File 1 Occurrence of occupational hazards in the food processing industry

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

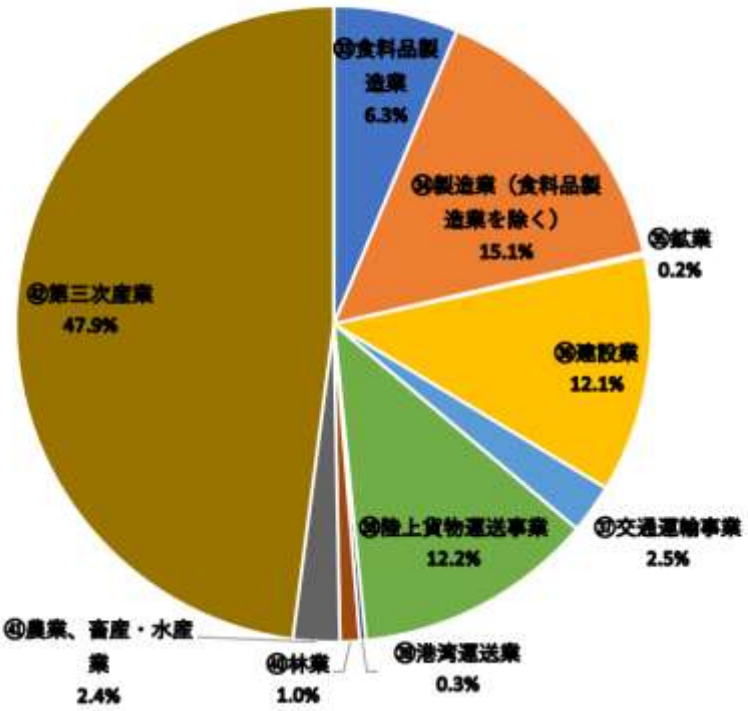
❶事故の型別死傷災害発生状況（平成31年/令和元年）

	⑪墜落・転落	⑫転倒	⑬激突	⑭飛来・落下	⑮崩壊・倒壊	⑯激突され	⑰はさまれ・巻き込まれ	⑱切れ・こすれ	⑲踏み抜き	⑳おぼれ	㉑高温・低温の物との接触	㉒有害物等との接触	㉓感電	㉔爆発	㉕破裂	㉖火災	㉗交通事故（道路）	㉘交通事故（その他）	㉙動作の反動・無理な動作	㉚その他	㉛分類不能	㉜合計
①全産業	21,346	29,986	6,534	6,049	2,236	5,609	14,592	7,977	220	30	3,250	521	89	66	42	128	7,350	110	17,709	1,501	266	125,611
②製造業	2,975	5,070	1,312	1,801	595	1,203	6,959	2,571	31	1	911	216	27	38	14	31	306	8	2,646	129	29	26,873
③食料品製造	674	2,292	386	306	98	262	1,637	980	4	0	395	56	3	2	1	2	73	4	751	27	10	7,963
④肉・乳製品	69	279	50	46	13	33	177	186	2	0	32	10	0	0	0	0	11	0	94	3	2	1,007
⑤水産食料品	67	263	42	41	12	43	210	157	0	0	37	5	0	0	0	0	5	1	69	5	1	958
⑥農産食料品	35	123	17	18	5	14	84	41	0	0	19	3	0	1	0	0	4	0	31	0	0	395
⑦ン・菓子	92	335	51	37	21	35	311	73	1	0	50	4	0	0	0	1	4	1	111	6	3	1,136
⑧その他の食品	357	1,258	217	152	47	131	795	517	1	0	233	31	3	1	1	1	47	1	424	13	4	4,234
⑨酒製造	32	18	3	5	0	2	38	4	0	0	12	2	0	0	0	0	0	1	12	0	0	129
⑩飲料製造	22	16	6	7	0	4	22	2	0	0	12	1	0	0	0	0	2	0	10	0	0	104

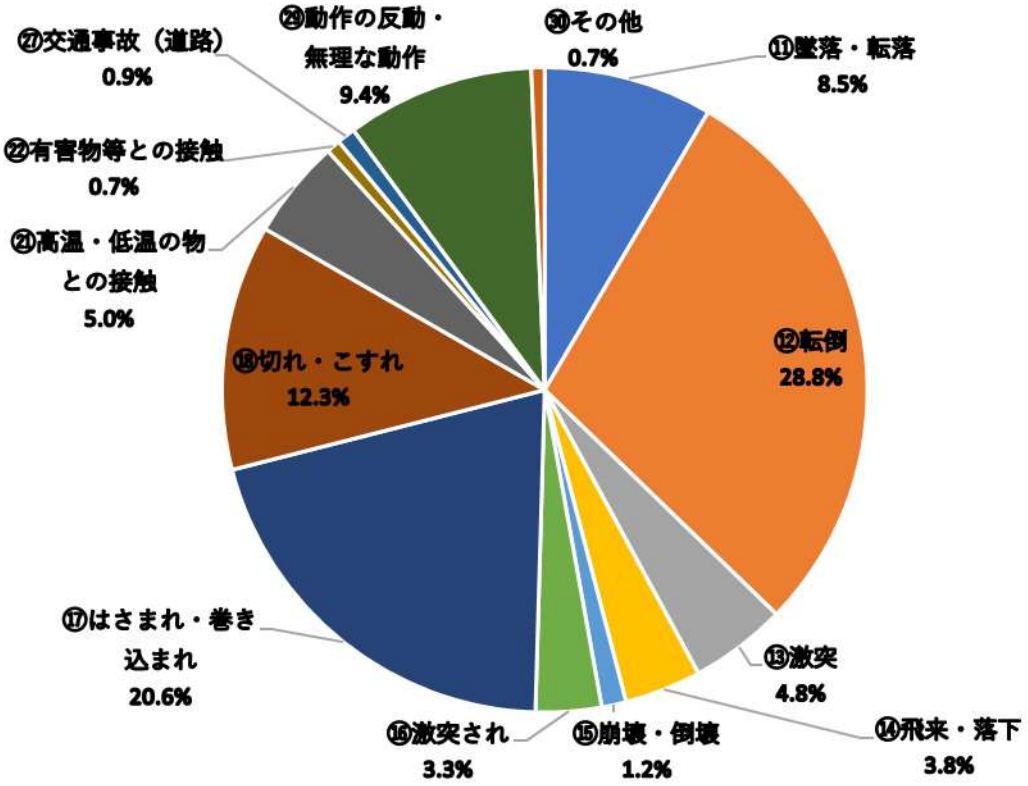
❷事故の型別死亡災害発生状況（平成31年/令和元年）

	⑪墜落・転落	⑫転倒	⑬激突	⑭飛来・落下	⑮崩壊・倒壊	⑯激突され	⑰はさまれ・巻き込まれ	⑱切れ・こすれ	⑲踏み抜き	⑳おぼれ	㉑高温・低温の物との接触	㉒有害物等との接触	㉓感電	㉔爆発	㉕破裂	㉖火災	㉗交通事故（道路）	㉘交通事故（その他）	㉙動作の反動・無理な動作	㉚その他	㉛分類不能	㉜合計
①全産業	216	22	2	43	56	77	104	4	0	24	27	14	3	4	0	45	157	3	0	42	2	845
②製造業	23	5	0	8	8	14	49	1	0	1	5	4	1	3	0	4	8	0	0	7	0	141
③食料品製造	1	1	0	1	0	0	6	0	0	0	1	0	0	0	0	0	3	0	0	3	0	16
④肉・乳製品	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	4
⑤水産食料品	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2
⑥農産食料品	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
⑦ン・菓子	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	4
⑧その他の食品	0	0	0	1	0	0	2	0	0	0	1	0	0	0	0	0	2	0	0	0	0	6
⑨酒製造	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
⑩飲料製造	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

❸業種別死傷災害発生状況（平成31年/令和元年）



❹食料品製造業における事故の型別死傷災害発生状況（平成31年/令和元年）



❶事故の型別死傷災害発生状況（平成３１年/令和元年）
Occurrence of injuries and deaths caused by type of accident (2019)
❷事故の型別死亡災害発生状況（平成３１年/令和元年）
Occurrence of deaths caused by type of accident (2019)
❸業種別死傷災害発生状況（平成３１年/令和元年）
Occurrence of injuries and deaths caused by type of accident by industry (2019)
❹食料品製造業における事故の型別死傷災害発生状況（平成３１年/令和元年）
Occurrence of injuries and deaths caused by type of accident within the food processing industry (2019)

①全産業
All Industries
②製造業
Manufacturing Industry
③食料品製造
Food Processing
④肉・乳製品
Meat/Dairy products
⑤水産食料品
Fishing
⑥農産食料品
Agriculture
⑦パン・菓子製造
Bakery/Confectionery manufacturing
⑧その他の食品
Other foods
⑨酒製造
Alcoholic beverage making
⑩飲料製造
Beverage manufacturing
⑪墜落・転落
Falls from height
⑫転倒
Falls on the same level

⑬激突
Crashes
⑭飛来・落下
Flying or falling object
⑮崩壊・倒壊
Collapse
⑯激突され
Struck by
⑰はさまれ・巻き込まれ
Caught in or in between
⑱切れ・こすれ
Cuts/Scratches
⑲踏抜き
Stepping on nails, splinters and others
⑳おぼれ
Drowning
㉑高温・低温物との接触
Contact with high temperature/low temperature objects
㉒有害物との接触
Contact with harmful substances
㉓感電
Electrocution
㉔爆発
Explosion
㉕破裂
Ruptures
㉖火災
Fire
㉗交通事故（道路）
Traffic accidents (road)
㉘交通事故（その他）
Traffic accidents (others)
㉙動作の反動・無理な動作
Reaction to motion/ improper motion
㉚その他
Others

㉛分類不能
Unclassifiable
㉜合計
Total
㉝食料品製造業
Food processing industry
㉞製造業（食料品製造業を除く）
Manufacturing industry (excluding food processing)
㉟鉱業
Mining industry
㊱建設業
Construction industry
㊲交通運輸事業
Transportation industry
㊳陸上貨物運送事業
Overland freight transportation industry
㊴港湾運送業
Port transportation industry
㊵林業
Forestry
㊶農業、畜産・水産業
Agriculture, Livestock, Fishing industry
㊷第三次産業
Service industry

File 2 Occurrence of occupational hazards while using food processing machinery

○This analysis of occupational hazards shows occupational hazards using food processing machinery (food packaging machines, sorting machines included. Same below) which includes the following:

①Number of occupational hazards that occurred in 2006 where the worker is unable to work for more than 4days (Lost work time) 1487 cases (analysis from Reports of Worker Casualties)

②Incidences of fatal accidents that occurred from 1990 till 2007 where an accident investigation report was obtained: 69 cases (will be referred to as fatal accidents)

1 Occurance of hazards by type of industry 30% of incidences occurred within the food processing industry and the services industry which includes retail.

○With regard to the number of cases of Lost work time: 984 cases (66.2%) occurred within the food processing industry while 465 cases (31.3%) occurred within the services industry such as retail. These two industries represent about 30% of all Lost work time incidences.

○Most occupational hazard deaths occurred in the food processing industry.

Graph: Occurrence of occupational hazards by type of industry

Type of industry	Cases of Lost work time		Cases of death	
Meat/Dairy Products Manufacturing	121	(8.1%)	5	(7.2%)
Seafood Manufacturing	149	(10.0%)	2	(2.9%)
Preserved Agricultural Products Manufacturing	60	(4.0%)		
Bakery/Confectionery processing	218	(14.7%)	14	(20.3%)
Alcohol/Beverages manufacturing	16	(1.1%)	9	(13.0%)
Other food processing industries	420	(28.2%)	34	(49.3%)
sub-total	984	(66.2%)	64	(92.8%)
Wholesale business	34	(2.3%)		
Retail business	246	(16.5%)	1	(1.4%)
Other commercial businesses	5	(0.3%)		
Health-care/Social welfare facilities	36	(2.4%)		
Hotel business	7	(0.5%)		
Restaurant business	134	(9.0%)	3	(4.3%)
Other customer service entertainment business	3	(0.2%)		
Sub-total	465	(31.3%)	4	(5.6%)
Others	38	(2.6%)	1	(1.4%)
Total	1,487	(100.0%)	69	(100.0%)

2 Type of accident

"Cuts/Scratches" and "Caught in or in between" are the most common types of accidents that occurred

○With regard to the number of cases of Lost work time; "Cuts/Scratches" were 715 cases (48.1) and "Caught in or in between" were 714 cases (48%). These two types of accidents represent 96.1% of all accidents which occurred.

○With regard to fatal accidents, there were 57 cases (82.5%) of "Caught in or in between" This type of accident has significantly increased.

Graph: type of accident

Type of accident	Cases of Lost work time		Cases of fatal accidents	
Cuts/Scratches	715	(48.1%)	4	(5.8%)
Caught in or in between	714	(48.0%)	57	(82.6%)
Contact with high temperature/low temperature objects	48	(3.2%)		
Flying or falling object	1	(0.1%)		
Struck by or got hit by	7	(0.5%)	1	(1.4%)
Fire/explosion	2	(0.1%)	2	(2.9%)
Contact with harmful substances			1	(1.4%)
Electrocution			4	(5.8%)
Total	1,487	(100.0%)	69	(100.0%)

3 Type of machine

Incidences with vegetable/fruit, meat and seafood processing machine slicers represent a significant portion

OIn cases of Lost work time,

①Vegetable/Fruit processing machinery 337 cases (22.6%)

②Meat processing machinery 270 cases (18.1%)

③Seafood processing machinery 171 cases (11.5%)

④Baking machinery 165 cases (11.1%)

⑤Confectionery machinery 141 cases (9.5%)

Number of incidences are shown above. (1～3) represent more than half of the incidences

OWith regard to fatal accidents, 13 cases (18.8%) are from Noodle making machinery and 9 cases (13%) confectionery production machinery. Cases from noodle making machinery stands out from the results.

Looking at the results, mixer parts of noodle making machines represent 8 cases (11.6%), kneading machines in confectionery machines represent 4 cases (5.8%), mixing, kneading machines and grinders from vegetable/fruit processing machine represent 3 cases (4.3%)

OThere were 143 cases (42.4%) with vegetable/fruit processing machines, 138 cases (51.1%) with meat processing machines and 72 cases (43.6%) with baking machines.

Graph: Accidents that occurred by machine type

Type of machine		Lost work time		deaths	
①食品加工用機械	Powder making machine	5	(0.3%)		
	Rice/wheat milling machine	2	(0.1%)	1	(1.4%)
	Noodle making machine	121	(8.1%)	13	(18.8%)
	Baking machine	165	(11.1%)	6	(8.7%)
	Confectionery making machine	141	(9.5%)	9	(13.0%)
	Beverage processing machine	8	(0.5%)	4	(5.8%)
	Brewing and processing machine	11	(0.7%)	1	(1.4%)
	Meat processing machine	270	(18.1%)	5	(7.2%)
	Seafood processing machine	171	(11.5%)	1	(1.4%)
	Vegetable/Fruit processing machine	337	(22.6%)	6	(8.7%)
	Processing machine for cooked rice and others	65	(4.4%)	4	(5.8%)
	Other machines	95	(6.4%)	13	(18.8%)
	sub-total	1,391	(93.5.%)	63	(91.3%)
Food packaging machine		90	(6.0%)	6	(8.7%)
Sorting machine		6	(0.4%)		
Total		1,487	(100.0%)	69	(100.0%)

①食品加工用機械

Food processing machines

OLooking at details

① “Cutting/slicer” part of vegetable/fruit processing machine

② “Cutting/slicer” part of the meat processing machine

③ “Cutting/slicer” part of the baking machine

④ “Cutting/slicer” part of the seafood processing machine

⑤ “Roller” part of the noodle making machine

Most of the accidents that occurred are from the “Cutting/Slicing” part of the machine.

Graph: Breakdown of lost work cases by type of machine/ type of machine part (Only from food processing machines)

	Total		Slicing/Cutting (Slicer, handsaw etc)		Mixing/Stirring/ Grinding/Crushing		Shaping/Die cutting/Compressing		Rolling		Others	
Powder making machine	5	(0.3%)			3	(60.0%)	1				1	
Rice/wheat milling machine	2	(0.1%)									2	
Noodle making machine	121	(8.1%)	26	(21.5%)	28	(23.1%)			37	(30.6%)	30	(24.8%)
Baking machine	165	(11.1%)	93	(56.4%)	8	(4.8%)	1		30	(18.2%)	33	(20.0%)
Confectionery making machine	141	(9.5%)	25	(17.7%)	29	(20.6%)	7	(5.0%)	19	(13.5%)	80	(56.7%)
Beverage processing machine	8	(0.5%)			1						7	
Brewing and processing machine	11	(0.7%)			8	(72.7%)					3	
Meat processing machine	270	(18.1%)	179	(66.3%)	40	(14.8%)	3	(1.1%)	2		46	(17.0%)
Seafood processing machine	171	(11.5%)	64	(37.4%)	17	(9.9%)	9	(5.3%)	8	(4.7%)	73	(42.6%)
Vegetable/Fruit processing machine	337	(22.6%)	246	(73.0%)	36	(10.7%)	2		6	(1.8%)	47	(13.9%)
Processing machine for cooked rice and others	65	(4.4%)	7	(10.8%)	9	(13.8%)	33	(50.8%)			16	(24.6%)
Other machines	95	(6.4%)	10	(10.5%)	5	(5.3%)	8	(8.4%)	6	(6.3%)	66	(69.5%)
Total	1,391	(93.5%)	650(43.7%)		184	(12.4%)	64	(4.3%)	108	(7.3%)	385	(25.9%)

4 Type of moving parts

Slicers and cutters represent more than 40% of the cases.

OWith regard to lost work time, more than 40% are from "①moving parts for slicing and cutting" which had 650 cases (43.7%) while "②moving parts for mixing/stirring/grinding/crushing" had 184 cases (12.4%) and "③Rolling" had 108 cases (7.3%).

OWith regard to incidences of death, "①moving parts for mixing/stirring/grinding/crushing" which had

30 cases (43.5%) while "②Supply, compressed supply, conveyor belt parts" had 8 cases (11.6%) These 2 types represent more than half of all cases.

Graph: Type of moving parts (only for food processing machines)

Type of Machine	Lost work time		Deaths	
Slicing/Cutting	650	(43.7%)	4	(5.8%)
Supply/Compressed supply/ Conveyor belt	58	(3.9%)	8	(11.6%)
Mixing/Stirring/Crushing/Grinding	184	(12.4%)	30	(43.5%)
Shaping/Die cutting/compressing	64	(4.3%)	1	(1.4%)
Rolling	108	(7.3%)		
Firing/Heating/Heat processing	26	(1.7%)		
Skinning	29	(1.9%)		
Belts/Pulley/Gear/Chain/etc	45	(3.0%)	2	(2.9%)
others	113	(7.6%)	12	(17.4%)
Unknown/Not involving moving parts	114	(7.7%)	6	(8.7%)
Total	1,391	(93.5%)	63	(91.3%)

5 Type of work

Other than work in food processing, non routine work such as cleaning/removal represent more than 40%

○With regard to lost work time, "① "processing/packaging/sorting" had 751 cases (50.5%) while "②Cleaning/removal" had 537 cases (36.1%) These two types represent about 90% of all cases.

○ With regard to incidences of death "①cleaning/removal" had 26 cases (37.7%) while "② processing/packaging/sorting" had 16 cases (23.2%)

Graph: Type of work

Type of work	Lost work time		Deaths	
Pre-work arrangements	24	(1.6%)	5	(7.2%)
Checking machine operation	10	(0.7%)	5	(7.2%)
Measuring/Adjusting	23	(1.5%)	2	(2.9%)
Processing/Packaging/Sorting	751	(50.5%)	16	(23.2%)
Troubleshooting	91	(6.1%)	8	(11.6%)
Maintenance/Inspection/Repairing	27	(1.8%)	2	(2.4%)
Cleaning/Removal	537	(36.1%)	26	(37.7%)
Others	11	(0.7%)	2	(2.9%)
Unknown	13	(0.9%)	3	(4.5%)
Total	1,487	(100.0%)	69	(100.0%)

6　Type of injury

Accidents resulting in disabilities such as finger amputations are common

○With regard to Lost work time, the number of cases from "amputations" are 309 cases (20.8%) and the number of "Crush injury" are 50 cases (3.4%). Both incidences represent a quarter of all the cases and these types of accidents are the most likely to cause disabilities.

Other types of injury include cuts, bruising and bone fractures.

Graph: Type of injury (unable to work for more than 4 days)

	Number of cases	
Amputation	309	(20.8%)
Crush injury	50	(3.4%)
Cuts	482	(32.4%)
Bruising	166	(11.2%)
Bone fracture	207	(13.9%)
Burns	53	(3.6%)
Others	109	(7.3%)
Unknown	111	(7.5%)
Total	1,487	(100.0%)

7　Severity

Since the possibility of getting injured is high from moving parts from "Mixing/Stirring/Crushing/Grinding machines" and "Slicing/Cutting machines" , this has become a high priority issue.

○Estimated number of lost working days per year,

①) Meat processing machines (48.1×10^3days per year)

②Vegetable/Fruit processing machine (36.6×10^3days per year)

③Confectionery making machine (24.6×10^3days per year)

④Seafood processing machine (24.2×10^3days per year)

⑤Noodle making machine (23.2×10^3days per year)

These represent about 70% of total lost working days.

Graph: Breakdown of machinery by type and severity (number of Lost work days)

		Number of cases and ratio		Risk ranking and number of Lost work days	
①食品加工用機械	Flour milling machine	5	(0.3%)	13th	0.6×10^3
	Rice/Wheat milling machine	2	(0.1%)	12th	1.5×10^3
	Noodle making machine	121	(8.1%)	5th	23.2×10^3
	Baking machine	165	(11.1%)	8th	12.3×10^3
	Confectionery making machine	141	(9.5%)	3rd	24.6×10^3
	Beverage processing machine	8	(0.5%)	10th	4.1×10^3
	Brewing and processing machine	11	(0.7%)	11th	3.1×10^3
	Meat processing machine	270	(18.1%)	1st	48.1×10^3
	Seafood processing machine	171	(11.5%)	4th	24.2×10^3
	Vegetable/ Fruit processing machine	337	(22.6%)	2nd	36.6×10^3
	Processing machine for cooked rice and others	65	(4.4%)	9th	8.6×10^3
	Other machines	95	(6.4%)	6th	20.0×10^3
Food packaging machine		90	(6.0%)	7th	16.7×10^3
Sorting machine		6	(0.4%)	14th	0.6×10^3
Total		1,487	(100.0%)		223.6×10^3

①食品加工用機械

Food processing machine

O、Looking at the type of parts,

①Slicing/Cutting parts such as slicers and handsaws (Lost working days 92.1×10^3days per year)

②Mixing/Stirring/Crushing/Grinding parts such as mincers/mixers (Lost working days 46.9×10^3days per year)

These represent about 60% of all cases

Graph: Breakdown of type of moving parts/severity (number of lost working days (top 7)

Type of part	number of cases and ratio of lost working time		Deaths		Ranking and lost work days	
Slicing/Cutting	650	(43.7%)	4	(5.8%)	1st	(92.1×10^3)
Mixing/Stirring/Crushing/Grinding	184	(12.4%)	30	(43.5%)	2nd	(46.9×10^3)
Rolling	108	(7.3%)	0	(0.0%)	3rd	(12.1×10^3)
Shaping/Die cutting/Compressing	64	(4.3%)	1	(1.4%)	5th	(9.4×10^3)
Supply/Compressed supply/ Conveyor belt	58	(3.9%)	8	(11.6%)	4th	(9.6×10^3)
Belt/Pully/Gear/Chain/etc	45	(3.0%)	2	(2.8%)	6th	(7.8×10^3)
Skinning	29	(2.0%)	0	(0.0%)	7th	(1.1×10^3)

(Source: Ministry of Health, Labour and Welfare "Directive")

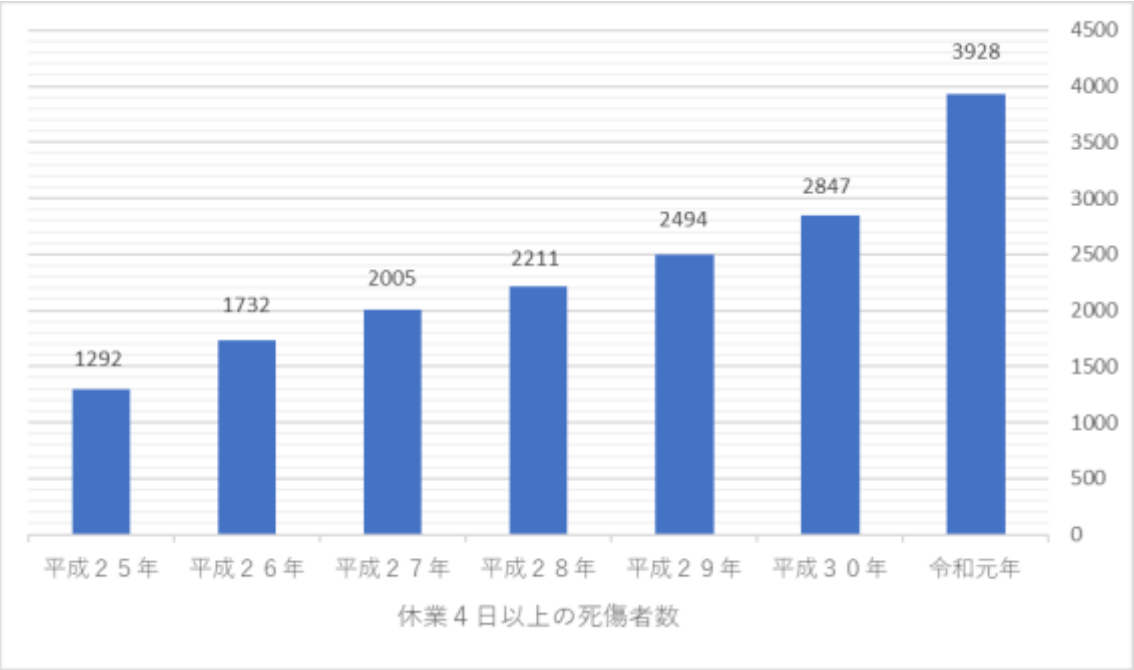
File 3 Accidents involving technical intern trainees

Type	Case example	
Caught in or in between	Eg. 1	The worker's apron was pulled into the machine resulting in the worker being asphyxiated and eventually caused death.
	Eg. 2	When a worker tried to pick up food from below, the worker's right hand got caught by the automatic packaging machine's conveyor belt resulting in injury.
	Eg. 3	A coworker notified another worker who was cleaning the machine before beginning operation however, the cleaner did not notice and got injured when the worker's hand got caught by the machine.
	Eg. 4	While trying to take away an incomplete food portion on the conveyor belt, the worker's glove got caught by the chain resulting in the worker getting injured.
	Eg.5	A worker tried to stop stacked products that were placed beside a packaging machine from collapsing however, due to a defect, the machine was not covered and the worker's hand got caught in between the machine's chain which was in operation, resulting in the worker getting injured.
Cuts/Scratches	Eg. 6	While a worker was cleaning the slicer, another worker did not notice the worker who was cleaning the machine which caused the slicer to rotate, resulting injury to the left hand middle finger of the other worker.
	Eg. 7	Accidentally got cut by the blade when changing the position of the food while slicing.
	Eg. 8	Accidentally got cut by the blade when cleaning the filleting machine that was not turned off.
	Eg. 9	A worker's finger got cut by the mincer which was not fully stopped, when the worker tried to take off ingredients that got caught in the machine.
	Eg. 10	While assisting on seafood processing work (holding the fish steady), the worker's hand slipped resulting in the worker's left hand fingers getting injured.

	Eg. 11	While chopping vegetables, the worker’s hand slipped causing injury to the left middle finger
Falls	Eg. 12	While 2 workers were carrying a cardboard box, one of the workers who was walking backwards tripped on the floor pallet injuring the his bottom.
	Eg. 13	While doing cleaning work, the worker’s right foot and hips got injured when the worker’s foot got caught in an open gutter.
	Eg. 14	Whilst walking down the factory’s staircase from the 2nd floor to the 1st floor, the worker missed a step and landed awkwardly causing the worker’s foot to twist resulting in bone fracture.
Contact with high temperature objects and others	Eg. 15	A worker’s apron got caught on the handle of the miso soup pot causing the pot to turn over and spilling hot miso soup on the worker’s feet resulting in burns.
	Eg. 16	The worker’s long apron was not properly worn then hot water entered the worker’s boots causing burns.
	Eg. 17	A worker’s hand got burned when he put his hand in hot water meant for frostbite prevention while working on thawing frozen goods. (The worker did not add cold water to balance the temperature)
Reaction to motion/improper motion	Eg. 18	A worker’s back and hips were injured when trying to carry two cases of food (about 30 kg) by hand.
	Eg. 19	A worker’s left wrist was injured when weighing salad ingredients (about 20 kg) on a scale after stirring.
Contact with harmful substances	Eg. 20	while cleaning a pot, some detergent got into the worker’s eyes causing irritation (was not wearing goggles)
Others	Eg. 21	While doing measuring work in the steaming room, the worker suddenly felt unwell and collapsed. The worker did not stop shaking and was sent to the hospital. (heatstroke)

Changes in the number of occupational accidents involving foreign workers

単位：人



〇単位：人

Unit: number of people

〇休業４日以上の死傷者数

Number of injuries and deaths requiring more than 4 days of leave

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

※The format of the “Report on Worker Deaths and Injuries” was revised on January 8, 2019, where categories for nationality, region, and status of residence were added. As a result, the method of collecting the number of cases in 2019 is different from the method used until 2018.

File 4 Basic rules to be followed by technical intern trainees

Basic rules to be followed by technical intern trainees

1 Preparation before handling and working with food products

- ○ Follow the rules within the workplace in order to prevent food contamination and food poisoning. Remember that the products that you handle are foods that enter the human body.
- ○ Follow orders that are given in the workplace. If the order is unclear, it is ok to ask again.
- ○ Keep a clean appearance and keep safety in mind. Try to keep and maintain a healthy physical condition.

2 Preventing occupational hazards

- ○ Follow work procedures and methods and use the proper tools while working.
- ○ Even if you get used to your work, keep following work procedures and methods
- ○ When orders are not clear, do not hesitate to ask questions. Fully understand the order before working.
- ○ Do not work alone. Be sure there are others while working.
- ○ Check the machines and tools before beginning work. Ask before removing safety covers.
- ○ Use the designated protective gear.
- ○ When a problem occurs with the machine, stop the machine first then call your supervisor. Remember when a problem occurs to stop, call and wait.
- ○ Turn the power off and check to see that the machine has fully stopped before cleaning the machine.
- ○ Do not operate machines such as forklifts which require a license to operate.

- ○ When you feel a safety concern during work, report to your supervisor in order to prevent any accidents.
- ○ Health issues and other issues that worry you should be brought up to the person in charge of technical training, your trainer or lifestyle instructor.
- ○ Keep in mind the 4S. Seiri (Organize), Seiton(Tidy up), Seisou (Clean up), Seiketsu (Cleanliness)
- ○ Be careful on slippery floors

3 When you get injured during work

- ○ When you get injured during work, this will be covered by the Worker's Accident Compensation Insurance which you are able to apply for immediately.

When an accident occurs while working and when medical expenses occur, this will be paid to the hospital with the Worker's Accident Compensation Insurance.

When you are unable to work due to a work related accident, for the first 3 days, you will be compensated by the implementing organization. On the 4th day on-wards, you will be compensated using the Worker's Accident Compensation Insurance.

File 5 Examples of accidents and what we want for technical intern trainees to be careful of

【5－1】 Caught in or between (accidents involving machines)

When the belt conveyor stopped, a worker tried to clean the roller with a gauze and when another worker started the machine, the worker’ s arm got caught by the conveyor belt resulting in the worker getting injured.

• Problems with safety measures

○ The worker made decisions on his/her own without any instructions from supervisors. ○ The signal to resume work was not communicated to others ○ Did not have safety covers for places where there is a risk. ○ Emergency stop devices were not installed in potentially hazardous places.

• Measures made by implementing organization

○ Installed safety covers and emergency stop devices on belt conveyors at locations where there is a risk of getting caught and conduct thorough daily inspections to ensure that these devices are properly functioning. ○ Made sure to let other workers know that the machine will be stopped when cleaning or removing blocked materials in the machine. ○ Made sure when the machine is not in operation, to let other workers know not to be in contact with the machine before it is restarted. ○ Made sure that workers know where the stop button is located and make sure they are trained using the actual machine in order to be prepared when emergency situations happen such as a body part getting caught in the machine.

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

○ Do not pick up fallen objects under the machine or clean off dirt on the machine during routine work.
○ When a machine suddenly stops, do not touch the machine until given instructions.
○ Before starting work, make sure that the machine has safety covers in place and that the stop button is within reach.

【５－２】Cuts/Scratches

While slicing radishes with a slicer, the flow of radishes on the conveyor belt did not go smoothly, so the worker pushed the radishes vigorously with his hand in the direction of the rotating blade, and the worker’ s finger came in contact with the blade, resulting in injury.

• Problems with safety measures

- ○ The worker was not trained on how to properly stop the machine and how to properly use the necessary tools when fixing the machine.
- ○ The worker has gotten used to the work so he/she was no longer careful about the risks.

• Measures made by implementing organization

- ○ When doing maintenance work on the machine, it was made sure that the machine was stopped or the worker had the proper safety tools in place.
- ○ Let workers know that getting used to the work can lead to carelessness and loss of sense of safety.

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

- ○ Even when trying to fix a small problem with the machine, make sure that the machine is stopped and fix the machine as you were taught while using the proper safety tools.
- ○ When you get used to the work, this can lead to carelessness and accidents so make sure to be careful.

【5－3】 Falls

While carrying items in the kitchen, a worker slipped on leftover vegetables that were left on the floor and the worker fell down.

• Problems with safety measures

○ The floor was made of slippery materials.

○ The shoe sole was worn down.

○ The 4S(Seiri (Organize), Seiton(Tidy up), Seisou (Clean up), Seiketsu (Cleanliness)) activities were not followed.

○ The worker was not instructed on how to safely carry items.

• Measures made by implementing organization

○ Changed the flooring material to a less slippery one.

○ Use footwear that is not slippery and routinely check for wears and tears.

○ Had the 4S activities conveyed and understood.

○ Instructed on how to safely carry items.

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

○ Always check the work place, paths and the floor.

○ When you notice that the floor is slippery or there is a danger of tripping, notify your supervisor.

○ Even when you are in a hurry, avoid running.

○ Always bear in mind safety when carrying items. Use the proper method when carrying items alone, with 2 people, or while using a cart.

【５－４】Contact with high temperature objects (burns)

Injury occurred when the worker tried to move the cooking griddle using his/her bare hands. The iron plate was taken out of the oven just moments ago and the worker did not notice that it was still hot.

• Problems with safety measures

○ The worker did not check the iron plate before handling it with bare hands.

• Measures made by implementing organization

○ Made sure to use protective gloves when handling cookware that is heated such as iron plates. ○ Made sure to include “proper places to put cookware after use” and “notify others” about the work procedure.

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

○ Follow work procedures ○ Use the proper protective gloves depending on the work. ○ Be careful when handling cookware or water which may be hot.

【５－５】Struck by (collision with a forklift)

While a worker was moving, a forklift suddenly reversed and hit the worker

• Problems with safety measures

○ The driver of the forklift did not have a license and did not look around before reversing the forklift.

• Measures made by implementing organization

○ Have qualified personnel, such as those who have completed technical training, operate forklifts. ○ To prevent unqualified people from driving, always remove the key when leaving the driver's seat and keep it in an office that is supervised. ○ Ensure that operation routes　do not overlap with the worker' s paths. ○ Make sure that everyone who is involved is notified about the work plan. ○ Have a speed limit set when using the forklift. ○ Have safety signs about the forklift being in operation.

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

○ Since the forklift is heavier than a car, there is a possibility of dying if it collides with a person. Understand that it is a machine that can hurt people. ○ Make sure to check the paths where the forklift will pass through. ○ When you notice a forklift in operation nearby while working or passing through, be sure to keep a safe distance from the forklift.

【５－６】Cuts when handling a knife

While a worker is hastily cutting food with a knife, the worker got injured on the finger nail.

• Problems with safety measures

○ The worker was not properly trained on how to handle a knife

• Measures

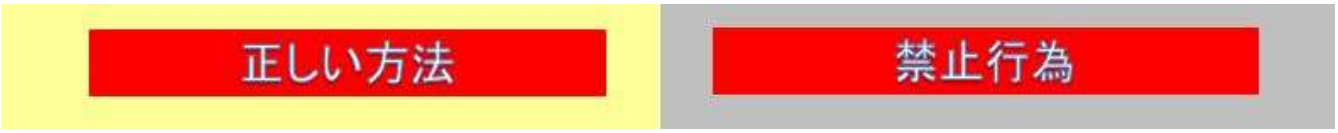
○ Create a work manual on how to safely use a knife. ○ Train workers on how to properly cut food depending on the food type. Also, if workers are not sure, instruct them to ask supervisors. ○ If a worker is unable to concentrate during work because of illness or other factors, make sure that the worker reports and discusses with supervisors before beginning work.

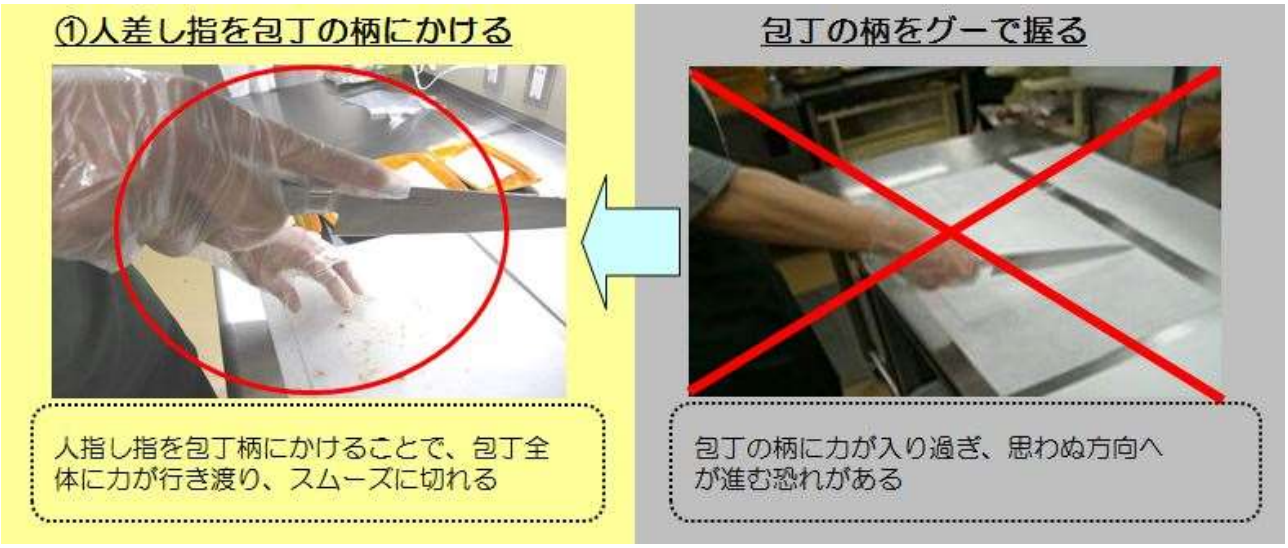
• What we want for technical intern trainees to be careful of

○ If you don’ t know how to handle or cut the food, do not hesitate to ask your supervisor. ○ When getting used to work, the sense of danger will decrease. Always handle the knife based on how you are trained to. ○ When you feel unwell, do not try to push yourself and please notify your supervisor.

File 6 Rules on handling knives

Proper handing　　Do not do this





×Gripping the handle of the knife using all fingers

×Putting too much grip pressure on the handle might lead to loss of control of the knife

OPlace your index finger on top of the knife

OPlacing your finger on the top increases handling making cutting easier.

×Placing an open hand/placing your hand in front of the knife

×Likelihood of injury occurring by placing your hand in front of the knife

○Clench your fist

○Clenching your fist may prevent accidents such as cuts

×Holding the knife without a blade cover

×This may result in injuring your hand and could hurt other people who are nearby.

OCover the knife with a sterile cloth before holding.

OThis may prevent you from getting hurt and may prevent accidents.

×Placing the knife in the sink/bowl

×The knife may be less visible when cleaning other utensils! This may cause an accident

OPlace used knife in storage or cover up.

ODecreases the chances of having contact with the knife = lessens the chances of accidents.

File 8 Chart showing details of amendments to the Industrial Safety and Health Regulations for Food Processing Machinery (enacted Oct 1st 2013)

● 機 械 ▲種類	◆安全衛生規則条文	【1】適用作業	【2】安全の措置（原 則）	【3】☆安全の措置の説明 ★望ましい事項等
A 共通	107	a:そうじ、給油、検査、修理に加え、調整も追加（危険を及ぼすおそれのある場合）	a:運転停止・起動装置に鍵・表示板 運転必要なら覆い	a:☆調整作業について、作業手順を定め、安全教育を行う b:★運転停止後の急ブレーキ機構
B 切断機・切削機	130 −2	a: 全 て	a:覆い囲い等(可動式ガード光線式安全装置を含む)	a:★開放時インターロック機構
	130 −3	b:原材料送給（危険を及ぼすおそれのあるとき）※1	b:運転停止又は用具等使用	b:☆用具：押し板取り出し用具など c:☆用具等の等：両手操作式制御装置、危険に応じた保護手袋 d:★運転停止後の急ブレーキ機構 e:★機械に専用の用具あればそれを使用
	130 −4	c:原材料取出（危険を及ぼすおそれのあるとき）※1	c:運転停止又は用具等使用	
C 粉砕機・混合機	130 −5−①	a:全て（開口部から転落による危険が生ずるおそれのあるとき）	a:高さ90cm以上の柵	a:☆柵等設置困難なら安全帯等使用
	130 −5−②	b:全て（開口部から可動部分に接触する危険が生ずるおそれのあるとき）※2	b:覆い囲い等(可動式ガード光線式安全装置を含む)	b:★開放時インターロック機構、巻き込まれ時離脱が容易な構造
	130 −6	c:原材料送給（危険を及ぼすおそれのあるとき、自動送給を除く）※3	c:運転停止又は用具等使用	c:☆用具等の等：可動部が鋭利でなく、ホールド・ツウ・ラン制御装置であり低速安全機能を有する場合を含む d:★運転停止後の急ブレーキ機構 e:★機械に専用の用具あればそれを使用
	130 −7	d:内容物取出（自動取り出しを除く）	d:運転停止又は用具等使用	
D ロール機	130 −8	a:全て（危険を及ぼすおそれのある部分）※4	a:覆い囲い等（可動式ガード・光線式安全装置・急停止装置を含む）	a:☆急停止装置使用時は囲い覆いは必要 b:★開放時インターロック機構、巻き込まれ時離脱が容易な構造
E 成形機・圧縮機	130 −9	a:全て（危険を及ぼすおそれのあるとき）※5	a:覆い囲い等（可動式ガード・光線式安全装置・両手操作式制御装置を含む）	a:★開放時インターロック機構

※1労働者に危険を及ぼすおそれのあるとき＝適用作業時に機械の可動部が労働者の手の届く範囲にある場合。

※2労働者に危険が生ずるおそれのあるとき＝労働者の身体の一部が機械の可動部分に届く場合。
ただし、駆動力等が軽微で身体を負傷させるに至らない場合は除く。

※3労働者に危険を及ぼすおそれのあるとき＝労働者の身体の一部が機械の可動部分に接触する可能性がある場合。
ただし、駆動力等が軽微で身体を負傷させるに至らない場合は除く。

※4労働者に危険を及ぼすおそれのある部分＝労働者の身体の一部が届くロール部が含まれる。
ただし、駆動力等が軽微で身体を負傷させるに至らない場合は除く。

※5労働者に危険を及ぼすおそれのあるとき＝労働者の身体の一部が機械の成形部又は圧縮部に届く場合が含まれる。
ただし、駆動力等が軽微で身体を負傷させるに至らない場合は除く。

● Machine

▲ Type

◆ Safety and Health regulations

A Common to all

【1】Applicable type of work

a: Cleaning, refueling, inspection, repair. In addition to this, maintenance (when there is a possibility of danger occurring)

【2】 Safety measures (in principle)

a: Stop operations/Lock the ignition device/place clear signs, cover up while operating.

【3】☆Explanation of safety measures ★Desired items

a: ☆With regard to maintenance work, have a work procedure in place and conduct safety training.

b: ★Emergency breaking mechanism after operation.

B Cutting machines/Slicing machines

【1】

a: All

b:Supplying ingredients (when there is a possibility of danger occurring) ※1

c:Removal of ingredients (when there is a possibility of danger occurring) ※1

【2】

a: Covers and enclosures (including gated safeguarding devices and photoelectric safeguarding devices)

b: Stopping operations or use of equipment

c: Stopping operations or use of equipment

【3】

a:★An interlock mechanism when opened

b:☆Equipment: equipment for taking off push plates

c:☆ Equipment such as : Two-hand control device, protective gloves based on the situation.

d:★Emergency breaking mechanism after operation.

e:★If a machine has special tools, use them.

C Crushers/Mixing machines

【1】

a: All (When there is a possibility of falling into the opening)

b: All (When there is a possibility of having contact with the opening up to the moving parts)※2

c:Supplying ingredients (When there is a possibility of danger occurring) ※3
d:Removal of contents (excluding automatic removal)

【2】
a: A fence with a height of more than 90cm
b: Covers and enclosures (including gated safeguarding devices and photoelectric safeguarding devices)
c: Stopping operations or use of equipment
d: Stopping operations or use of equipment

【3】
a:☆Use safety belts when unable to use fencing.
b:★An interlock mechanism when opened, structure to be easily removed when getting caught.
c:☆ Equipment such as: including, no sharp moving parts. using hold to run control devices with low speed safety function.
d:★Emergency breaking mechanism after operation.
e:★If a machine has special tools, use them.

D Rolling machines

【1】
a: All (Parts that may pose a risk)※4

【2】
a:Covers and enclosures (including gated safeguarding devices/photoelectric safeguarding devices and emergency stop devices)

【3】
a:☆Covers and enclosures are necessary when using emergency stop devices
b:★An interlock mechanism when opened, structure to be easily removed when getting caught.

E Shaping/Compressing machines

【1】
a: All (Parts that may pose a risk)※5

【2】
a:Covers and enclosures (including gated safeguarding devices/photoelectric safeguarding devices and emergency stop devices)

【3】
a:★An interlock mechanism when opened

※1 When there is a possibility of danger to the worker=when the worker’s hand is within reach of the machine’s moving parts while doing the designated work

※2 When there is a risk of danger to the worker = When a part of the worker's body is within reach of a moving part of the machine. However, this excludes cases where the machine’s operating power is so slight that it does not result in physical injury.

※3 When there is a risk of danger to the worker = When a part of the worker's body is within reach of a moving part of the machine. However, this excludes cases where the machine’s operating power is so slight that it does not result in physical injury.

※4 When there is a risk of danger to the worker = When a part of the worker's body is within reach of a roller part of the machine. However, this excludes cases where the machine’s operating power is so slight that it does not result in physical injury.

※5 When there is a risk of danger to workers=This includes cases where a part of the worker's body reaches the forming or compressing part of the machine. However, this excludes cases where the machine’s operating power is so slight that it does not result in physical injury.

File 9 Checklist of Measures to Prevent Workplace Accidents among Technical Intern Trainees (example)

When there is a check on the No column, make sure to improve and take immediate action! ※Check the box indicated □(Yes □・No□)

			Yes	No
1　安全衛生管理体制				
	①労働者数 50 人以上の事業場			
		(1) 安全管理者、衛生管理者を選任し、技能実習生の安全衛生対策にも取り組んでいますか。		
		(2) 産業医を選任し、職場巡視や健康相談の対象として、技能実習生の問題についても対応させていますか。		
		(3) 安全衛生委員会を毎月１回以上開催し、技能実習生の安全衛生対策についても審議していますか。		
		(4) 安全衛生委員会の議事録を技能実習生にも理解できるように周知させていますか。		
	②労働者数 50 人未満の事業場			
		(1) 安全衛生推進者を選任し、技能実習生の安全衛生対策にも取り組んでいますか。		
		(2) 技能実習生から安全衛生に関する意見を聴く機会を設けていますか。		
2　日々朝礼等で確認すべきこと				
		(1) 技能実習生に当日の作業内容と危険のおそれがある点について確認させていますか。		
		(2) 技能実習生を４Ｓ活動（整理・整頓・清掃・清潔）、ヒヤリ・ハット活動、危険予知（ＫＹ）活動に取り組ませていますか。		
		(3) 技能実習生が理解できる作業マニュアルはありますか。		
		(4) 技能実習生が理解できる安全標識はありますか。		
		(5) 職場巡視の際、技能実習生に危険等が生じていないか特に注意していますか。		
		(6) フォークリフトの運転は有資格者に行わせていますか。		
3　食品加工用機械等（以下機械等という）による災害の防止対策				

	⑴	作業開始前に機械等の安全点検を実施していますか。		
	⑵	技能実習生が使用する機械等の危険な部分に安全カバー等を設けていますか。		
	⑶	技能実習生が使用する機械等の開閉式の安全カバーにはインターロック機能(*)等を設けていますか。		
	⑷	技能実習生が使用する機械等について、身体の一部が機械等に巻き込まれたときに即時に操作できる位置に非常停止装置を設けていますか。		
	⑸	技能実習生に機械等を操作させる時には、周囲の安全を確認し、合図を行うよう教育していますか。		
	⑹	技能実習生に対して、機械等の清掃、洗浄、給油、点検、調整の際には、機械等を停止させることについて、実際の機械等を使用して説明するなどにより確実に理解できるように教育をしていますか。		
	(*) カバーが閉まっていない状態で機械等が運転しないように制御する機能			
４　転倒災害の防止対策				
	⑴	技能実習生に床面が水や油、食材がこぼれたまま状態のまま放置しないように教育していますか。		
	⑵	技能実習生に靴は滑りにくいものを履かせていますか。		
５　フォークリフト災害の防止対策				
	⑴	運行経路及び作業方法を示した作業計画を作成し、技能実習生にも周知していますか。		
	⑵	運転者が見えにくい場所には、運転中であることが技能実習生にもわかるような標識を設置していますか。		
	⑶	技能実習生に昇降等に使用することを禁止していますか。		
６　健康管理				
	⑴	技能実習生の雇入れ時に健康診断を実施していますか。		
	⑵	技能実習生に１年以内に１回、定期健康診断を実施していますか。		
	⑶	常時深夜業に従事する技能実習生に６か月以内ごとに１回、定期健康診断を実施していますか。		
	⑷	健康診断結果を技能実習生に通知していますか。		
	⑸	健康診断の有所見者である技能実習生について、医師から就業上の意見を聴取していますか。		

	⑹	技能実習生に時間外・休日労働時間を行わせている場合は時間数を正確に把握していますか。また、認定計画と相違なく、36 協定の範囲内としていますか。		
7　安全衛生教育				
	⑴	食品加工用機械の取扱い方法等について、技能実習生に教育した際、理解できているか確認していますか。		
	⑵	雇入れ又は作業内容を変更した技能実習生に安全衛生教育を実施していますか。		
	⑶	技能実習生に安全な服装、保護具の使用について教育を行い、実行できているか定期的に確認していますか。		
8　貴社独自のチェック項目を含めてみましょう				

※　Routine checks will be conducted during workplace patrols and health and safety commitee meetings, so check more than once.

1　Safety and health management

①workplaces with 50 or more workers

（1）Is there an appointed safety manager and health manager, and are they also working on safety and health measures for technical intern trainees?

（2）Is there an appointed industrial physician to conduct workplace inspections and health consultations, and deal with issues related to technical intern trainees?

（3）Are Health and Safety Committee meetings held at least once a month to discuss health and safety measures for technical intern trainees?

（4）Are the meeting records of Health and Safety Committee meetings made known to technical intern trainees and do they can understand them?

②Workplaces with less than 50 workers

（1）Is there an appointed safety and health promoter, and are they also working on safety and health measures for technical intern trainees?

（2）Are opportunities being given to hear the opinions of technical intern

trainees regarding health and safety?

２　Things to be confirmed at daily morning meetings

（１）Have technical intern trainees confirmed the content of the day's work and any potential hazards?

（２）Are technical intern trainees engaged in the 4S activities (Seiri, Seiton, Seiso, Seiketsu), Hiyari-Hatto activities, and hazard prediction (KY) activities?

（３）Is there a work manual that technical interns can understand?

（４）Are there safety signs that technical intern trainees can understand?

（５）During workplace patrols, is special attention given to technical intern trainees to make sure they are not in danger?

（６）Are forklifts operated by qualified personnel?

３　Measures to Prevent Accidents Caused by Food Processing Machinery, etc. (Referred to as ″Machinery, etc.″ from below)

（１）Are safety inspections on machinery etc being conducted before starting work?

（２）Are safety covers, etc. used on dangerous parts of the machinery that are operated by technical interns?

（３）Do the open/close safety covers of machines, used by technical trainees, have an interlock function* ?

（４）For machines used by technical intern trainees, are emergency stop devices installed in positions that can be operated immediately even if a part of the worker' s body is caught in the machine?

（５）Are technical intern trainees trained to check the safety of their surroundings and give a signal before operating machinery?

（６）Is the actual machine being used to train trainees on how to clean, wash, lubricate, inspect, turn off or do adjustments on the machine?

(*)　A function to control the machine so that it does not operate when the cover is not closed.

４　Measures to Prevent Falls

（１）Are trainees being told not to leave water, oil, or food spilled on the floor?

（２）Do trainees wear shoes that are slip-resistant?

5　Measures to Prevent Forklift Accidents

（1）Are work plans that show operation routes and work methods being prepared and Are these plans made known to trainees?

（2）In places where it is difficult for trainees to see the operator, are signs installed so that trainees can know that the operator is in operation?

（3）Are technical intern trainees being prohibited from using the equipment for lifting and lowering?

6　Health management

（1）Are health checkups conducted when technical intern trainees are hired?

（2）Are routine medical checkups being conducted for technical intern trainees at least once a year?

（3）Are routine medical checkups conducted once every 6 months for technical intern trainees who are engaged in late-night work?

（4）Are technical intern trainees notified of the results of their health examinations?

（5）For technical intern trainees whose medical checkup results show abnormal findings, are doctor's consulted about their employment?

（6） If technical intern trainees are required to work overtime or on holidays, are they notified about the number of hours? Are they consistent with the certification plan and does it follow the 36 agreement?

7　Health and safety education

（1）When trainees are instructed on how to handle food processing machines, do they fully understand the instructions and is this being checked?

（2）Are health and safety training provided for technical intern trainees who are newly hired or whose work content is changed? Is training provided on how to wear proper safety clothes and protective gear and is this routinely checked?

8　Include the company's safety check items as well.