File 1　Occurrence of occupational hazards in the construction industry

Announcements by Ministry of Health, Labour and Welfare on the occurrence of occupational hazards in all industries and in particular, the construction industry are shown below. The statistics on occupational hazards include all workers (foreign workers included).

Occurrence of injuries and deaths caused by accidents and where the worker is unable to work for more than 4 days were taken from worker casualty reports. Occurrence of deaths by accidents were taken from fatal accident reports.

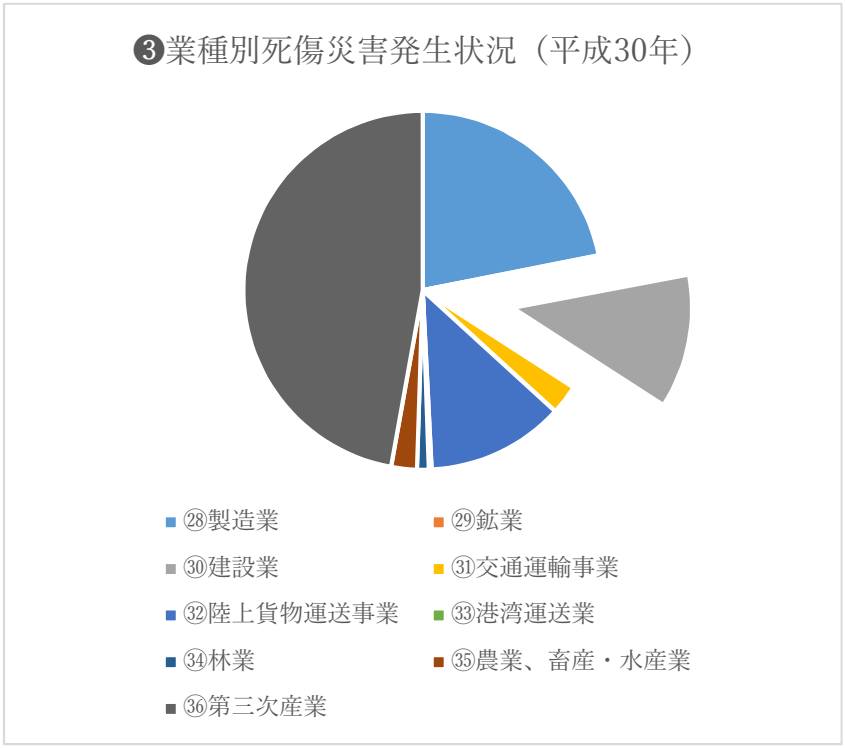
❶事故の型別死傷災害発生状況（平成30年）

	⑥墜落・転落	⑦転倒	⑧激突	⑨飛来・落下	⑩崩壊・倒壊	⑪激突され	⑫はさまれ・巻き込まれ	⑬切れ・こすれ	⑭踏抜き	⑮おぼれ	⑯高温・低温物との接触	⑰有害物との接触	⑱感電	⑲爆発	⑳破裂	㉑火災	㉒交通事故（道路）	㉓交通事故（その他）	㉔動作の反動・無理な動作	㉕その他	㉖分類不能	㉗合計
①全産業	21,221	31,833	6,354	6,410	2,312	5,373	14,585	7,878	258	46	3,546	537	126	64	44	85	7,889	98	16,958	1,445	267	127,329
②建設業	5,154	1,616	636	1,432	489	832	1,731	1,267	103	15	340	91	47	7	8	36	598	8	875	77	12	15,374
③土木工事	889	445	181	406	163	335	615	278	10	8	91	18	3	2	4	3	178	2	231	24	3	3,889
④建築工事	3,313	865	345	756	237	355	771	814	77	2	162	49	17	3	2	22	259	4	459	34	8	8,554
⑤その他の建設	952	306	110	270	89	142	345	175	16	5	87	24	27	2	2	11	161	2	185	19	1	2,931

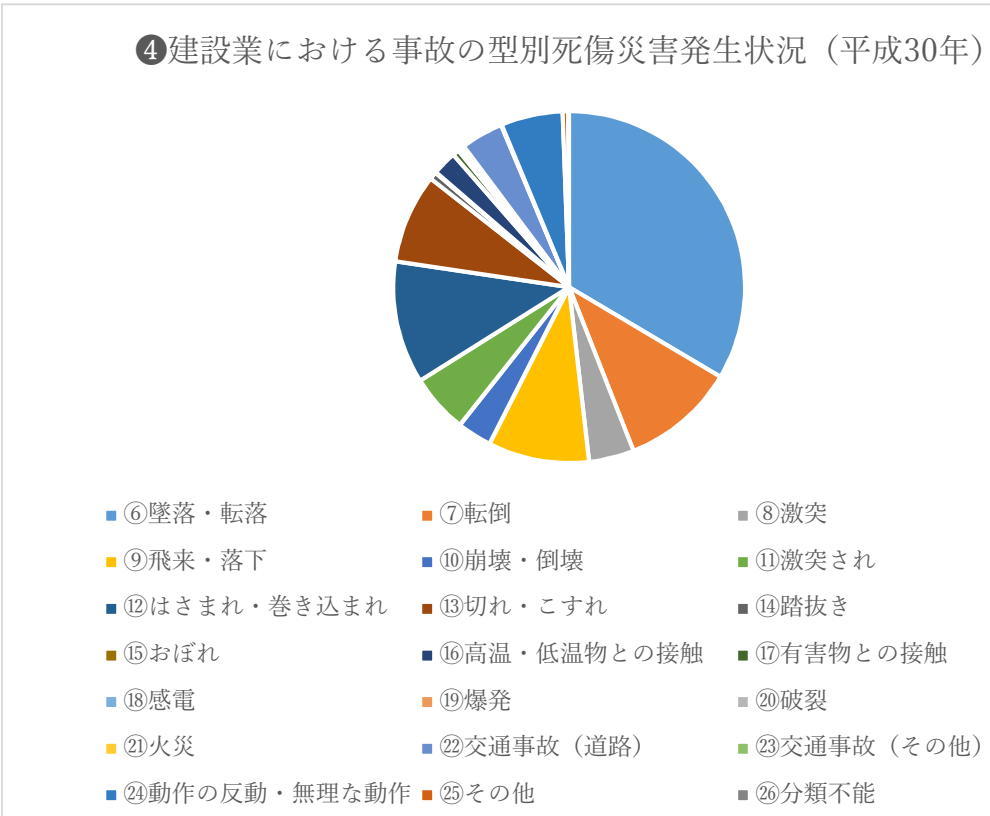
❷事故の型別死亡災害発生状況（平成30年）

	⑥墜落・転落	⑦転倒	⑧激突	⑨飛来・落下	⑩崩壊・倒壊	⑪激突され	⑫はさまれ・巻き込まれ	⑬切れ・こすれ	⑭踏抜き	⑮おぼれ	⑯高温・低温物との接触	⑰有害物との接触	⑱感電	⑲爆発	⑳破裂	㉑火災	㉒交通事故（道路）	㉓交通事故（その他）	㉔動作の反動・無理な動作	㉕その他	㉖分類不能	㉗合計
①全産業	256	28	3	53	54	58	113	5	0	35	36	17	13	7	1	6	175	3	0	43	3	909
②建設業	136	6	1	24	23	18	30	3	0	13	11	1	5	1	0	2	31	0	0	3	1	309
③土木工事	30	3	1	10	11	13	18	3	0	7	1	0	0	0	0	0	11	0	0	2	1	111
④建築工事	84	1	0	11	8	2	9	0	0	1	8	0	2	0	0	0	12	0	0	1	0	139
⑤その他の建設	22	2	0	3	4	3	3	0	0	5	2	1	3	1	0	2	8	0	0	0	0	59

❸業種別死傷災害発生状況（平成30年）



❹建設業における事故の型別死傷災害発生状況（平成30年）



❶事故の型別死傷災害発生状況（平成 30 年）
Occurrence of injuries and deaths caused by type of accident (2018)
❷事故の型別死亡災害発生状況（平成 30 年）
Occurrence of deaths caused by type of accident (2018)
❸業種別死傷災害発生状況（平成 30 年）
Occurrence of injuries and deaths caused by type of accident by industry (2018)
❹建設業における事故の型別死傷災害発生状況（平成 30 年）
Occurrence of injuries and deaths caused by type of accident within the construction industry(2018)

①全産業
All Industries
②建設業
Construction Industry
③土木工事
Civil Engineering
④建築工事
Architectural Construction
⑤その他の建設
Other Construction
⑥墜落・転落
Falls from height
⑦転倒
Falls on the same level
⑧激突
Crashes
⑨飛来・落下
Flying or falling object
⑩崩壊・倒壊
Collapse
⑪激突され
Struck by
⑫はさまれ・巻き込まれ
Caught in or in between
⑬切れ・こすれ

Cuts/Scratches

⑭踏抜き

Stepping on nails, splinters and others

⑮おぼれ

Drowning

⑯高温・低温物との接触

Contact with high temperature/ low temperature objects

⑰有害物との接触

Contact with harmful substances

⑱感電

Electrocution

⑲爆発

Explosion

⑳破裂

Ruptures

㉑火災

Fire

㉒交通事故（道路）

Traffic accidents (road)

㉓交通事故（その他）

Traffic accidents (other)

㉔動作の反動・無理な動作

Reaction to motion/ improper motion

㉕その他

Others

㉖分類不能

Unclassifiable

㉗合計

Total

㉘製造業

Manufacturing industry

㉙鉱業

Mining industry

㉚建設業

Construction industry

㉛交通運送事業

Transportation industry

㉜陸上貨物運送事業

Overland freight transportation industry

㉝港湾運送業

Port transport industry

㉞林業

Forestry

㉟農業、畜産・水産業

Agriculture, Livestock, Fishing industry

㊱第三次産業

Service industry

File 2 Accidents involving technical intern trainees

Type	Examples of accidents	
Falls from height	Eg. 1	Lost footing and fell when turning around while working on scaffolding.
	Eg. 2	Slipped and fell down while moving from beam to scaffolding.
	Eg. 3	Slipped and fell down because of wet scaffolding after it rained the previous day.
	Eg. 4	Fell down from the scaffolding when the rope of the crane carrying pipes was cut and the pipes fell on the scaffolding.
	Eg. 5	Fell down when the slate cracked during hooking of safety rope while removing roof slate from a warehouse roof.
	Eg. 6	Slipped and fell down because of wet tiles while painting on the roof.
	Eg. 7	Fell down when grabbing on an object that was not fixed properly
Falls on the same level	Eg. 8	Fell down after tripping on an object on the ground. Worker was not able to see the object because of the cargo he was carrying.
Collapse	Eg. 9	During inspection of digging area, got injured when pile of dirt collapses from behind.
Struck by	Eg.10	Injury to a worker's foot caused by mishandling of pipes during dismantling of scaffolding.
	Eg.11	While loading a dump truck, a pedestrian came close so the operator tried to stop the backhoe from turning, but another worker's foot got injured when the tread of the backhoe ran over his foot.
	Eg.12	A worker was injured when he went in the blind spot of the excavator driver.
Caught in or in between	Eg.13	Left hand holding on to the panel got injured when the glove got caught on the circular saw while it as being used to cut panels.

Cuts/Scratches	Eg.14	Mishandling of nail gun while trying to fix plywood on the foundation. Injury occurred when the worker accidentally fired the nail gun on his knee.
	Eg.15	Injured hand while working using a portable circular saw. Worker's hand slipped and was sliced by the blade.
Stepping on nails, splinters and others	Eg.16	While wearing tabi-boots, stepped on a nail sticking out on the floorboard causing injury to the worker's foot.
Contact with harmful substances	Eg.17	While using an electric tool plugged to a gasoline powered generator, poisonous gas accumulated inside the workplace resulting in carbon monoxide poisoning.
	Eg.18	During the cleaning process after work pouring concrete, some concrete went on the skin of the worker turning his skin red, resulting in needing medical attention.
Reaction to motion/ improper motion	Eg.19	A worker experienced severe pain on his lower back while in a squatting position as he attempted to carry scaffolding materials.

Occupational hazards of foreign workers

(Source: Worker casualty report, Ministry of Health, Labour and Welfare)

〇単位：人

Unit: number of people

〇休業４日以上の死傷者数

Number of casualties requiring more than 4 days of leave

File 3

Basic rules to be followed by technical intern trainees

- Follow the rules set on the construction site that you enter.
- Obey orders. If orders are not clear, don't hesitate to ask again.
- Avoid working alone. Work alongside other workers as much as possible.
- Avoid going to areas where objects might fall.
- Don't lean on temporary structures.
- Avoid getting below objects that are being carried.
- Concentrate while working. Don't look away.
- Look at your surroundings before moving and before going around the construction area.
- Turn off electrical tools when not in use or while cleaning.
- Tidy up and put in order tools that are not in use.
- Don't use broken tools, ask for it to be replaced.
- Don't use machinery unless you have the required licenses and permits.
- Health issues and other issues that worry you should be brought up with the person in charge of technical training, your trainer or lifestyle instructor.
- Report all accidents that occur during work.
- Injuries sustained during work which require medical treatment will be covered by the industrial accident compensation insurance.
- If you are unable to work due to a work-related accident, you will be compensated by the implementing organization for the first 3 days. On the 4th day onward, you will be compensated through the industrial accident compensation insurance.

File 4

【4－1】Falls

Slipping and falling down because of wet scaffolding when it rained the previous day.

• Problems with safety measures

○ Crosspiece on scaffolding was not placed. ○ Improper inspection of scaffolding after severe weather such as heavy rains or after completion or changing of scaffolding structure.

• Measures made by implementing organization

○ Observe measures that would avoid falls from the scaffolding. (Placing crosspieces, baseboards, handrails and use of safety harnesses). ○ During inspection of scaffolding after severe weather such as heavy rains or after completion or changing of scaffolding structure, thoroughly check if there are safety measures or devices in place at the workplace.

• What we want for technical intern trainees to be careful of

○ The work place is outdoors so conditions may change. When it rains it is wet, and the mesh sheets can be blown away. Be extra careful when working at high places and working beside hazards such as sharp materials. ○ When moving around high places, wear safety harnesses as much as possible. ○ Avoid going near areas where there are no safety measures such as handrails. ○ Be careful of openings on the work floor.

【4－2】Falls

Fell down when the slate broke as worker was doing repair work on the roof.

• Problems with safety measures

○ Going up a roof where there are nails and splinters that could cause harm. ○ Did not place step boards that are more than 30 cm in width and did not place safety nets.

• Measures made by implementing organization

○ Until safety measure are set in place do not go up the roof. ○ Place step boards that are more than 30 cm in width and place safety nets.

• What we want for technical intern trainees to be careful of

○ At first glance, a slate or glass roof can seem safe. However, if too much weight is applied, these might break. Workers have fallen from these types of roofs. When working on these types of roofs, be sure to use boards or treads and follow orders. ○ Be careful on wet tiles as they are slippery

【4－3】Flying or falling objects

Almost got injured when the slinging wire of a crane carrying H-beams broke and fell down during loading these on a truck.

• Problems with safety measures

○ Did not inspect wire ropes.
○ Went under the materials being lifted by the crane.

• Measures made by implementing organization

○ Look for any damages on the wire rope before beginning work. Confirm whether the rope can be used. If damage is severe, this must be replaced.
○ Slinging work must be done only by qualified workers.
○ Information must be given about the weight of materials and load limits.
○ Workers must not enter danger zones because where there are materials that may fall or collapse.

• What we want for technical intern trainees to be careful of

○ Do not use worn out wire ropes and do not go under materials being lifted.

【４－４】Caught in between

Finger got caught in between the cylinder and the attachment when it moved while changing the attachment of a vehicle type machinery.

• Problems with safety measures

○ Fixture that prevent the attachment from moving were not in place.

• Measures made by implementing organization

○ Be sure to have the attachment secured when applying it onto, or removing it from the machine. Be sure to use a replacement stand and do not work on flat surfaces as these make the work surface unstable.

• What we want for technical intern trainees to be careful of

○ Follow operational procedures.

【4－5】Struck by

The worker moved in the blind spot of the excavator as the operator reversed, resulting in the worker's foot getting injured because the tread of the excavator ran over his foot.

• Problems with safety measures

○ There were no signs indicating prohibited areas while the excavator is in use. There were no guide personnel working to guide the excavator operator.

• Measures made by implementing organization

○ Designate "Do Not Enter" areas where the excavator is in operation using barricades and ropes. Guide personnel can be placed as well.

○ The excavator operator should check the surroundings before operating the machine.

○ Pedestrians should not go near the excavator while it is in operation.

• What we want for technical intern trainees to be careful of

○ Check carefully where machine is moving towards and be aware of its range.

○ Do not enter prohibited areas.

○ Follow instructions from the guide personnel.

【4－6】Heat stroke

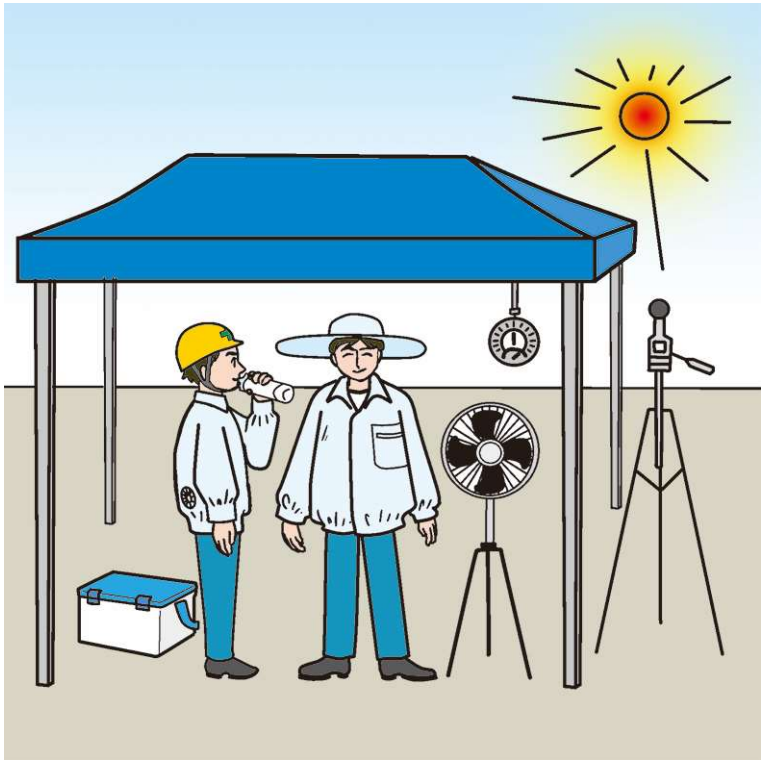
Worker was not feeling well in the morning but chose to work instead. The worker collapsed during road paving work on a hot summer day under the sun.

• Problems with safety measures

○ Did not take enough rest and hydrate.

• Measures

○ Check the daily weather report and health status of the workers before beginning work. ○ Adjust working hours accordingly. Eg. Reduce working time during the day. ○ Take breaks often, indoors or under tents and re-hydrate.



• What we want for technical intern trainees to be careful of

○ Report any health issues or if you are not feeling well.