

**Accident Rates for Public Works Contracts and the Construction Industry from 2008 to 2017**

Year <sup>1</sup>	Public Works Contracts			Accident Rates					
				Fatal Accidents			Reportable Accidents		
	No. of Fatalities	No. of Non-fatal Reportable Accidents <sup>2</sup>	No. of Man-hours Worked for <sup>3</sup>	Public Works Contracts		Construction Industry	Public Works Contracts		Construction Industry
				a <sup>4</sup>	b <sup>5</sup>	c <sup>6</sup>	a <sup>4</sup>	b <sup>5</sup>	c <sup>6</sup>
2008	1	241	69,423,891	0.001	0.05	0.40	0.35	12.5	61.4
2009	4	275	85,391,537	0.004	0.13	0.38	0.32	11.6	54.6
2010	0	278	100,391,978	0.000	0.00	0.16	0.28	9.8	52.1
2011	7	340	111,847,295	0.006	0.22	0.37	0.30	10.9	49.7
2012	6	289	109,106,626	0.005	0.20	0.34	0.27	9.7	44.3
2013	5	206	103,838,302	0.005	0.17	0.28	0.20	7.3	40.8
2014	5	218	105,614,895	0.005	0.17	0.27	0.21	7.6	41.9
2015	4	241	106,992,896	0.004	0.13	0.20	0.23	8.2	39.1
2016	4	232	108,768,078	0.004	0.13	0.11	0.22	7.8	34.5
2017	6	272	124,058,977	0.005	0.17	0.19	0.22	8.1	32.9

<sup>1</sup> The figures for 2017 are captured as at 31 May 2018 and figures for previous years are based on the annual report for 2016.

<sup>2</sup> A “non-fatal reportable accident” means industrial accident, which results in any injury that incapacity the worker for more than 3 days.

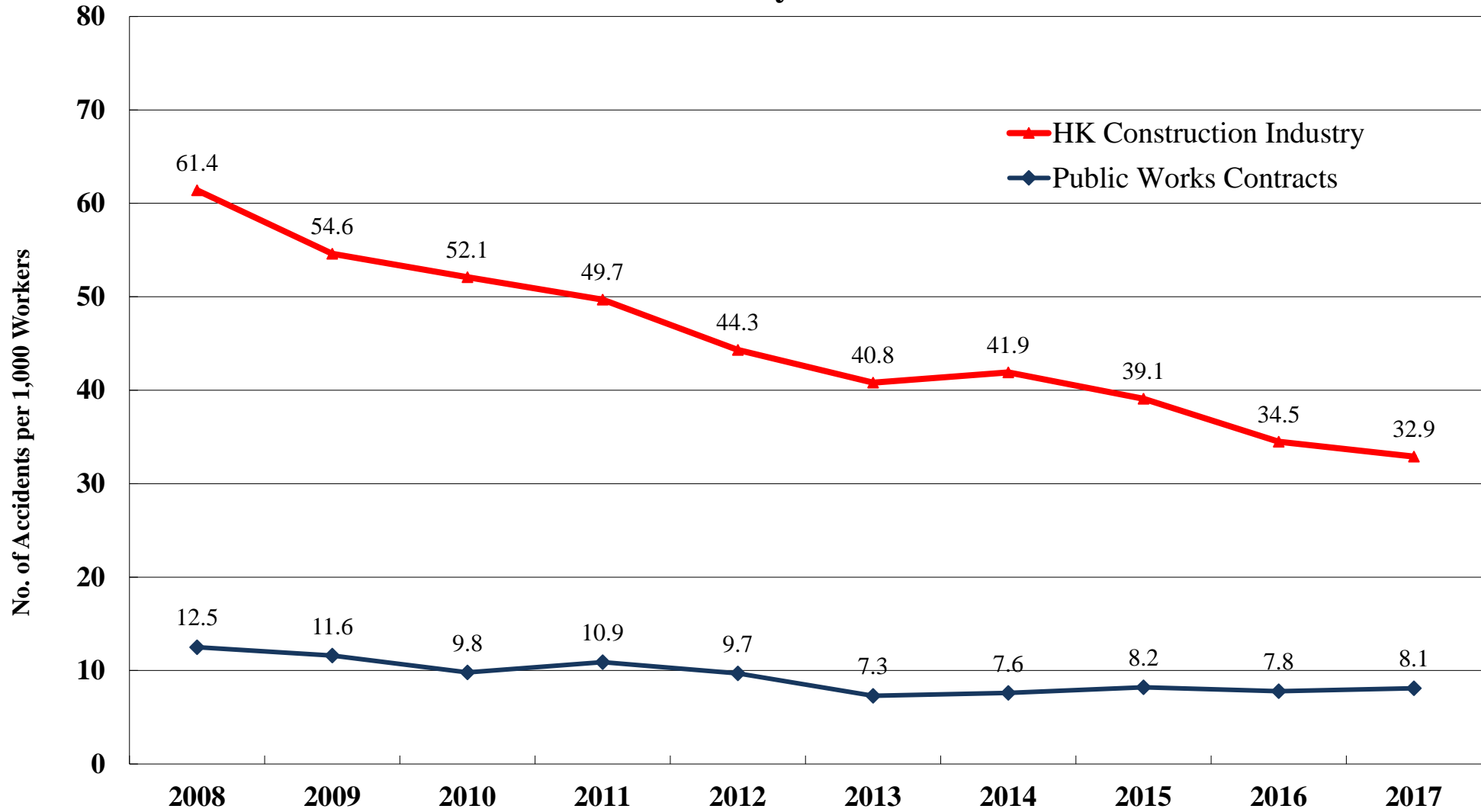
<sup>3</sup> The "man-hours worked" means the man-hours worked by all persons employed on the works whether in the employ of main contractor and his sub-contractors who are exposed to the risks on the sites, including supervisory staff, site agent and engineer(s), workers, watchman etc.

<sup>4</sup> The accident rates for columns marked with (a) are given in term of no. of accidents per 100,000 man-hours worked.

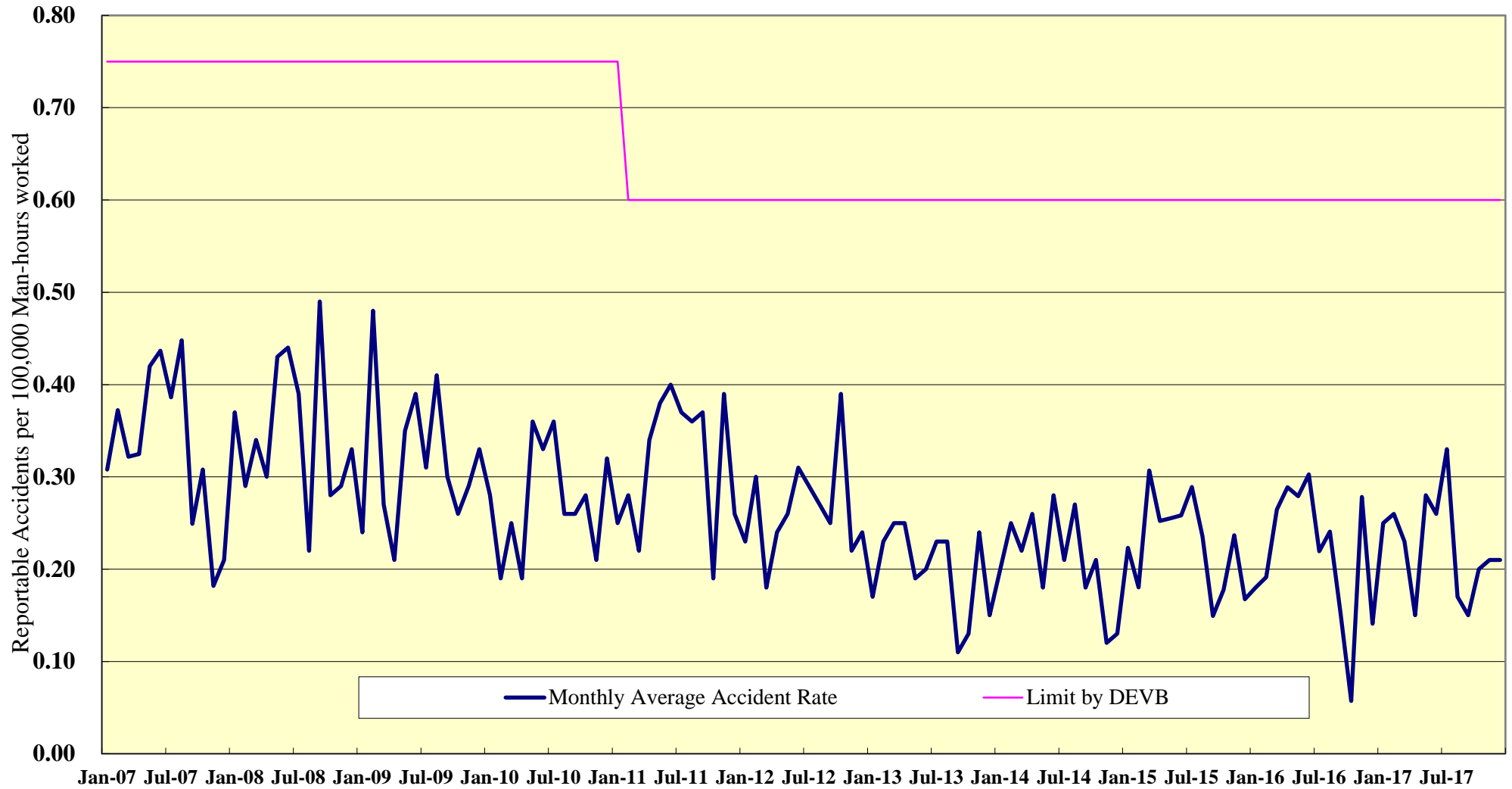
<sup>5</sup> The accident rates for columns marked with (b) are given in term of no. of accidents per 1,000 workers per year based on a conversion of 1.67 accidents per 100,000 man-hours worked equivalent to 60 accidents per 1,000 workers per year.

<sup>6</sup> The accident rates for columns marked with (c) are given in term of no. of accidents per 1,000 workers per year based on the statistics of the Labour Department.

**Chart of Yearly Accident Rates for Public Works Contracts and the Construction Industry from 2008 to 2017**



**Chart of Monthly Average Accident Rates  
for Public Works Contracts from January 2008 to December 2017**



Period	1/02 - 12/02	1/03 - 3/04	4/04 - 3/05	4/05 - 1/11	since 2/11
Limit by DEVB	1.4	1.25	1.0	0.75	0.6

**Number of Accidents for Public Works Contracts with Breakdown by Works Departments from 2008 to 2017**

**(A) No. of Fatalities**

<b>Department</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
ArchSD	1	2	0	2	4	0	1	0	2	1
CEDD	0	1	0	2	1	0	0	0	0	0
DSD	0	0	0	1	0	2	0	1	0	1
EMSD	0	0	0	0	0	0	0	0	0	0
HyD	0	0	0	1	1	1	4	3	2	2
WSD	0	1	0	1	0	2	0	0	0	2
<b>Total</b>	<b>1</b>	<b>4</b>	<b>0</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>5</b>	<b>4</b>	<b>4</b>	<b>6</b>

**(B) No. of Non-fatal accidents**

<b>Department</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
ArchSD	91	100	117	177	110	66	75	93	68	93
CEDD	31	33	32	25	25	22	29	29	27	31
DSD	25	45	49	60	46	28	20	19	9	12
EMSD	14	17	13	12	20	14	4	8	9	10
HyD	43	40	30	31	52	45	66	69	100	110
WSD	37	40	37	35	36	31	24	23	19	16
<b>Total</b>	<b>241</b>	<b>275</b>	<b>278</b>	<b>340</b>	<b>289</b>	<b>206</b>	<b>218</b>	<b>241</b>	<b>232</b>	<b>272</b>

**Accident Rates for Public Works Contracts**  
**with Breakdown by Works Departments from 2008 to 2017**

Department		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
ArchSD	a <sup>1</sup>	0.48	0.36	0.33	0.46	0.36	0.26	0.30	0.32	0.26	0.28
	b <sup>2</sup>	17.30	13.00	11.99	16.58	13.04	9.4	10.70	11.58	9.32	10.09
CEDD	a <sup>1</sup>	0.23	0.23	0.20	0.16	0.17	0.16	0.19	0.17	0.13	0.13
	b <sup>2</sup>	8.10	8.30	7.11	5.72	6.21	5.9	6.71	5.99	4.60	4.54
DSD	a <sup>1</sup>	0.26	0.37	0.33	0.33	0.24	0.17	0.14	0.19	0.11	0.18
	b <sup>2</sup>	9.40	13.10	11.75	11.93	8.64	6.3	5.02	6.96	3.93	6.40
EMSD	a <sup>1</sup>	0.49	0.40	0.31	0.21	0.32	0.22	0.06	0.10	0.13	0.16
	b <sup>2</sup>	17.50	14.50	11.12	7.54	11.56	7.8	2.07	3.69	4.62	5.70
HyD	a <sup>1</sup>	0.33	0.27	0.19	0.16	0.23	0.17	0.24	0.23	0.30	0.26
	b <sup>2</sup>	11.80	9.70	6.86	5.69	8.23	6.1	8.55	8.38	10.60	9.44
WSD	a <sup>1</sup>	0.33	0.33	0.26	0.24	0.25	0.23	0.17	0.20	0.17	0.18
	b <sup>2</sup>	11.80	12.00	9.33	8.70	9.11	8.2	6.22	7.03	6.26	6.58
All Dept.	a <sup>1</sup>	0.35	0.32	0.28	0.30	0.27	0.20	0.21	0.23	0.22	0.22
	b <sup>2</sup>	12.5	11.6	9.8	10.9	9.7	7.3	7.6	8.2	7.80	8.05
HA <sup>3,4</sup>	b <sup>3,4</sup>	16.1/14.6	9.4/12.3	9.9/7.4	9.0/7.3	7.4/4.8	7.3/4.1	6.4/2.2	9.2/1.5	6.8/1.5	6.9/4.2
Construction Industry <sup>3</sup>	b <sup>3</sup>	61.4	54.6	52.1	49.7	44.3	40.8	41.9	39.1	34.5	32.9

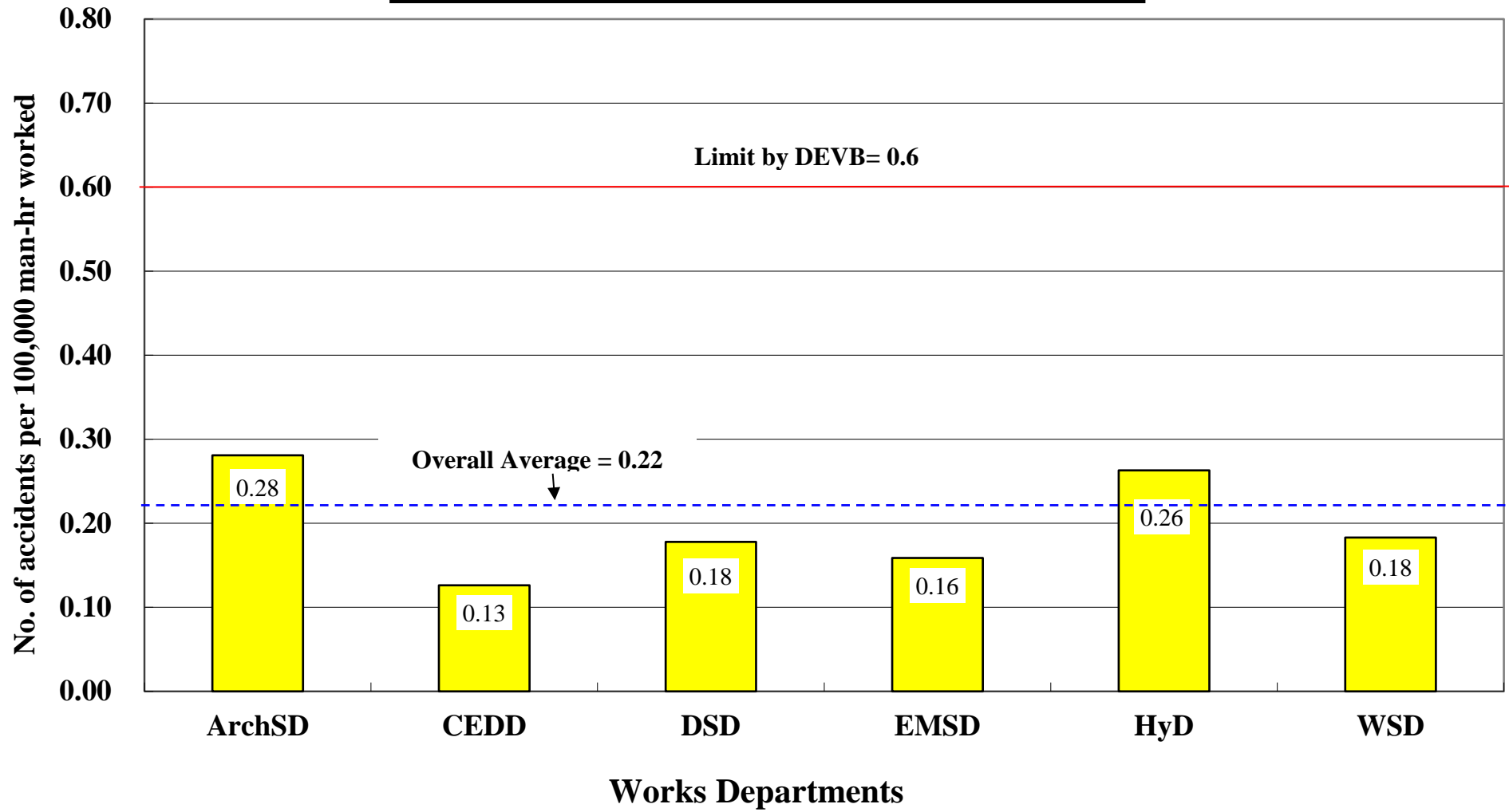
<sup>1</sup> The accident rates for columns marked with (a) are given in term of no. of accidents per 100,000 man-hours worked.

<sup>2</sup> The accident rates for columns marked with (b) are given in term of no. of accidents per 1,000 workers per year based on a conversion of 1.67 accidents per 100,000 man-hours worked equivalent to 60 accidents per 1,000 workers per year.

<sup>3</sup> The accident rates for Housing Authority (HA) and the construction industry are given in terms of no. of accidents per 1,000 workers per year.

<sup>4</sup> Housing Authority has two accident rates figures (New Works / Maintenance Works).

**Accident Rates for Public Works Contracts for 2017**



**Severity for Public Works Contracts with Breakdown by Works Department from 2013 to 2017**

**No. of Man-Day Lost per 100,000 Man-Hours Worked**

Department	2013	2014	2015	2016	2017
ArchSD	43.3	37.9	65.3	74.0	59.0
CEDD	46.0	41.0	52.4	45.2	35.8
DSD	42.9	40.6	46.7	33.2	33.6
EMSD	54.3	22.4	11.8	11.7	7.4
HyD	45.0	47.4	52.4	49.9	52.4
WSD	55.2	45.0	14.7	8.4	32.1
All Departments	46.4	41.3	48.2	47.1	45.9

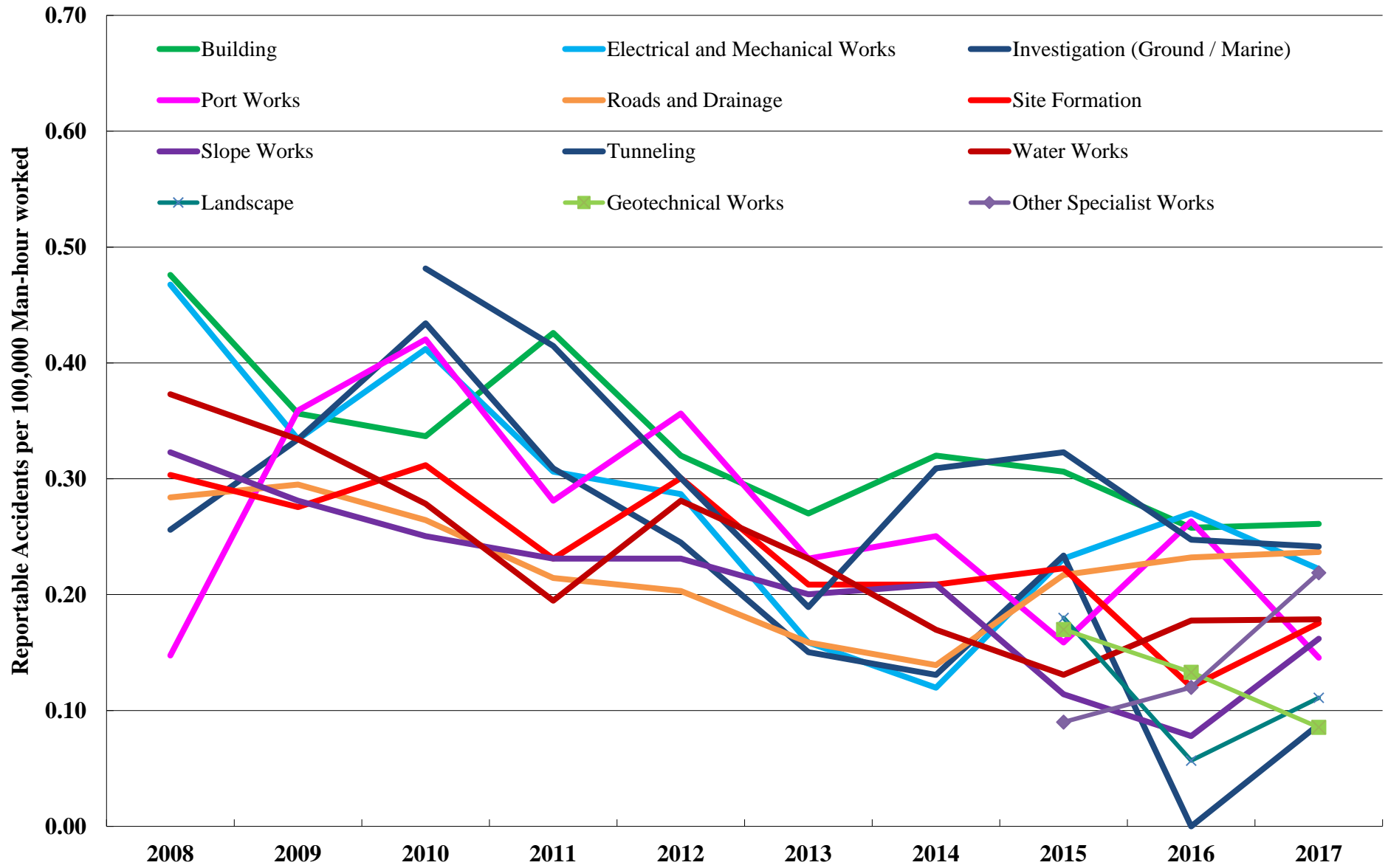
**Accident Rates for Public Works Contracts from 2008 to 2017**  
**Analyzed by Types of Contracts**

Types of Contracts	Accident Rates (in no. of accidents per 1,000 workers per year)										
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Change <sup>1</sup>
Building	17.1	12.8	12.1	15.3	11.5	9.7	11.5	11.0	9.3	9.4	1%
Tunneling	-	-	17.3	14.9	10.8	6.8	11.1	11.6	8.9	8.7	-2%
Roads and Drainage	10.2	10.6	9.5	7.7	7.3	5.7	5.0	7.8	8.3	8.5	2%
Electrical and Mechanical Works	16.8	12	14.8	11	10.3	5.7	4.3	8.3	9.7	8.0	-18%
Other Specialist Works	-	-	-	-	-	-	-	3.2	4.3	7.9	84%
Water Works	13.4	12	10	7	10.1	8.3	6.1	4.7	6.4	6.4	0%
Site Formation	10.9	9.9	11.2	8.3	10.8	7.5	7.5	8.0	4.3	6.3	47%
Slope Works	11.6	10.1	9.0	8.3	8.3	7.2	7.5	4.1	2.8	5.8	107%
Port Works	5.3	12.9	15.1	10.1	12.8	8.3	9.0	5.7	9.5	5.2	-45%
Landscape	-	-	-	-	-	-	-	6.1	2.0	4.0	100%
Investigation (Ground / Marine)	9.2	12	15.6	11.1	8.8	5.4	4.7	8.4	0.0	3.2	320%
Geotechnical Works	-	-	-	-	-	-	-	5.9	4.8	3.1	-35%
<b>All Contracts</b>	<b>12.5</b>	<b>11.6</b>	<b>9.8</b>	<b>10.9</b>	<b>9.7</b>	<b>7.3</b>	<b>7.6</b>	<b>8.2</b>	<b>7.9</b>	<b>7.8</b>	<b>-1%</b>

1 The "Change" is the percentage difference in accident rates between 2016 and 2017.



**Accident Rates for Public Works Contracts  
Analyzed by Types of Contracts from 2008 to 2017**



**No. of Accidents for Public Works Contracts from 2013 to 2017**  
**Analyzed by Types of Accidents**

Types of Accidents	2013		2014		2015		2016		2017		
	No.	%	No.	%	No.	%	No.	%	No.	%	Change <sup>1</sup>
Slip, Trip or Fall On Same Level	43	20.4%	42	18.8%	48	19.0%	46	19.5%	55	19.8%	9
Injured Whilst Lifting or Carrying/ Manual Lifting/ Manual Handling/ Handling Without Machinery	30	14.2%	38	17.0%	39	15.5%	33	14.0%	41	14.7%	8
Fall of Person From Height	31	14.7%	26	11.7%	30	11.9%	28	11.9%	28	10.1%	0
Trapped In or Between Objects	17	8.1%	14	6.3%	15	6.0%	17	7.2%	27	9.7%	10
Struck By Moving or Falling Object	28	13.3%	18	8.1%	30	11.9%	24	10.2%	19	6.8%	-5
Hand Tool Accident	8	3.8%	12	5.4%	8	3.2%	15	6.4%	16	5.8%	1
Striking Against Fixed or Stationary Object	10	4.7%	13	5.8%	16	6.3%	14	5.9%	13	4.7%	-1
Trapped By Collapsing or Overturning Object	-	-	-	-	0	0.0%	2	0.8%	8	2.9%	6
Contact With Moving Machinery or Object Being Machined	9	4.3%	7	3.1%	5	2.0%	7	3.0%	7	2.5%	0
Striking Against Moving Object	9	4.3%	9	4.0%	5	2.0%	11	4.7%	5	1.8%	-6
Dust/ Foreign Particle In Eye	-	-	-	-	5	2.0%	3	1.3%	5	1.8%	2
Exposure To Fire/ Burning	-	-	-	-	2	0.8%	1	0.4%	4	1.4%	3
Struck By Moving Vehicle/ Traffic Accident	-	-	-	-	1	0.4%	2	0.8%	2	0.7%	0
Drowning or Asphyxiation	-	-	-	-	0	0.0%	1	0.4%	2	0.7%	1
Stepping On Object/ Nail	-	-	-	-	3	1.2%	0	0.0%	2	0.7%	2
Machinery Operation Accident	-	-	-	-	1	0.4%	2	0.8%	1	0.4%	-1
Exposure To Explosion	-	-	-	-	-	-	2	0.8%	0	0.0%	-2
Contact With Electricity or Electric Discharge	0	0.0%	0	0.0%	2	0.8%	2	0.8%	0	0.0%	-2
Crushing/ Burial	3	1.4%	2	0.9%	2	0.8%	2	0.8%	0	0.0%	-2
Exposure To or Contact With Harmful Substance (e.g. poison gas, toxic or corrosive substance)	-	-	-	-	2	0.8%	1	0.4%	0	0.0%	-1
<b>Sub-total</b>	<b>188</b>	<b>89.1%</b>	<b>181</b>	<b>81.2%</b>	<b>214</b>	<b>84.9%</b>	<b>213</b>	<b>90.3%</b>	<b>235</b>	<b>84.5%</b>	<b>22</b>
<b>Other Types</b>	<b>23</b>	<b>10.9%</b>	<b>42</b>	<b>18.8%</b>	<b>38</b>	<b>15.1%</b>	<b>23</b>	<b>9.7%</b>	<b>43</b>	<b>15.5%</b>	<b>20</b>
<b>Total number of accidents</b>	<b>211</b>	<b>-----</b>	<b>223</b>	<b>----</b>	<b>252<sup>2</sup></b>	<b>-----</b>	<b>236</b>	<b>-----</b>	<b>278</b>	<b>-----</b>	<b>42</b>

1 "Change" means the difference in no. of accidents between 2016 and 2017

2 The total no. of accident in 2015 was 245. There are 7 more records because multiple selection of "Types of Accidents" was allowed in the old PCSES. After the launch of the new PCSES in Jun 2015, this selection was limited to 1 option only.

**No. of Accidents for Public Works Contracts from 2013 to 2017**  
**Analyzed by Trades of Workers**

Trades of Workers	2013		2014		2015		2016		2017		Change <sup>1</sup>
	No.	%	No.	%	No.	%	No.	%	No.	%	
Labourer	126	59.7%	113	50.7%	138	56.3%	119	50.4%	148	53.2%	29
Carpenter (formworker)	5	2.4%	12	5.4%	9	3.7%	14	5.9%	17	6.1%	3
Bar Bender and Fixer	3	1.4%	10	4.5%	11	4.5%	6	2.5%	15	5.4%	9
Building Services/ E&M Worker	13	6.2%	4	1.8%	9	3.7%	14	5.9%	12	4.3%	-2
Metal Scaffolder	-	-	-	-	1	0.4%	6	2.5%	12	4.3%	6
Rigger/ Metal Formwork Erector	4	1.9%	8	3.6%	11	4.5%	8	3.4%	11	4.0%	3
Metal Worker	4	1.9%	0	0.0%	1	0.4%	0	0.0%	5	1.8%	5
General Welder	-	-	-	-	4	1.6%	5	2.1%	4	1.4%	-1
Truck and Other Vehicle Driver	-	-	-	-	1	0.4%	4	1.7%	4	1.4%	0
Concretor	-	-	-	-	0	0.0%	3	1.3%	4	1.4%	1
Construction/ Mechanical Plant Mechanic or Fitter	1	0.5%	0	0.0%	3	1.2%	3	1.3%	4	1.4%	1
Excavator	-	-	-	-	0	0.0%	2	0.8%	4	1.4%	2
Manager/ Site Engineer/ General Foreman	-	-	-	-	6	2.4%	4	1.7%	3	1.1%	-1
Ganger	-	-	-	-	2	0.8%	2	0.8%	2	0.7%	0
Painter and Decorator	-	-	-	-	3	1.2%	2	0.8%	2	0.7%	0
Plant & equipment Operator (hoist and crane)	-	-	-	-	2	0.8%	3	1.3%	1	0.4%	-2
Drainlayer/ Mainlayer	3	1.4%	1	0.4%	1	0.4%	2	0.8%	1	0.4%	-1
Drilling Assistant	-	-	-	-	1	0.4%	1	0.4%	1	0.4%	0
Plumber	-	-	-	-	0	0.0%	1	0.4%	1	0.4%	0
Plant & Equipment Operator (earthmoving machinery)	-	-	-	-	1	0.4%	1	0.4%	1	0.4%	0
Pneumatic Driller	-	-	-	-	0	0.0%	1	0.4%	1	0.4%	0
Plasterer	0	0.0%	1	0.4%	2	0.8%	0	0.0%	1	0.4%	1
Concreting Labourer	-	-	-	-	2	0.8%	0	0.0%	1	0.4%	1
Plant & Equipment Operator (bulldozers lift & other machinery)	-	-	-	-	0	0.0%	0	0.0%	1	0.4%	1
Leveller	-	-	-	-	2	0.8%	2	0.8%	0	0.0%	-2

Trades of Workers	2013		2014		2015		2016		2017		Change <sup>1</sup>
	No.	%	No.	%	No.	%	No.	%	No.	%	
Chainman	-	-	-	-	0	0.0%	1	0.4%	0	0.0%	-1
Bricklyer	-	-	-	-	0	0.0%	1	0.4%	0	0.0%	-1
Demolition Worker	-	-	-	-	0	0.0%	1	0.4%	0	0.0%	-1
Structural Steel Erector	-	-	-	-	0	0.0%	1	0.4%	0	0.0%	-1
Joiner	-	-	-	-	0	0.0%	1	0.4%	0	0.0%	-1
Tunnel Worker	-	-	-	-	1	0.4%	0	0.0%	0	0.0%	0
Bamboo Scaffolder	-	-	-	-	1	0.4%	0	0.0%	0	0.0%	0
Plant & equipment Operator (Piling)	-	-	-	-	0	0.0%	0	0.0%	0	0.0%	0
Piling Operative	-	-	-	-	0	0.0%	0	0.0%	0	0.0%	0
Plant & Equipment Operator (tunnelling)	-	-	-	-	0	0.0%	0	0.0%	0	0.0%	0
Carpenter (fender)	-	-	-	-	0	0.0%	0	0.0%	0	0.0%	0
Diver	-	-	-	-	0	0.0%	0	0.0%	0	0.0%	0
Marine Construction Plant Operator	-	-	-	-	0	0.0%	0	0.0%	0	0.0%	0
Worker/ General Worker	-	-	-	-	0	0.0%	0	0.0%	0	0.0%	0
Tradesman	-	-	-	-	0	0.0%	0	0.0%	0	0.0%	0
Foreman	-	-	-	-	0	0.0%	0	0.0%	0	0.0%	0
Mason	-	-	-	-	0	0.0%	0	0.0%	0	0.0%	0
<b>Sub-total</b>	174	82.5%	159	71.3%	212	86.5%	208	88.1%	256	92.1%	48
<b>Other Types</b>	37	17.5%	64	28.7%	33	13.5%	28	11.9%	22	7.9%	-6
<b>Total number of accidents</b>	<b>211</b>	<b>-----</b>	<b>223</b>	<b>---</b>	<b>245</b>	<b>-----</b>	<b>236</b>	<b>-----</b>	<b>278</b>	<b>-----</b>	<b>42</b>

1 “Change” means the difference in no. of accidents between 2016 and 2017.

**No. of Accidents for Public Works Contracts from 2013 to 2017**  
**Analyzed by Natures of Injury**

Natures of Injury	2013		2014		2015		2016		2017		Change <sup>1</sup>
	No.	%	No.	%	No.	%	No.	%	No.	%	
Fracture	68	32.2%	63	28.3%	78	27.0%	77	26.9%	94	28.4%	17
Contusion & Bruise	62	29.4%	47	21.1%	65	22.5%	63	22.0%	62	18.7%	-1
Laceration and Cut	27	12.8%	26	11.7%	29	10.0%	28	9.8%	39	11.8%	11
Sprain/ Strain/ Twist	37	17.5%	34	15.2%	35	12.1%	39	13.6%	35	10.6%	-4
Abrasion	-	-	-	-	10	3.5%	15	5.2%	16	4.8%	1
Crushing	12	5.7%	17	7.6%	18	6.2%	6	2.1%	13	3.9%	7
Multiple Injuries	-	-	-	-	5	1.7%	1	0.3%	10	3.0%	9
Dislocation	-	-	-	-	4	1.4%	3	1.0%	5	1.5%	2
Amputation	-	-	-	-	3	1.0%	2	0.7%	4	1.2%	2
Burn (heat)	-	-	-	-	3	1.0%	0	0.0%	4	1.2%	4
Puncture	-	-	-	-	0	0.0%	3	1.0%	3	0.9%	0
Irritation	-	-	-	-	1	0.3%	3	1.0%	1	0.3%	-2
Burn/ Scald	-	-	-	-	4	1.4%	1	0.3%	1	0.3%	0
Concussion & Other Internal Injury	-	-	-	-	3	1.0%	2	0.7%	0	0.0%	-2
Electric Shock/ Effects of Electric Current	-	-	-	-	3	1.0%	1	0.3%	0	0.0%	-1
Asphyxia	-	-	-	-	0	0.0%	1	0.3%	0	0.0%	-1
Poisoning and Gassing	-	-	-	-	0	0.0%	0	0.0%	0	0.0%	0
Freezing	-	-	-	-	0	0.0%	0	0.0%	0	0.0%	0
Nausea	-	-	-	-	0	0.0%	0	0.0%	0	0.0%	0
<b>Sub-total</b>	206	97.6%	187	83.9%	261	90.3%	245	85.7%	287	86.7%	42
<b>Other Types</b>	5	2.4%	36	16.1%	28	9.7%	41	14.3%	44	13.3%	3
<b>Total number of accidents<sup>2</sup></b>	<b>211</b> (211)	-----	<b>223</b> (223)	-----	<b>289</b> (245)	-----	<b>286</b> (236)	-----	<b>331</b> (278)	-----	45 (42)

1 “Change” means the difference in no. of accidents between 2016 and 2017

2 The figures were the total sum of items “Nature of Injury Incurred 1”, “Nature of Injury Incurred 2” and “Nature of Injury Incurred 3” in the Injury Report Form. “( )” is the total number of accidents of that year.

**No. of Accidents for Public Works Contracts from 2013 to 2017**  
**Analyzed by Parts of Body Injured in Accidents**

Parts of Body Injured	2013		2014		2015		2016		2017		
	No.	%	No.	%	No.	%	No.	%	No.	%	Change <sup>1</sup>
Finger	39	18.5%	61	27.4%	54	18.8%	60	19.8%	64	19.3%	4
Back	24	11.4%	19	8.5%	27	9.4%	31	10.2%	35	10.6%	4
Leg	13	6.2%	11	4.9%	12	4.2%	16	5.3%	20	6.0%	4
Chest	12	5.7%	9	4.0%	12	4.2%	16	5.3%	19	5.7%	3
Hand/ Palm	15	7.1%	20	9.0%	11	3.8%	12	4.0%	19	5.7%	7
Skull/Scalp	8	3.8%	8	3.6%	13	4.5%	9	3.0%	14	4.2%	5
Forearm	12	5.7%	9	4.0%	12	4.2%	9	3.0%	13	3.9%	4
Knee	-	-	-	-	10	3.5%	7	2.3%	13	3.9%	6
Ankle	23	10.9%	22	9.9%	12	4.2%	18	5.9%	11	3.3%	-7
Wrist	-	-	-	-	16	5.6%	12	4.0%	11	3.3%	-1
Foot/ Toe	14	6.6%	7	3.1%	22	7.6%	12	4.0%	10	3.0%	-2
Shoulder	-	-	-	-	10	3.5%	10	3.3%	8	2.4%	-2
Face/ Cheek/ Chin	7	3.3%	9	4.0%	9	3.1%	8	2.6%	8	2.4%	0
Elbow	-	-	-	-	8	2.8%	7	2.3%	8	2.4%	1
Neck	-	-	-	-	5	1.7%	6	2.0%	7	2.1%	1
Mouth/ Tooth/ Lip	-	-	-	-	3	1.0%	2	0.7%	5	1.5%	3
Eye	15	7.1%	4	1.8%	9	3.1%	12	4.0%	5	1.5%	-7
Hip	-	-	-	-	1	0.3%	0	0.0%	4	1.2%	4
Thigh	-	-	-	-	1	0.3%	6	2.0%	3	0.9%	-3
Upper Arm	-	-	-	-	5	1.7%	2	0.7%	3	0.9%	1
Ear	-	-	-	-	0	0.0%	1	0.3%	2	0.6%	1
Trunk	-	-	-	-	3	1.0%	1	0.3%	2	0.6%	1
Waist	-	-	-	-	4	1.4%	0	0.0%	2	0.6%	2
Pelvis/ Groin	-	-	-	-	2	0.7%	3	1.0%	1	0.3%	-2
Nose	-	-	-	-	1	0.3%	2	0.7%	1	0.3%	-1
Abdomen	-	-	-	-	1	0.3%	0	0.0%	1	0.3%	1
<b>Sub-total</b>	<b>182</b>	<b>86.3%</b>	<b>179</b>	<b>80.3%</b>	<b>263</b>	<b>91.3%</b>	<b>262</b>	<b>86.5%</b>	<b>289</b>	<b>87.3%</b>	<b>27</b>
<b>Other Types</b>	<b>29</b>	<b>13.7%</b>	<b>44</b>	<b>19.7%</b>	<b>25</b>	<b>8.7%</b>	<b>41</b>	<b>13.5%</b>	<b>42</b>	<b>12.7%</b>	<b>1</b>
<b>Total number of accidents<sup>2</sup></b>	<b>211</b>	<b>-----</b>	<b>223</b>	<b>-----</b>	<b>288</b>	<b>-----</b>	<b>303</b>	<b>-----</b>	<b>331</b>	<b>-----</b>	<b>28</b>
	<b>(211)</b>		<b>(223)</b>		<b>(245)</b>		<b>(236)</b>		<b>(278)</b>		<b>(42)</b>

<sup>1</sup> “Change” means the difference in no. of accidents between 2016 and 2017.

<sup>2</sup> The figures were the total sum of items “Body parts injured 1”, “Body parts injured 2” and “Body parts injured 3” in the Injury Report Form. “( )” is the total number of accidents of that year.

**No. of Accidents for Public Works Contracts from 2013 to 2017**  
**Analyzed by Agents Involved in Accidents**

Agents Involved	2013		2014		2015		2016		2017		Change <sup>1</sup>
	No.	%	No.	%	No.	%	No.	%	No.	%	
Floor, Ground, Stairs or Any Working Surface	38	18.0%	42	18.8%	52	20.2%	41	15.1%	54	18.6%	13
Material/ Product Being Handled or Stored (e.g. Plank, timber, rope etc.)	42	19.9%	41	18.4%	50	19.4%	42	15.5%	51	17.6%	9
Portable Power or Hand Tools	20	9.5%	22	9.9%	17	6.6%	33	12.2%	27	9.3%	-6
Ladder or Working At Height	18	8.5%	5	2.2%	9	3.5%	10	3.7%	15	5.2%	5
Other Machinery (specify)	8	3.8%	18	8.1%	6	2.3%	7	2.6%	10	3.4%	3
Construction Formwork, Shuttering & Falsework	3	1.4%	2	0.9%	5	1.9%	7	2.6%	9	3.1%	2
Excavation/ Underground Work	-	-	-	-	2	0.8%	3	1.1%	9	3.1%	6
Steel Bar/ Rod	0	0.0%	9	4.0%	5	1.9%	1	0.4%	9	3.1%	8
Vehicle or Associated Equipment or Machinery	-	-	-	-	3	1.2%	9	3.3%	8	2.8%	-1
Equipment For Lifting/ Conveying	12	5.7%	13	5.8%	6	2.3%	14	5.2%	7	2.4%	-7
Gas, Vapour, Dust or Fume	-	-	-	-	2	0.8%	4	1.5%	5	1.7%	1
Scaffolding/ Gondola	-	-	-	-	1	0.4%	3	1.1%	4	1.4%	1
Pipe	-	-	-	-	4	1.6%	1	0.4%	3	1.0%	2
Slope	-	-	-	-	4	1.6%	2	0.7%	1	0.3%	-1
Nail, Splinter or Chipping	-	-	-	-	1	0.4%	1	0.4%	1	0.3%	0
Electricity Supply, Wiring Apparatus or Equipment	-	-	-	-	2	0.8%	1	0.4%	1	0.3%	0
Sewage, Manhole or Other Confined Space	-	-	-	-	1	0.4%	0	0.0%	0	0.0%	0
Movable Container or Package of Any Kind	-	-	-	-	0	0.0%	0	0.0%	0	0.0%	0
<b>Sub-total</b>	141	66.8%	152	68.2%	170	65.9%	179	66.1%	214	73.8%	35
<b>Other Types</b>	70	33.2%	71	31.8%	88	34.1%	92	33.9%	76	26.2%	-16
<b>Total number of accidents <sup>2</sup></b>	<b>211</b> <b>(211)</b>	<b>-----</b>	<b>223</b> <b>(223)</b>	<b>-----</b>	<b>258</b> <b>(245)</b>	<b>-----</b>	<b>271</b> <b>(236)</b>	<b>-----</b>	<b>290</b> <b>(278)</b>	<b>-----</b>	<b>19</b> <b>(42)</b>

<sup>1</sup> “Change” means the difference in no. of accidents between 2016 and 2017

<sup>2</sup> There were more records because multiple selection of “Agents Involved” was allowed. “( )” is the total number of accidents of that year.

**No. of Accidents for Public Works Contracts from 2013 to 2017**  
**Analyzed by Unsafe Actions Involved in Accidents**

Unsafe Actions	2013		2014		2015		2016		2017		
	No.	%	No.	%	No.	%	No.	%	No.	%	Change <sup>1</sup>
Lapse Of Attention	65	30.8%	81	36.3%	100	36.4%	105	36.2%	105	33.8%	0
Adopting Unsafe Position or Posture	51	24.2%	39	17.5%	43	15.6%	39	13.4%	63	20.3%	24
Use Unsuitable Access/ Failure To Use Access	12	5.7%	10	4.5%	18	6.5%	11	3.8%	16	5.1%	5
Failure To Secure Objects	17	8.1%	14	6.3%	17	6.2%	10	3.4%	15	4.8%	5
Use Unsafe Equipment/ Use Equipment Unsafely	9	4.3%	11	4.9%	8	2.9%	10	3.4%	13	4.2%	3
Unsafe Loading, Placing, Mixing etc.	19	9.0%	7	3.1%	5	1.8%	7	2.4%	10	3.2%	3
Operating Without Authority	-	-	-	-	3	1.1%	1	0.3%	6	1.9%	5
Failure To Use Safety Belt/ Harness	-	-	-	-	3	1.1%	5	1.7%	3	1.0%	-2
Failure To Use Gloves	-	-	-	-	7	2.5%	5	1.7%	3	1.0%	-2
Failure To Use Eye Protector	-	-	-	-	4	1.5%	3	1.0%	2	0.6%	-1
Making Safety Devices Inoperative	-	-	-	-	0	0.0%	3	1.0%	2	0.6%	-1
Operating or Working At Unsafe Speed	-	-	-	-	2	0.7%	1	0.3%	2	0.6%	1
Failure To Use Helmet	-	-	-	-	0	0.0%	0	0.0%	2	0.6%	2
Working On Moving or Dangerous Equipment	-	-	-	-	2	0.7%	2	0.7%	1	0.3%	-1
Failure To Warn Others or Give Proper Signals	-	-	-	-	2	0.7%	5	1.7%	1	0.3%	-4
Failure To Use Proper Footwear	2	0.9%	4	1.8%	5	1.8%	0	0.0%	1	0.3%	1
Failure To use Proper Clothing	-	-	-	-	1	0.4%	0	0.0%	0	0.0%	0
Horseplay	-	-	-	-	0	0.0%	0	0.0%	0	0.0%	0
Smoking/ Burning	-	-	-	-	0	0.0%	0	0.0%	0	0.0%	0
Failure To Use Respirator	-	-	-	-	0	0.0%	0	0.0%	0	0.0%	0
<b>Sub-total</b>	175	82.9%	166	74.4%	220	80.0%	207	71.4%	245	78.8%	38
<b>Other Types</b>	36	17.1%	57	25.6%	55	20.0%	83	28.6%	66	21.2%	-17
<b>Total sum of "Unsafe Actions"<sup>2</sup></b>	<b>211</b> <b>(211)</b>	<b>-----</b>	<b>223</b> <b>(223)</b>	<b>-----</b>	<b>275</b> <b>(245)</b>	<b>-----</b>	<b>290</b> <b>(236)</b>	<b>-----</b>	<b>311</b> <b>(278)</b>	<b>-----</b>	21 (42)

<sup>1</sup> "Change" means the difference in no. of accidents between 2016 and 2017

<sup>2</sup> There were more records because multiple selection of "Unsafe Actions" was allowed. "( )" is the total number of accidents of that year.



**No. of Accidents for Public Works Contracts from 2013 to 2017**  
**Analyzed by Unsafe Conditions Involved in Accidents**

Unsafe Conditions	2013		2014		2015		2016		2017		Change <sup>1</sup>
	No.	%	No.	%	No.	%	No.	%	No.	%	
Unsafe Process or Job Methods	38	18.0%	30	13.5%	24	9.2%	29	10.4%	41	14.0%	12
Improper Procedure	21	10.0%	30	13.5%	33	12.6%	29	10.4%	32	10.9%	3
Slippery Area	17	8.1%	13	5.8%	15	5.7%	18	6.5%	19	6.5%	1
Poor Housekeeping	8	3.8%	9	4.0%	6	2.3%	11	3.9%	18	6.1%	7
Improper Stacking/ Storage	5	2.4%	7	3.1%	5	1.9%	14	5.0%	17	5.8%	3
Inadequate Tools and Protective Equipment	11	5.2%	6	2.7%	9	3.4%	6	2.2%	11	3.8%	5
Inadequate Working Space/ Platform	17	8.1%	11	4.9%	12	4.6%	10	3.6%	11	3.8%	1
Defective Tool, Machinery or Material	7	3.3%	1	0.4%	6	2.3%	4	1.4%	8	2.7%	4
Lack Of Warning System	5	2.4%	11	4.9%	9	3.4%	8	2.9%	6	2.0%	-2
Improper Guarding/ No Guarding	-	-	-	-	2	0.8%	2	0.7%	5	1.7%	3
No Protective Gear	-	-	-	-	1	0.4%	3	1.1%	3	1.0%	0
Adverse Weather	-	-	-	-	2	0.8%	3	1.1%	1	0.3%	-2
Improper Dress/ Footwear	6	2.8%	2	0.9%	5	1.9%	0	0.0%	2	0.7%	2
Defective Protective Gear	-	-	-	-	2	0.8%	0	0.0%	0	0.0%	0
Unsafe Layout Of Job, Traffic etc.	-	-	-	-	2	0.8%	0	0.0%	0	0.0%	0
Improper Ventilation	-	-	-	-	1	0.4%	0	0.0%	0	0.0%	0
Improper Illumination	-	-	-	-	1	0.4%	0	0.0%	0	0.0%	0
<b>Sub-total</b>	135	64.0%	120	53.8%	135	51.5%	137	49.1%	174	59.4%	37
<b>Other Types</b>	76	36.0%	103	46.2%	127	48.5%	142	50.9%	119	40.6%	-23
<b>Total number of accidents <sup>2</sup></b>	<b>211</b> (211)	-----	<b>223</b> (223)	-----	<b>262</b> (245)	-----	<b>279</b> (236)	-----	<b>293</b> (278)	-----	14 (42)

1 “Change” means the difference in no. of accidents between 2016 and 2017.

2 There were more records because multiple selection of “Unsafe Conditions Involved” was allowed. “( )” is the total number of accidents of that year.

**No. of Accidents for Public Works Contracts from 2013 to 2017**  
**Analyzed by Personal Factors Involved in Accidents**

Personal Factors Involved	2013		2014		2015		2016		2017		
	No.	%	No.	%	No.	%	No.	%	No.	%	Change <sup>1</sup>
Carelessness/ Not Concentrate	127	60.2%	124	55.6%	158	57.9%	178	59.9%	169	55.6%	-9
Lack Of Knowledge or Skill	31	14.7%	26	11.7%	29	10.6%	19	6.4%	33	10.9%	14
Incorrect Attitude/ Motive	30	14.2%	37	16.6%	40	14.7%	28	9.4%	28	9.2%	0
Unsafe Act By Another Person	-	-	-	-	6	2.2%	11	3.7%	9	3.0%	-2
Physical Defects	-	-	-	-	2	0.7%	2	0.7%	4	1.3%	2
Fatigue/ Exhaustion	-	-	-	-	2	0.7%	2	0.7%	1	0.3%	-1
<b>Sub-total</b>	188	89.1%	187	83.9%	237	86.8%	240	80.8%	244	80.3%	4
<b>Other Types</b>	23	10.9%	36	16.1%	36	13.2%	57	19.2%	60	19.7%	3
<b>Total number of accidents <sup>2</sup></b>	<b>211</b> <b>(211)</b>	<b>-----</b>	<b>223</b> <b>(223)</b>	<b>-----</b>	<b>273</b> <b>(245)</b>	<b>-----</b>	<b>297</b> <b>(269)</b>	<b>-----</b>	<b>304</b> <b>(278)</b>	<b>-----</b>	<b>7</b> <b>(42)</b>

1 “Change” means the difference in no. of accidents between 2016 and 2017.

2 There are more records than the number of accidents because multiple selection of “Person Factors Involved” was allowed. “( )” is the total number of accidents of that year.