safety matters of these contracts.

(b) Types of Accidents (Appendix H)

The three most common types of accidents are listed below –

Types of Accidents	No. of Accidents (% of total no. of accidents)			
	2022	2023	2024	Changes between 2023 & 2024
Slip, Trip or Fall On Same Level	54 (27.3%)	60 (25.2%)	60 (26.1%)	0 (0%)
Injured Whilst Lifting or Carrying/ Manual Lifting/ Manual Handling/ Handling Without Machinery	25 (12.6%)	34 (14.3%)	29 (12.6%)	-5 (-14.7%)
Struck By Moving or Falling Object	31 (15.7%)	26 (10.9%)	27 (11.7%)	1 (3.8%)

Accidents related to “Slip, Trip or Fall On Same Level”, “Injured Whilst Lifting or Carrying/ Manual Lifting/ Manual Handling/ Handling Without Machinery” and “Struck By Moving or Falling Object” remain the top three types accidents in the past three years, which account for more than 50% of the total number of accidents. However, the accidents were not related to work monitored by Smart Site Safety System. Works Departments are requested to devise effective and targeted measures to further reduce the number of accidents, in particular for the above top three types of accidents. Works Departments should also explore with contractors the possibility of mitigating the safety hazards by adoption of robotics, advanced construction methods and innovative technologies.

(c) Trades of Workers (Appendix I)

The three most common trades involved in the accidents are listed below –

Trades of Workers	No. of Accidents (% of total no. of accidents)			
	2022	2023	2024	Changes between 2023 & 2024
Labourer	88 (44.4%)	101 (42.4%)	104 (45.2%)	3 (2.9%)
Carpenter (formworker)	9 (4.6%)	28 (11.8%)	28 (12.2%)	0 (0%)
Building Services/ E&M Worker	12 (6.1%)	18 (7.6%)	10 (4.4%)	-8 (-44.4%)

“Labourer” remained the top-ranked trade commonly involved in the accidents since 2018. More safety briefings or toolbox talks should be provided to workers, in particular the aforementioned trades of workers, for enhancing their safety awareness. In addition, for those skilled workers, contractors should arrange those workers to attend the relevant Safety Training for Construction Workers of Specified Trade (“Silver Card Course”) pursuant to the provisions in public works contracts. As noted in Appendix I, some of the accidents involved management or supervisory staff. Management staff and supervisory staff should be arranged to timely attend the prescribed safety training and the respective refresher courses as specified in public works contracts to enhance their safety knowledge and awareness.

(d) Natures of Injury (Appendix J)

The five most common natures of injury are listed below –

Natures of Injury	No. of Accidents (% of total no. of accidents)			
	2022	2023	2024	Changes between 2023 & 2024
Fracture	75 (31.3%)	74 (26.9%)	91 (34.2%)	17 (23.0%)
Contusion & Bruise	71 (29.6%)	62 (22.6%)	47 (17.7%)	-15 (-24.2%)
Laceration and Cut	28 (11.7%)	33 (12.0%)	38 (14.3%)	5 (15.2%)
Sprain/ Strain/ Twist	23 (9.6%)	35 (12.7%)	24 (9.0%)	-11 (-31.4%)
Crushing	6 (2.5%)	17 (6.2%)	16 (6.0%)	-1 (-5.9%)

“Fracture”, “Contusion & Bruise”, “Laceration and Cut”, “Sprain/ Strain/ Twist” and “Crushing” were the most five common natures of injury in the past years, accounting for more than 80% of the total number of accidents. Work procedures and system of work should be formulated and safe working environment, suitable tools and machinery should be provided for carrying out the works, taking cognizance of the above findings.

(e) Parts of Body Injured (Appendix K)

The three most common body parts injured in the accidents are listed below –

Parts of Body Injured	No. of Accidents (% of total no. of accidents)			
	2022	2023	2024	Changes between 2023 & 2024
Finger	40 (16.7%)	64 (23.3%)	65 (24.4%)	1 (1.6%)
Back	30 (12.5%)	31 (11.3%)	23 (8.7%)	-8 (-25.8%)
Ankle	12 (5.0%)	15 (5.5%)	18 (6.8%)	3 (20%)

“Finger” and “Back” remained the most two common part of body injured for the accidents in the past years. Proper personal protective equipment and sufficient training and instruction should be provided to workers to ensure their safety at work.

(f) Agents Involved (Appendix L)

The four most common agents involved in the accidents are listed below –

Agents Involved	No. of Accidents (% of total no. of accidents)			
	2022	2023	2024	Changes between 2023 & 2024
Floor, Ground, Stairs or Any Working Surface	44 (21.6%)	45 (17.5%)	47 (19.8%)	2 (4.4%)
Material / Product Being Handled or Stored	34 (16.7%)	40 (15.6%)	38 (16.0%)	-2 (-5%)
Portable Power or Hand Tools	15 (7.4%)	18 (7.0%)	25 (10.6%)	7 (38.9%)
Ladder or Working At Height	5 (2.5%)	6 (2.3%)	11 (4.6%)	5 (83.3%)

“Floor, Ground, Stairs or Any Working Surface” and “Material / Product Being Handled or Stored” were the two most common types of agents involved in the accidents in past years. In addition, there was a substantial increase in accidents involving “Ladder or Working At Height”. Extra efforts should be spent on improving this area.

(g) Unsafe Actions (Appendix M)

The three most common unsafe actions leading to accidents are listed below –

Unsafe Actions	No. of Accidents (% of total no. of accidents)			
	2022	2023	2024	Changes between 2023 & 2024
Lapse of Attention	67 (30.5%)	86 (30.9%)	89 (33.6%)	3 (3.5%)
Adopting Unsafe Position or Posture	32 (14.6%)	44 (15.8%)	32 (12.1%)	-12 (-27.3%)
Failure To Secure Objects	15 (6.8%)	9 (3.2%)	17 (6.4%)	8 (88.9%)

“Lapse of Attention” and “Adopting Unsafe Position or Posture” were the two most common type of unsafe actions in past years. Contractors are requested to provide sufficient information and instructions to workers so that they would stay vigilant in the work place. In addition, there was a substantial increase in unsafe actions involving “Failure To Secure Objects”. Extra efforts should be spent on improving this area.

(h) Unsafe Conditions (Appendix N)

The three most common unsafe conditions involved in the accidents are listed below –

Unsafe Conditions	No. of Accidents (% of total no. of accidents)			
	2022	2023	2024	Changes between 2023 & 2024
Unsafe Process or Job Methods	23 (10.2%)	34 (12.6%)	31 (11.7%)	-3 (-8.8%)
Improper Procedure	27 (12.0%)	33 (12.2%)	30 (11.3%)	-3 (-9.1%)
Poor Housekeeping	17 (7.6%)	16 (5.9%)	20 (7.6%)	4 (25.0%)

The above three types of unsafe conditions accounted for about 30% of the total number of accidents, which showed that the unsafe conditions involved in accidents varied substantially. Works Departments should closely monitor contractors' performance and take prompt actions to rectify any unsafe actions or conditions observed on site. Routine safety inspections by the project teams or site supervisory staff and surprise audits by the Departmental Safety and Environmental Advisory Units or independent teams would be the possible actions to identify the malpractice and deficiencies in the working environment and safety management system. In addition, resident site staff and contractors should actively carry out site inspections with a view to identifying potential safety hazards/malpractices and implement enhancement measures as necessary. Task-specific safe working procedures, taking cognizance of the actual needs and circumstances of the site, should be formulated and duly implemented. Reviews of these task-specific safe working procedures should also be carried out regularly.

(i) Personal Factors (Appendix O)

The distributions of accidents arising from personal factors are given below –

Personal Factors	No. of Accidents (% of total no. of accidents)			
	2022	2023	2024	Changes between 2022 & 2023
Carelessness / Not Concentrate	130 (58.3%)	144 (50.5%)	161 (61.2%)	17 (11.8%)
Incorrect Attitude / Motive	24 (10.8%)	33 (11.6%)	27 (10.3%)	-6 (-18.2%)
Lack Of Knowledge or Skill	21 (9.4%)	32 (11.2%)	24 (9.1%)	-8 (-25.0%)

The number of accidents associated with “Carelessness / Not Concentrate” was the highest in past years. More than half of the total number of accidents were arising from this personal factor. Contractors should strengthen the workers’ safety awareness and attitude through training including briefings and toolbox talks.

7. To maintain the continuous improvement in site safety, Works Departments are recommended to pay particular attention to the following aspects –

- (i) ensuring Smart Site Safety System (4S) is duly implemented on site. Regular review on adequacy and comprehensiveness of 4S should be carried out (including, but not limited to having reviews during monthly Site Safety Management Committee meetings);
- (ii) promoting workers’ safety awareness in lifting or carrying, against fall from height, to prevent struck by falling or moving objects, and to prevent slip, trip and fall on same level;
- (iii) improving site cleanliness and tidiness;
- (iv) providing sufficient instruction, training and supervision to workers to ensure their safety at work in particular for working at height, lifting and confined spaces work;
- (v) providing suitable fall arresting equipment e.g. safety harness, fall arrester and independent lifeline connected to a secured anchorage to workers who are at risk of falling from height;
- (vi) maintaining an effective monitoring system to ensure workers and supervisory staff (both RSS and in-house staff) make full and proper use of personal protective equipment and safety equipment;

- (vii) enforcing the requirement to conduct risk assessment, and/or permit-to-work system, for all high-risk activities before commencement of the work;
- (viii) maintaining a safe system of work including proper site layout and work plan to segregate workers from construction plant and vehicles;
- (ix) tightening up the control on the use of ladders for work purpose (including straight ladders, step ladders, A-ladders, folding ladders or other ladders alike) on public works construction sites. Ladders should normally be restricted for ascending and descending purposes only;
- (x) providing adequate safety training, briefings or toolbox talks to workers, especially sharing the lessons learnt in the serious incidents, for preventing recurrence and raising their safety awareness and working attitude;
- (xi) arranging management staff and site supervisory staff of the project teams, resident site staff and contractors to timely attend the prescribed safety training and the respective refresher courses as appropriate to enhance their safety knowledge and awareness;
- (xii) providing adequate supervision, surprise check and daily review to the construction activities, especially the high-risk construction activities, to ensure the works are carried out in accordance with the approved method statement and statutory requirements;
- (xiii) providing sufficient information and instruction to workers and paying particular attention to the workers' misbehaviours during safety inspection and supervision on site. Any unsafe actions or posture observed on site should be stopped immediately; and
- (xiv) checking of completeness of Independent Checking Engineer's design certificates and as-built certificates for the detailed design and method statements of temporary works before loading, and statutory form(s) for temporary works/scaffolding/working platform.

8. Apart from the analyses given in this report, Works Departments are recommended to carry out further detailed analyses of the accidents under their purview, with a view to developing targeted safety measures and programme for further improvement.

Works Branch
Development Bureau
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Attachments:

<u>Appendix</u>	<u>Title</u>
A	Accident Rates for Public Works Contracts and the Construction Industry from 2015 to 2024
B	Chart of Yearly Accident Rates for Public Works Contracts and the Construction Industry from 2015 to 2024
C	Chart of Monthly Average Accident Rates for Public Works Contracts from January 2015 to December 2024
D	Number of Accidents for Public Works Contracts with Breakdown by Works Departments from 2015 to 2024
E	Accident Rates for Public Works Contracts with Breakdown by Works Departments from 2015 to 2024
F	Severity for Public Works Contracts with Breakdown by Works Departments from 2020 to 2024
G	Accident Rates for Public Works Contracts from 2015 to 2024 Analyzed by Types of Contracts
H	No. of Accidents for Public Works Contracts from 2020 to 2024 Analyzed by Types of Accident
I	No. of Accidents for Public Works Contracts from 2020 to 2024 Analyzed by Trades of Workers
J	No. of Accidents for Public Works Contracts from 2020 to 2024 Analyzed by Natures of Injury
K	No. of Accidents for Public Works Contracts from 2020 to 2024 Analyzed by Parts of Body Injured in Accidents
L	No. of Accidents for Public Works Contracts from 2020 to 2024 Analyzed by Agents Involved in Accidents
M	No. of Accidents for Public Works Contracts from 2020 to 2024 Analyzed by Unsafe Actions Involved in Accidents
N	No. of Accidents for Public Works Contracts from 2020 to 2024 Analyzed by Unsafe Conditions Involved in Accidents
O	No. of Accidents for Public Works Contracts from 2020 to 2024 Analyzed by Personal Factors Involved in Accidents