Fatal and non-fatal accidents in electric/gas/water service in Japan in 1999-2021

electric/gas/water service industry Code No.0116

Type of accidents in electric/gas/water service in 1999-2021

Type of accidents	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Type of accidents
fall from height	29	30	37	37	40	29	45	23	34	32	34	22	27	35	29	23	40	22	30	28	32	40	39	737	fall from height
falling to same level	44	37	56	44	48	45	36	36	44	35	42	32	42	31	32	29	27	27	33	47	34	36	54	891	falling to same level
crash	13	11	8	11	12	8	8	6	7	12	7	7	6	5	7	7	11	4	3	10	3	10	9	185	crash
struck by flying or falling object	5	6	12	7	4	5	7	8	12	4	3	7	7	6	3	5	7	5	3	8	5	5	4	138	struck by flying or falling object
collapse	1	1	3	4	1	4		4		1		2	3	1	3	2		2	1	2	1	2	4	42	collapse
crashed by	5	5	8	3	4	2	4	1	5	3	1	6	3	1	3	6	2	3	6	2	4	5	8	90	crashed by
caught in/between	13	11	21	10	12	7	12	12	12	8	16	5	12	9	4	7	4	9	7	9	11	8	7	226	caught in/between
cut	5	4	4	6	2	6	4	5	4	3	6	2	6	8	4	5	3	1	1	4		3	3	89	cut
injury to the sole of the foot	1	1			2						1	1							1			1	1	9	injury to the sole
drown						2		2			1		6		1			1	1				1	15	drown
contact to high/low- temperature	4	3	5	7	5	5	1	5	7	6	6	7	3	2	3	5	1	5	3	3	3	6	8	103	contact to high/low- temperature

contact to harmful																									contact to
substance	2	4	1	7	1	2	1	3	1	1		3	1	2		1	3	1	1		1	4	1	41	harmful
																									substance
electric shock	4	4	2	3	2	1	6	1	1	3		2	1	6	1			1	1	3		3	1	46	electric shock
explosion	4	1			5	1							3											14	explosion
burst																						1	1	2	burst
fire			3			1	1	1			1						1					1		9	fire
traffic accident (public	34	39	40	42	52	36	30	19	33	27	25	18	16	25	24	26	23	18	24	21	21	13	12	618	traffic accident
road)	34	39	40	42	32	30	30	19	33	27	23	10	10	25	24	20	23	10	24	21	21	13	12		(public road)
traffic accident			1	1						1		2					1			2				8	traffic accident
(others)																	<u> </u>								(others)
reaction to																									reaction to
motion/improper	13	23	33	18	17	11	25	33	16	27	16	23	23	15	9	14	15	15	17	15	29	16	25	448	motion/improper
motion																									motion
others	3	4	4	3		6	4	4	8	3	1	3	6	3	2	2		4	5	4		28	73	170	others
unclassifiable	1	1	3	2	1		1				1	1	1											12	unclassifiable
total	181	185	241	205	208	171	185	163	184	166	161	143	166	149	125	132	138	118	137	158	144	182	251	3,893	total

Causal agents (large) of fatal and non-fatal accidents in electric/gas/water service in 1999-2021

Causal (L) agents	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021		Causal (L)
Causar (L) agents		2000	2001	2002	2003	2004	2003	2000	2007	2000	2003	2010	2011	2012	2013	2014	2013	2010	2017	2010	2013	2020	2021		agents
machine	3	8	11	8	5	8	8	9	8	8	8	5	9	15	2	6	8	8	4	4	4	6	7	162	machine
crane, conveying																									crane,

machine	47	49	51	55	63	45	36	33	47	40	43	33	33	31	29	29	28	22	30	33	27	24	25	853	conveying
machine																									machine
athor aguinment	18	25	37	26	34	16	31	25	23	30	20	17	20	21	25	18	21	13	23	24	16	30	32	545	other
other equipment	10	23	57	20	34	10	31	25	23	30	20	17	20	21	23	10	21	13	23	24	10	30	32	343	equipment
tompovom buildings																									temporary
temporary buildings, establishments	61	61	76	69	83	63	58	55	62	57	58	50	61	58	43	48	55	42	51	59	61	70	71	1,372	buildings,
establishments																									establishments
substance, material	11	10	13	14	4	9	14	11	14	6	5	8	8	4	5	5	6	4	3	3	4	7	7	175	substance,
substance, material			13				14							T						5				173	material
load	8	7	11	7	3	3	4	6	9	7	9	9	4	4	2	4	4	6	3	8	7	4	4	133	load
environment	18	8	18	13	6	13	18	12	8	8	10	5	19	5	12	14	10	12	8	18	15	11	18	279	environment
others	15	17	24	13	10	14	16	12	13	10	8	16	12	11	7	8	6	11	15	9	10	30	87	374	others
total	181	185	241	205	208	171	185	163	184	166	161	143	166	149	125	132	138	118	137	158	144	182	251	3,893	total

Causal agents (middle) of fatal and non-fatal accidents in electric/gas/water service in 1999-2021

Causal (M) agents	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Causal (M)
engine					1		1		1		1	1	1	2											engine
							<u>'</u>																		power
power transmission mechanism			2	1		1		1		1	1		3		1	3	2	2					1		transmission mechanism
woodworking machine			1	1		3		1	2		2		1	2		2			1	1		2	2	21	woodworking machine

construction machine	2		3		1	2	3	2	2	3	2	1	1	4			3		2		1	1	4	37	construction
																									machine
metal manufacturing																									metal
machine		1	2	1	1		1	1	1	1		2		2			1	1		1				16	manufacturing
																									machine
general machine	1	7	3	5	2	2	3	4	2	3	2	1	3	5	1	1	2	4	1	2	3	3		60	general
																									machine
mobile silviculture																									mobile
machine																		1						1	silviculture machine
crane	2		1		1			3	2		1	1	1	1]					1	1	3	1	19	crane
conveying machine	8	5	9	10	9	6	11	9	9	8	11	8	11	8	4	2	7	4	6	7	3	3	8	166	conveying
																									machine
vehicle	37	44	41	45	53	39	25	21	36	32	31	24	21	22	25	27	21	18	24	25	23	18	16	668	vehicle
pressure vessel	1		1	2	3	1	2	4	2		2	2		1	1	1		1	1	1		1	3	30	pressure vessel
chemical facilities																									chemical
enermed racinges																									facilities
welding equipment																									welding
weiding equipment																									equipment
kiln, caldron			1			1		1		2	1													6	kiln, caldron
alastvis asvinmant	4	6	9	4	7	1	7	4	3	5	1	6	3	5	2	1	1	1	1	4	1	6	2	84	electric
electric equipment	4	0	9	4				4	3	3	I	0	3	3		I	I			4	1	0		04	equipment
human power machine,			6	7	4	,	10	5	1	,	6	,	2		7	7	2		6		2	1	4	105	human power
tools	6	4	0		4	3				3	0	3	3	6			3	2	0	5	3		4	105	machine, tools

tools	3	6	14	8	11	10	8	5	10	13	5	4	8	6	10	4	11	7	10	13	11	16	17	210	tools
other equipments,	4	9	6	5	9		4	6	7	7	5	2	6	3	5	5	6	2	5	1	1	6	6		other equipments, facilities
temporary buildings, establishments	61	61	76	69	83	63	58	55	62	57	58	50	61	58	43	48	55	42	51	59	61	70	71		temporary buildings, establishments
hazards, harmful substances	6	6	6	10	1	7	2	5	6	2	1	4	4	1		3	2	2	2		1	5	3	79	hazards, harmful substances
materials	5	4	7	4	3	2	12	6	8	4	4	4	4	3	5	2	4	2	1	3	3	2	4	96	materials
load	8	7	11	7	3	3	4	6	9	7	9	9	4	4	2	4	4	6	3	8	7	4	4	133	load
natural environment	18	8	18	13	6	13	18	12	8	8	10	5	19	5	12	14	10	12	8	18	15	11	18	279	natural environment
other causal agent	6	10	4	3	2	4	7	3	7	2	2	3	2	2	2	2		2	6	2	2	27	74	174	other causal
no causal agent	8	7	17	9	7	8	9	9	5	8	5	13	10	9	5	6	6	8	9	6	8	3	12	187	no causal agent
unclassifiable	1		3	1	1	2			1		1							1		1			1	13	unclassifiable
total	181	185	241	205	208	171	185	163	184	166	161	143	166	149	125	132	138	118	137	158	144	182	251	3,893	total

Causal agents (small) of fatal and non-fatal accidents in electric/gas/water service in 1999-2021

Causal (S) agents	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Causal (S) agents

engine			1	1		1		1	1	1	2									8	engine
power transmission mechanism		2			1		1	1		3		1	3	2	2				1	17	power transmission mechanism
circular sawing machine						2		1		1	1									5	circular sawing machine
band sawing machine																					band sawing machine
wood planer machine																					wood planer machine
hollow chisel mortiser, wood borer																					hollow chisel mortiser, wood borer
chamfering machine, router, woodworking milling machine																					chamfering machine, router, woodworking milling machine
chain saw		1						1			1		1			1	1	2	1	9	chain saw
other woodworking machines					1								1						1	3	other woodworking machines
leveling, transporting or loading machine					1														1	2	leveling, transporting or loading machine
excavating machine		2	1	1		1	1	1	1										3	11	excavating machine
foundation work																					foundation work machine

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hardening machine																				hardening machine
demolition machine							1				1								2	demolition machine
vehicle for high lift work				2	1	1		1		1	3		3		2		1	1	16	vehicle for high lift work
other construction machines		1					1												2	other construction machines
lathe																				lathe
drill press, milling machine																				drill press, milling machine
grinding machine, buffing machine		1	1		1				2		1		1	1					8	grinding machine, buffing machine
power press				1															1	power press
forging pressure																				forging pressure
shearing machine																				shearing machine
other metal manufacturing machines		1				1	1				1					1			5	other metal manufacturing machines
centrifugal machine																				centrifugal machine
mixer, grinder		1			1			1			1								4	mixer, grinder
roll machine (except printingroll machine)														1				1	2	roll machine (except printingroll machine)
injection molding																				injection molding

machine																					machine
food manufacturing																					food manufacturing
machine																					machine
printing machine																					printing machine
industrial robot																					industrial robot
other general		2	2	3	3	2	3	1	1	3	4	1	1	2	3	1	2	3	2	39	other general
power machines									ļ.												power machines
felling machine															1					1	felling machine
mobile logging																					mobile logging
machine																					machine
skyline yarding																					skyline yarding
machine																					machine
other mobile																					other mobile
silviculture machine																					silviculture machine
crane		1	1			1											1			4	crane
mobile crane						1			1	1	1							1	3	8	mobile crane
derrick crane																					derrick crane
elevator, lift								1												1	elevator, lift
cargo lifting																					cargo lifting
appliance																					appliance
gondola																					gondola
lumberyard																					lumberyard
equipment, logging																					equipment, logging
cableway																					cableway

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simple skyline																						simple skyline
yarding equipment																						yarding equipment
other powered																						other powered
crane					3															1	4	crane
truck		8	6	9	8	5	5	5	3	7	5	3		6	2	3	2	2	2	4	85	truck
forklift			1					2	1							1					5	forklift
railway equipment																						railway equipment
conveyor		1	2	1		2	3	4	3	4	2	1	1	1	2	2	3	1		4	37	conveyor
loader						1			1												2	loader
straddle carrier																						straddle carrier
rough terrain hauler																						rough terrain hauler
other powered				1	1	1					1		1				2		1		8	other powered
conveying machines																					0	conveying machines
cars, bus,		40	53	25	20	35	30	30	24	20	21	23	26	21	17	24	24	22	16	15	486	cars, bus,
motorcycle		40		23	20	33		30	24	20	21	23	20	21	17	24	24		10		400	motorcycle
railway vehicle																						railway vehicle
other vehicles		1			1	1	2	1		1	1	2	1		1		1	1	2	1	17	other vehicles
boiler		1	2		2				1			1				1					8	boiler
pressure vessel				1																	1	pressure vessel
other pressure				1							1		1		1						17	other pressure
vessels				ı	2	2		2			ľ				1				I	3	17	vessels
chemical facilities																						chemical facilities
gas welding																						gas welding

equipment																						equipment
arc welding																						arc welding
equipment															<u> </u>							equipment
other welding																						other welding
equipment																						equipment
kiln, caldron		1					2	1													4	kiln, caldron
industrial dryer																						industrial dryer
other kiln, caldron					1																1	other kiln, caldron
transmission		3	1	2	2	1					3	2	1		1	1	3	1	5	1	27	transmission
electric power		4	6	5	1	2	4	1	6	3	2			1					1	1	37	electric power
facilities		-	O		1		4			3									<u> </u>	ľ	37	facilities
other electrical																						other electrical
equipment		2			I		l l														5	equipment
human power				1												1						human power
cranes																I					2	cranes
human power		5	3	7	2		1	2	1	2	2	3	4	2	2	1	2	3		2	44	human power
hauling equipment		5	3		2		ľ					3	4			ľ		3			44	hauling equipment
human power											1		1									human power
machine																					2	machine
hand tool		1	1	2	3	1	2	4	2	1	3	4	2	1		4	3		1	2	37	hand tool
ladder		13	8	8	3	6	8	5	4	3	5	8	3	10	5	8	11	4	8	12	132	ladder
slinging tool			1			1	2														4	slinging tool
other tools		1	2		2	3	3			5	1	2	1	1	2	2	2	7	8	5	47	other tools
other equipment,																						other equipment,

facilities	6		9	4	6	7	7	5	2	6	3	5	5	6	2	5	1	1	6	6	92	facilities
scaffolding	1		1	1	2	2			2	1	1	1								2	14	scaffolding
timbering			1																		1	timbering
stairs, landing stage	1	9	18	15	14	17	14	9	15	20	19	10	13	17	12	12	12	17	21	17	291	stairs, landing stage
opening	2		2	4		2	2	2		1	3	3	1	1	2	3		2	3	1	34	opening
roof, beam, haze, crossbeam, principal rafter			5		1			1		1	2				1		1	1	1	2	16	roof, beam, haze, crossbeam, principal rafter
working platform, boot board	4		4	5	7	3	3	5	4	4	2	2	1	4	2	4	4	1	3	3	65	working platform, boot board
passage	2	2	25	15	16	22	17	21	13	12	18	8	20	17	15	19	26	27	21	23	357	passage
building, establishment	1	9	20	12	10	10	17	14	13	17	6	16	7	11	6	8	7	6	9	10	218	building, establishment
other temporary buildings, establishments	9		7	6	5	6	4	6	3	5	7	3	6	5	4	5	9	7	12	13	122	other temporary buildings, establishments
explosive substance	1																				1	explosive substance
inflammable substance																						inflammable substance
inflammable gas	4			1	2	5			1	3	1		2		1	1		1	2	1	25	inflammable gas
harmful substance	1			1	3				2				1	2	1				1		12	harmful substance
radiation																						radiation
other hazards, harmful substances			1			1	2	1	1	1						1			2	2	12	other hazards, harmful substances

			 	 			<u> </u>			<u> </u>	1	1	<u> </u>									
metal material		5	3	2	1	5	3	2	3	2	3	2		2	1	1	1	3	2	1	42	metal material
lumber, bamboo		1		1		1				1		1		1			1			1	8	lumber, bamboo
stone, sand, substance				4	2	2	1	1		1			1								12	stone, sand, substance
other materials		1		5	3			1	1			2	1	1	1		1			2	19	other materials
load		8	3	4	5	8	6	6	8	4	3	2	4	4	6	3	7	6	4	3	94	load
machine/equipment as load		3			1	1	1	3	1		1						1	1		1	14	machine/equipment as load
natural ground, rock		3	2	3	4		2	2	1	1	1	4	2	2	2	2		4	3	3	41	natural ground,
standing tree		3	2	1		2		1		1	1	3	4	2			5		1		26	standing tree
water					2			2		10		1									15	water
abnormal environment														1					1	1	3	abnormal environment
high/cold temperature environment		1			1	1	1	1	2	1		1	2	1	4	2	2	2	3	4	29	high/cold temperature environment
other environments		11	2	14	5	5	5	4	2	6	3	3	6	4	6	4	11	9	3	10	113	other environments
other causal agent		4	2	7	3	7	2	2	3	2	2	2	2		2	6	2	2	27	74	151	other causal agent
no causal agent		17	7	9	9	5	8	5	13	10	9	5	6	6	8	9	6	8	3	12	155	no causal agent
unclassifiable		3	1			1		1							1		1			1	9	unclassifiable
total		241	208	185	163	184	166	161	143	166	149	125	132	138	118	137	158	144	182	251	3,151	total

Age	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Age
19 years old or less	3	3	3	2	2	1			1	1	1	1	4	1		1	2	1	1	2		2	2	34	19 years old or less
20-29	30	33	53	29	29	25	26	19	24	19	16	18	18	15	16	21	16	16	17	21	22	19	31	533	20-29
30-39	36	28	47	40	38	40	43	31	49	32	34	27	27	26	26	18	14	10	15	19	19	17	33	669	30-39
40-49	41	39	41	56	45	40	43	37	34	40	36	35	34	35	33	31	43	33	39	37	39	45	71	927	40-49
50-59	59	68	76	64	78	49	58	57	58	50	45	36	56	46	33	40	31	42	39	50	39	61	70	1,205	50-59
60 years old or	12	14	21	14	16	16	15	19	18	24	29	26	27	26	17	21	32	16	26	29	25	38	44	525	60 years old or
more														20							23			ll l	more
total	181	185	241	205	208	171	185	163	184	166	161	143	166	149	125	132	138	118	137	158	144	182	251	3,893	total

Workers' number of workplace of fatal and non-fatal accidents in electric/gas/water service in 1999-2021

Workers scale	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Workers scale
9 workers or less	24	12	31	17	21	14	26	19	16	10	14	9	11	18	10	4	15	13	12	13	19	17	20	365	9 workers or less
10-29	32	34	36	34	28	33	28	29	35	34	37	34	34	26	23	24	21	29	20	42	30	33	44	720	10-29
30-49	23	22	21	18	25	20	31	23	24	29	33	20	23	17	16	24	26	15	20	24	20	24	33	531	30-49
50-99	36	33	40	37	48	40	29	28	39	32	28	20	31	25	27	25	27	24	33	30	27	53	52	764	50-99
100-299	51	58	86	76	52	45	44	45	46	41	38	42	37	48	36	39	40	23	36	40	30	34	79	1,066	100-299
300 workers or	15	26	27	23	34	19	27	19	24	20	11	18	30	15	13	16	9	14	16	9	18	21	23	447	300 workers or
more																									more
total	181	185	241	205	208	171	185	163	184	166	161	143	166	149	125	132	138	118	137	158	144	182	251	3,893	total

Month	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Month
January	15	11	22	11	21	12	24	17	11	9	16	15	11	14	20	9	20	10	13	14	13	12	20	340	January
February	25	16	20	13	12	11	16	18	17	19	13	12	13	18	14	8	12	10	10	22	13	13	13	338	February
March	18	14	30	17	18	14	16	17	17	12	15	9	24	13	6	16	9	7	10	11	12	9	19	333	March
April	6	14	18	19	24	19	14	7	17	14	18	9	17	14	5	7	10	7	9	14	6	12	24	304	April
May	13	13	19	18	20	12	14	20	20	20	9	13	14	9	15	8	9	7	9	9	10	16	17	314	May
June	21	20	18	13	19	12	13	9	9	15	11	14	15	16	8	11	6	9	20	14	16	21	20	330	June
July	10	18	23	24	19	21	19	7	14	17	13	13	13	11	6	11	15	5	7	13	16	16	21	332	July
August	19	10	18	14	15	17	19	15	17	11	15	9	9	6	9	10	18	17	10	12	14	13	47	344	August
September	22	11	17	18	18	13	11	12	15	15	13	15	19	9	7	11	10	6	8	10	10	14	21	305	September
October	11	21	23	21	18	13	14	11	14	15	13	10	11	9	11	14	18	13	18	12	12	14	13	329	October
November	8	18	18	25	11	14	5	12	19	6	14	13	10	22	11	10	4	17	9	14	13	6	16	295	November
December	13	19	15	12	13	13	20	18	14	13	11	11	10	8	13	17	7	10	14	13	9	36	20	329	December
total	181	185	241	205	208	171	185	163	184	166	161	143	166	149	125	132	138	118	137	158	144	182	251	3,893	total

Prefecture of fatal and non-fatal accidents in electric/gas/water service in 1999-2021

Prefecture	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Prefecture
Hokkaido	6	7	7		14		14	8	11	10	9	5	3	3	1	7	5	6	9	9	10	9	8	161	Hokkaido
Aomori	3	2			1		2	1	3				1	1	4	3	1	1	1	3	4	2	3	36	Aomori
lwate			3		2			4	2		2	2	2	2				2	1	3	1		1	27	lwate

Miyagi	2	3	3	2	7	5	8	8	2		10	7	1	6	4	2	4	5	6	7	9	101	Miyagi
Akita			3		2		1	1	1	1	2	1		1	2	2	2	1			1	21	Akita
Yamagata	6	3	2	1	2	1		1	1	1	2	1	1		1		1	2		2	1	29	Yamagata
Fukushima	1	1	8	7	4	7	4	5	3	2	10	8	3	6	7	6	4	1	4	2	11	104	Fukushima
Ibaraki	3	2	2	3		1	5	3	2	1	4	4	3	2	1	1	1	3	2	2	2	47	Ibaraki
Tochigi	1	1	3	2	1			1	1		4	1	3	2			2		1	1	5	29	Tochigi
Gunma	1	1	5	1	1	3	4	1	3	2	4	3	2	1	2	2	2	1		1	1	41	Gunma
Saitama	7	8	9	3	7	8	5	6	4	8	5	4	4	7	3	4	2	5	2	6	8	115	Saitama
Chiba	9	12	8	15	12	5	14	1	9	4	4	5	1	9	11	8	10	8	5	9	5	164	Chiba
Tokyo	17	25	36	20	15	7	6	10	11	20	12	17	10	13	9	6	6	5	7	13	6	271	Tokyo
Kanagawa	14	23	25	18	10	12	8	18	16	11	20	8	14	8	10	9	19	13	6	9	13	284	Kanagawa
Niigata	1	1	6	5		2	4	3	4	6	3	2	2	2	5	2	2	3	3	3	7	66	Niigata
Toyama	3	3	6	2	2	3		3	1	4		3	3	4	1	2		2	2	3	8	55	Toyama
Ishikawa	4	2	2			1	2		2			2						3	3	2	4	27	Ishikawa
Fukui	2	1	3	1	2	1			3		3	1		4		3		3	1			28	Fukui
Yamanashi			1	3	1	1	1		1								1	1	1		1	12	Yamanashi
Nagano	1		3	1	1	5	6	1	1		1	5	2	2	3		3	4	3	3	4	49	Nagano
Gifu	3	5	3	5	1			4	2	1		2	2	1		2	1	3	7	3	3	48	Gifu
Shizuoka	8	6	10	5	4	2	7	9	6	1	3	3	1	2	6	6	4	6	2	5	3	99	Shizuoka
Aichi	15	7	9	11	10	11	7	8	5	16	12	9	13	12	11	3	6	10	6	8	7	196	Aichi
Mie	2	2	1	7	1	3	2	2	3	3	1	3	3	2	3	3	4	2	1	3		51	Mie
Shiga	3	3		2	4	2	1			1	1		1			1			2	1	2	24	Shiga
Kyoto	5	4	6	5	3	2	2	2	3	1	3	6	2	6	5	4		2	2	4	3	70	Kyoto

Osaka	17	21	10	19	11	20	26	15	22	9	10	11	6	3	7	6	11	14	7	11	50	306	Osaka
Hyogo	12	6	12	9	9	13	13	10	12	4	7	4	7	2	5	3	9	9	11	9	18	184	Hyogo
Nara	2	1	2		1	1	1	1	6	1	1	2	1	3	4	2	2	2	2	1	3	39	Nara
Wakayama		1		2	3		1	3	1	1	2	2	2	1		1			2	1	2	25	Wakayama
Tottori		2	1	1		1	1				1			1	1		1				1	11	Tottori
Shimane			1			2				2	1		1		1	1				1		10	Shimane
Okayama	1		2	4			4	5		2		1	1	1	1	1	2	3	1	1	3	33	Okayama
Hiroshima	2	5	5	6	11	7	7	3	2	5	5	5	6	4	1	3	7	6	5	35	6	136	Hiroshima
Yamaguchi		3	1	4	4	2		2	1	4	4	2	1	2	1	3	1	1	2	2	4	44	Yamaguchi
Tokushima		1			2			1		1					1	2			1	2	1	12	Tokushima
Kagawa		2	3		2	3	2	3	1	2	2	3	4	2	4		3	1	2	1	1	41	Kagawa
Ehime	3	1	1	1	1			3	2	1		3	1		2	3	2	1			3	28	Ehime
Kochi	2	1	1	2	4		1	1				2	1	1	2	2		1	2		1	24	Kochi
Fukuoka	6	9	9	16	10	7	6	12	12	9	8	5	7	3	5	7	6	7	14	9	14	181	Fukuoka
Saga	1	1	2	1	2		2		1	1	1	1	5	1	1		2		1	1	1	25	Saga
Nagasaki	1	3	5	3	3	4	4	4	2		2		1	2			1	2	4	1	4	46	Nagasaki
Kumamoto	8	1	4		3		3	1	2	1	4	1	1	2		3	2	2		4	10	52	Kumamoto
Oita		1	2	2	2	1				5	5	4		1	4			3	3	2	1	36	Oita
Miyazaki	5	1	6		5	1		1					1		3	3	1	2	1	2	4	36	Miyazaki
Kagoshima	1	2	8	1	4	5	5	2	2	5	2	2	3	3	5	2	2	3	4	1	6	68	Kagoshima
Okinawa	3	1	2	1	2	1	5	2			1					1		3	1		2	25	Okinawa
total	181	185	241	208	185	163	184	166	161	143	166	149	125	132	138	118	137	158	144	182	251	3,517	total

Fatal and non-fatal accidents mean fatal and non-fatal injuries and occupational diseases with work absence of 4 days and more. Data of 2011 year include fatal and non-fatal accidents caused by Great East Japan Earthquake in 2011.

Data sources: https://anzeninfo.mhlw.go.jp/user/anzen/tok/anst00.htm (MHLW, Japan)

Return to https://www.jisha.or.jp/english/statistics/2021e_industry.html

Fatal accidents in electric/gas/water service in Japan in 1999-2021

electric/gas/water service industry Code No.0116

Type of fatal accidents in electric/gas/water service in 1999-2021

Type of accidents	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Type of accidents
fall from height			1		1		2		2	1		2	1			1	1		1			3	1	17	fall from height
falling to same level																		1	1					2	falling to same
crash								1																1	crash
struck by flying or falling object								3							1									4	struck by flying or falling object
collapse		1																				1		2	collapse
crashed by																									crashed by
caught in/between		1							1										1					3	caught in/between
cut																									cut

l <u></u> _				 															 				
injury to the sole of the foot																							injury to the sole
drown					1		2	1		1		8					1	1			1	16	drown
contact to high/low- temperature																1						1	contact to high/low- temperature
contact to harmful substance	1	1			2		1									2						7	contact to harmful substance
electric shock		1			1				1													3	electric shock
explosion																							explosion
burst																							burst
fire			1																			1	fire
traffic accident (public road)	1	1											1									3	traffic accident (public road)
traffic accident (others)																							traffic accident (others)
reaction to motion/improper motion														1								1	reaction to motion/improper motion
others											1	2			1							4	others
unclassifiable			1														1					2	unclassifiable
total	2	5	3	1	4	2	7	4	2	1	3	11	1	2	2	4	3	4		4	2	67	total

Causal (L) agents	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2 2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Causal (L) agents
machine																									machine
crane, conveying machine	1	2						1	1					1					1					7	crane, conveying machine
other equipment		1				1		2		1		1	1		1							1	1	10	other equipment
temporary buildings, establishments			1		1		2		2	1		1				1	1	1	3			2			temporary buildings, establishments
substance, material	1	1	1			2		1									1							7	substance, material
load								1																1	load
environment		1				1		2	1		1		9		1	1	2	1				1		21	environment
others			1									1	1					1					1	5	others
total	2	5	3		1	4	2	7	4	2	1	3	11	1	2	2	4	3	4			4	2	67	total

Causal agents (middle) of fatal accidents in electric/gas/water service in 1999-2021

Causal (M) agents	1000	2000	2001	2002	2003	2004	2005	2006	2007	2008	2000	2010	2011	2012	2013	2014	2015	2016	2017	2018	2010	2020	2021	total	Causal (M)
ausai (M) ageilts	1999	2000	2001	2002	2003	2004	2003	2000	2007	2008	2009	2010	2011	2012	2013	2014	2013	2010	2017	2010	2019	2020	2021	totai	agents

engine																engine
power transmission mechanism																power transmission mechanism
woodworking machine																woodworking machine
construction machine																construction machine
metal manufacturing machine																metal manufacturing machine
general machine																general machine
mobile silviculture machine																mobile silviculture machine
crane																crane
conveying machine		1				1						1			3	conveying machine
vehicle	1	1			1				1						4	vehicle
pressure vessel					2										2	pressure vessel
chemical facilities																chemical facilities
welding equipment																welding equipment

kiln, caldron 1 1 1 1 1 1 1 1 1 5 human power machine, tools 1 1 1 1 1 1 1 2 1 1 1 1 1 2 1 <th>kiln, caldron electric equipment human power machine, tools tools other equipments, facilities</th>	kiln, caldron electric equipment human power machine, tools tools other equipments, facilities
human power machine, tools 1 1 2 1 </td <td>equipment human power machine, tools tools other equipments,</td>	equipment human power machine, tools tools other equipments,
tools tools tools 1 1 1 1 1 1 1 1 1 1 1 1 1	tools other equipments,
tools	other equipments,
other equipments, facilities 1 1 2 2 1 1 1 1 3 2 16 hazards, harmful 1 1 1 2 1 1 7	other equipments,
facilities	equipments,
	7
	temporary buildings, establishments
	hazards, harmful substances
materials	materials
load 1	load
natural environment 1 1 2 1 1 9 1 1 2 1 21	natural environment
other causal agent	other causal agent
no causal agent	
unclassifiable 1 1 1 2	no causal agent

total	2	5	3		1		2	7	4	2	1	3	11	1	2	2	4	3	4			4	2	67	total	
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Causal agents (small) of fatal accidents in electric/gas/water service in 1999-2021

Causal (S) agents	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Causal (S) agents
engine																									engine
power transmission																									power transmission
mechanism																									mechanism
circular sawing																									circular sawing
machine																									machine
band sawing																									band sawing
machine																									machine
wood planer																									wood planer
machine																									machine
hollow chisel																									hollow chisel
mortiser, wood																									mortiser, wood
borer																									borer
chamfering																									chamfering
machine, router,																									machine, router,
woodworking																									woodworking
milling machine																									milling machine
chain saw																									chain saw
other woodworking																									other woodworking
machines																									machines

leveling,												leveling,
transporting or												transporting or
loading machine												loading machine
excavating machine												excavating machine
foundation work												foundation work
machine												machine
hardening machine												hardening machine
demolition machine												demolition machine
vehicle for high lift												vehicle for high lift
work												work
other construction												other construction
machines												machines
lathe												lathe
drill press, milling												drill press, milling
machine												machine
grinding machine,												grinding machine,
buffing machine												buffing machine
power press												power press
forging pressure												forging pressure
hammer												hammer
shearing machine												shearing machine
other metal												other metal
manufacturing												manufacturing
machines												machines

centrifugal machine														centrifugal machine
mixer, grinder														mixer, grinder
roll machine (except printingroll machine)														roll machine (except printingroll machine)
injection molding machine														injection molding machine
food manufacturing machine														food manufacturing machine
printing machine														printing machine
industrial robot														industrial robot
other general power machines														other general power machines
felling machine														felling machine
mobile logging machine														mobile logging
skyline yarding machine														skyline yarding machine
other mobile silviculture machine														other mobile silviculture machine
crane														crane
mobile crane														mobile crane
derrick crane														derrick crane
elevator, lift														elevator, lift
	11		11	11								11		

cargo lifting																cargo lifting
appliance																appliance
gondola																gondola
lumberyard																lumberyard
equipment, logging																equipment, logging
cableway																cableway
simple skyline																simple skyline
yarding equipment																yarding equipment
other powered																other powered
crane																crane
truck												1			1	truck
forklift																forklift
railway equipment																railway equipment
conveyor		1				1									2	conveyor
loader																loader
straddle carrier																straddle carrier
rough terrain hauler																rough terrain hauler
other powered																other powered
conveying machines																conveying machines
cars, bus,	1	1			1				1						4	cars, bus,
motorcycle	1								1						4	motorcycle
railway vehicle																railway vehicle
other vehicles																other vehicles
boiler					2										2	boiler

pressure vessel														pressure vessel
other pressure														other pressure
vessels														vessels
chemical facilities														chemical facilities
gas welding														gas welding
equipment														equipment
arc welding														arc welding
equipment														equipment
other welding														other welding
equipment														equipment
kiln, caldron														kiln, caldron
industrial dryer														industrial dryer
other kiln, caldron														other kiln, caldron
transmission			1				1	1					3	transmission
electric power					1								1	electric power
facilities					•									facilities
other electrical	1												1	other electrical
equipment													<u> </u>	equipment
human power														human power
cranes														cranes
human power														human power
hauling equipment														hauling equipment
human power														human power
machine														machine

hand tool																	hand tool
ladder							1							1		2	ladder
slinging tool																	slinging tool
other tools																	other tools
other equipment,															1	1	other equipment,
scaffolding																	scaffolding
timbering																	timbering
stairs, landing stage												1		1		2	stairs, landing stage
opening				2						1		1				4	opening
roof, beam, haze, crossbeam, principal rafter																	roof, beam, haze, crossbeam, principal rafter
working platform,							1									1	working platform, boot board
passage														1		1	passage
building, establishment		1	1		2	1			1		1	1				8	building, establishment
other temporary buildings, establishments																	other temporary buildings, establishments
explosive substance																	explosive substance
inflammable substance																	inflammable substance

inflammable gas			1													1	inflammable gas
harmful substance	1	1			2	1						1				6	harmful substance
radiation																	radiation
other hazards,																	other hazards,
harmful substances																	harmful substances
metal material																	metal material
lumber, bamboo																	lumber, bamboo
stone, sand,																	stone, sand,
substance																	substance
other materials																	other materials
load						1										1	load
machine/equipment																	machine/equipment
as load																	as load
natural ground,																	natural ground,
rock																	rock
standing tree										1					1	2	standing tree
water					1	2	1	1	9							14	water
abnormal																1	abnormal
environment																	environment
high/cold																	high/cold
temperature												1				1	temperature
environment																	environment
other environments		1									1		1			3	other environments
other causal agent																	other causal agent

no causal agent											1	1					1					3	no causal agent
unclassifiable			1																		1	2	unclassifiable
total	2	5	3	1	4	2	7	4	2	1	3	11	1	2	2	4	3	4		4	2	67	total

Workers age of fatal accidents in electric/gas/water service in 1999-2021

Age	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Age
19 years old or less																									19 years old or less
20-29	1	2				1							3		1	1								9	20-29
30-39			1			2	1	1	1	1			1											8	30-39
40-49	1	1			1							1		1	1		2	1	1					10	40-49
50-59		1	2			1	1	4	2		1	2	5			1	2	2				2	2	28	50-59
60 years old or more		1						2	1	1			2						3			2		12	60 years old or more
total	2	5	3		1	4	2	7	4	2	1	3	11	1	2	2	4	3	4			4	2	67	total

Workers' number of workplace of fatal accidents in electric/gas/water service in 1999-2021

Workers scale	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Workers scale
9 workers or less	1	1	1					1		1		1	1	1	1	1		1	1				1	13	9 workers or less
10-29		1	1			1	2	3	1		1	1	2				1		2					16	10-29
30-49			1					1	1				2			1	1	1						8	30-49
50-99		2			1	2			2								1					1	1	10	50-99
1	$\overline{}$									$\overline{}$		$\overline{}$													

100-299	1				1		1		1			4		1				1		2		12	100-299
300 workers or		1					1				1	2				1	1			1		0	300 workers or
more		I					ı				I	2										8	more
total	2	5	3	1	4	2	7	4	2	1	3	11	1	2	2	4	3	4		4	2	67	total

Month of fatal accidents in electric/gas/water service in 1999-2021

Month	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Month
January		1									1				1							2		5	January
February						1		1	1				1		1				1					6	February
March	1							1					7	1			1							11	March
April							1	2				1				1	1	1	1					8	April
May					1																		1	2	May
June			1							1														2	June
July	1											1										1		3	July
August						2			1							1	2						1	7	August
September								3	1				2					1						7	September
October		2				1	1			1									1			1		7	October
November		1	2															1						4	November
December		1							1			1	1						1					5	December
total	2	5	3		1	4	2	7	4	2	1	3	11	1	2	2	4	3	4			4	2	67	total

Prefecture	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Prefecture
Hokkaido						1				1								1	1					4	Hokkaido
Aomori																									Aomori
wate								1					1											2	lwate
Miyagi													4											4	Miyagi
Akita																	1							1	Akita
Yamagata		1																						1	Yamagata
Fukushima													4											4	Fukushima
baraki																									Ibaraki
Tochigi																									Tochigi
Gunma									1															1	Gunma
Saitama							1							1										2	Saitama
Chiba	1								1							1								3	Chiba
Гокуо										1							1							2	Tokyo
Kanagawa	1																							1	Kanagawa
Niigata															1									1	Niigata
Гоуата																						1	1	2	Toyama
shikawa																									Ishikawa
Fukui													1					1						2	Fukui
Yamanashi																									Yamanash
Nagano								1																1	Nagano
Gifu																									Gifu

Shizuoka																1		1	Shizuoka
Aichi						3											1	4	Aichi
Mie							1											1	Mie
Shiga																			Shiga
Kyoto																			Kyoto
Osaka	2	1	1	2										1				7	Osaka
Hyogo		1				2												3	Hyogo
Nara								1										1	Nara
Wakayama																			Wakayama
Tottori																			Tottori
Shimane																			Shimane
Okayama																			Okayama
Hiroshima					1				1	1		1				2		6	Hiroshima
Yamaguchi													1	1				2	Yamaguchi
Tokushima	1																	1	Tokushima
Kagawa																			Kagawa
Ehime									1		1	1						3	Ehime
Kochi				1														1	Kochi
Fukuoka	1								1					1				3	Fukuoka
Saga																			Saga
Nagasaki																			Nagasaki
Kumamoto																			Kumamoto
Oita																			Oita

Miyazaki																							Miyazaki
Kagoshima			1												1							2	Kagoshima
Okinawa								1														1	Okinawa
total	2	5	3	1	4	2	7	4	2	1	3	11	1	2	2	4	3	4		4	2	67	total

Data sources: https://anzeninfo.mhlw.go.jp/user/anzen/tok/anst00.htm (MHLW, Japan)

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