

Fatal and non-fatal accidents in city gas service in Japan in 1999-2021

city gas service industry Code No.011602

Type of accidents in city gas 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	11	11	15	19	16	11	16	6	7	6	12	3	7	4	10	3	11	3	2	6	12	11	9	211	fall from height
falling to same level	21	23	20	24	24	14	22	12	18	17	10	12	11	10	16	8	8	9	11	13	7	16	20	346	falling to same level
crash	6	6		4	6	3	4	2	2	3	3	1	3	2	1	2	2	2	1	7		1	5	66	crash
struck by flying or falling object	3	3	5	3	1	2		3	5	2	1	1	4	2		2	2	1		1	1	2		44	struck by flying or falling object
collapse			1	3		1						1	1	1		2		1		1			2	14	collapse
crashed by		3	4	1	1			1	1			2		1	1	1		2	2	1	2	2	3	28	crashed by
caught in/between	7	3	4	4	6	1	3	6	1	2	3	1	3			1	1	4	2	2		1	2	57	caught in/between
cut	4	1	2	1	1		1		3	1	1		1	2		1								19	cut
injury to the sole of the foot	1				1																		1	3	injury to the sole of the foot
drown													1											1	drown
contact to high/low-temperature	1	1	1	4		2	1	1	2	3	2			1	1	3		2	2		2	1	3	33	contact to high/low-temperature

engine												1													1	engine		
power transmission mechanism										1																1	power transmission mechanism	
circular sawing machine																										3	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																											chain saw	
other woodworking machines																											other woodworking machines	
leveling, transporting or loading machine																										1	leveling, transporting or loading machine	
excavating machine			1		1								1	1												2	6	excavating machine
foundation work machine																											foundation work machine	

machine																								machine
food manufacturing machine																								food manufacturing machine
printing machine																								printing machine
industrial robot																								industrial robot
other general power machines				1		1	1		1		1		2		1	1	1		1				11	other general power machines
felling machine																								felling machine
mobile logging machine																								mobile logging machine
skyline yarding machine																								skyline yarding machine
other mobile silviculture machine																								other mobile silviculture machine
crane				1																1			2	crane
mobile crane																								mobile crane
derrick crane																								derrick crane
elevator, lift																								elevator, lift
cargo lifting appliance																								cargo lifting appliance
gondola																								gondola
lumberyard equipment, logging																								lumberyard equipment, logging

gas welding equipment																							gas welding equipment		
arc welding equipment																								arc welding equipment	
other welding equipment																								other welding equipment	
kiln, caldron			1						2	1													4	kiln, caldron	
industrial dryer																								industrial dryer	
other kiln, caldron																								other kiln, caldron	
transmission			1							1													2	transmission	
electric power facilities																							1	electric power facilities	
other electrical equipment																								other electrical equipment	
human power cranes																								human power cranes	
human power hauling equipment			4		2		4					1	1	1	1	1			1		2			18	human power hauling equipment
human power machine																								human power machine	
hand tool					1				1			1												3	hand tool
ladder			4		2		2			2				2	3		2	1		3	2	2	1	26	ladder
slinging tool										1														1	slinging tool
other tools			1						1	1			1	1	1		1	1	1		1	4	2	16	other tools

harmful substances								1		1		1						1				1	5	harmful substances	
metal material			2		1			1						1						1		1	7	metal material	
lumber, bamboo								1				1		1									3	lumber, bamboo	
stone, sand, substance							1	1															2	stone, sand, substance	
other materials							1									1							2	other materials	
load			6		2		1	2	4	3	4	5	4	2		2	2	4	1	3	5	4	2	56	load
machine/equipment as load			2					1			2	1								1	1			8	machine/equipment as load
natural ground, rock								1						1	1							1	4	natural ground, rock	
standing tree																									standing tree
water												1											1	water	
abnormal environment																1							1	abnormal environment	
high/cold temperature environment								1		1	1					1		1	1		1		7	high/cold temperature environment	
other environments			4		1		9	2	2	2			1		2	1		2	3	5	1	1	3	39	other environments
other causal agent							1	1			2	1	2		1	2			2		1		1	14	other causal agent
no causal agent			5		5		4	2	2	4	2	6	3	2	1	2	2	2		2	5	2	2	53	no causal agent
unclassifiable			1																				1	unclassifiable	
total			95		83		69	46	57	58	48	41	48	37	40	38	42	37	33	45	48	50	58	973	total

Workers age of fatal and non-fatal accidents in city gas 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		1							1	1	1		1	1				1						1	8	19 years old or less
20-29	10	13	18	9	5	5	3	7	4	6	5	3	3	4	5	9	8	6	6	3	5	8	9	154	20-29	
30-39	19	17	18	20	13	9	19	8	16	7	13	9	10	11	9	6	5	5	2	6	9	4	9	244	30-39	
40-49	25	21	17	36	17	13	16	11	12	16	9	11	13	4	11	8	13	8	8	11	16	14	15	325	40-49	
50-59	27	32	39	32	41	18	27	17	20	19	13	11	13	14	9	12	10	11	12	17	11	18	14	437	50-59	
60 years old or more	3	2	3	3	7	4	4	3	4	9	7	7	8	3	6	3	6	6	5	8	7	6	10	124	60 years old or more	
total	84	86	95	100	83	49	69	46	57	58	48	41	48	37	40	38	42	37	33	45	48	50	58	1,292	total	

Workers' number of workplace of fatal and non-fatal accidents in city gas 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	12	4	11	8	4	5	7	6	8		6	5	2	5	5		3	3	5	3	7	6	6	121	9 workers or less
10-29	14	12	15	9	10	7	10	7	14	9	12	13	13	3	5	8	5	10	3	9	9	11	16	224	10-29
30-49	14	5	4	9	9	6	15	8	3	12	4	2	5	2	4	7	7	3	2	4	6	5	8	144	30-49
50-99	16	17	11	20	25	12	12	5	11	10	11	4	10	7	12	4	8	9	5	6	10	9	5	239	50-99
100-299	21	27	37	40	18	11	16	12	12	12	9	10	9	14	9	12	14	8	11	16	6	10	11	345	100-299
300 workers or more	7	21	17	14	17	8	9	8	9	15	6	7	9	6	5	7	5	4	7	7	10	9	12	219	300 workers or more

total	84	86	95	100	83	49	69	46	57	58	48	41	48	37	40	38	42	37	33	45	48	50	58	1,292	total
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Month of fatal and non-fatal accidents in city gas 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	4	6	9	7	7	2	8	5	5	6	5	3	5	5	5	2	8	3	4	3	3	3	10	118	January
February	15	7	5	5	3	5	5	5	5	6	3	1	3	6	6	4	1	3	3	12	3	6	4	116	February
March	7	6	14	7	9	3	6	5	6	2	4	3	5	6	2	7	4	4	2	3	9	3	4	121	March
April	2	10	8	9	11	4	4		6	7	6	6	6	5	1	2	2		2	3	3	2	6	105	April
May	6	4	7	9	10	2	6	8	6	8	3	3	3	1	4	3	1	4	2		2	4	5	101	May
June	8	9	10	5	9	3	5	3	2	5	4	3	4	2	4	4	2	3	4	4	3	6	3	105	June
July	5	5	10	15	5	9	8	2	5	4	6	6	4	2	1	5	6	3	1	3	8	5	7	125	July
August	10	3	9	6	3	4	5	2	5	3	3			1	2	2	9	3	3	2	5	3	1	84	August
September	13	6	7	8	8	5	4	4	2	3	4	4	7	3	3	1	2		1	5	5	8	2	105	September
October	4	10	6	13	10	2	6	1	6	6	2	4	3	3	3	2	4	7	4		2	3	4	105	October
November	2	7	6	11	4	5	2	3	5	1	5	5	4	2	3	2		3	4	6	4	2	5	91	November
December	8	13	4	5	4	5	10	8	4	7	3	3	4	1	6	4	3	4	3	4	1	5	7	116	December
total	84	86	95	100	83	49	69	46	57	58	48	41	48	37	40	38	42	37	33	45	48	50	58	1,292	total

Prefecture of fatal and non-fatal accidents in city gas 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	3	3	3		6		7	2	2	1		1				1		2	1	1	3	3	1	40	Hokkaido

Aomori	2	1			1		1					1		2			1		1		1		11	Aomori	
Iwate					1			1		1			1						1	1			6	Iwate	
Miyagi	1	1	1		2		5	1	3	5	1		4			3	1	1	2	5	5	4	4	49	Miyagi
Akita											1		1											2	Akita
Yamagata	5									1	1		1	1										9	Yamagata
Fukushima			1		2			1		2		1	2	4				2					1	16	Fukushima
Ibaraki	1		1		1			1	2	2			3		2	1		1			1	1		17	Ibaraki
Tochigi			2										1	1	2	1			2			1	4	14	Tochigi
Gunma	1		2		1			2	1		1	1		3		1	1	1	1			1	1	18	Gunma
Saitama	2	4	5		1		4	3	4	2	2	8	3	2	2	1	2	2	2	2	1	4	3	59	Saitama
Chiba	7	12	5		7		8	2	9	1	6	2	3	3	1	7	8	4	4	3	4	6	5	107	Chiba
Tokyo	13	21	23		14		10	1	3	3	3	11	7	6	6	7	4	1	1		3	5	1	143	Tokyo
Kanagawa	7	8	12		2		1	1	1	3	1		2		5	1	1	1	5	7	2	1	1	62	Kanagawa
Niigata	1														2	1								12	Niigata
Toyama			1		1			1				1											2	6	Toyama
Ishikawa	1											1								1	2		3	8	Ishikawa
Fukui	2							1				1												4	Fukui
Yamanashi			1																	1	1			3	Yamanashi
Nagano	1		2				1	2	1	1					1				1		1	1	1	13	Nagano
Gifu	2	5	2		2					2	2							1		1	2	1	2	22	Gifu
Shizuoka	4	1	7		3		4	1	5	4	3		2	1		1	4	3		4	1	1		49	Shizuoka
Aichi	5	3	3		7		7	5	3	6	1	5	1	1	4	2	3	1	3	4	1	2	1	68	Aichi
Mie	1	2	1					2			1	3			1		1			2	1		2	17	Mie

unclassifiable																												unclassifiable
total	1	1	1					1				1	1	1			1										8	total

Causal agents (large) of fatal accidents in city gas 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	total	Causal (L) agents	
machine																										machine
crane, conveying machine														1											1	crane, conveying machine
other equipment																										other equipment
temporary buildings, establishments												1													1	temporary buildings, establishments
substance, material	1	1	1					1																	4	substance, material
load																										load
environment													1				1								2	environment
others																										others
total	1	1	1					1				1	1	1			1								8	total

Causal agents (middle) of fatal accidents in city gas service in 1999-2021

																									agent
no causal agent																									no causal agent
unclassifiable																									unclassifiable
total	1	1	1					1				1	1	1			1								8 total

Causal agents (small) of fatal accidents in city gas 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 mechanism																											power transmission mechanism
circular sawing machine																											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																											chamfering machine, router, woodworking

shearing machine																							shearing machine	
other metal manufacturing machines																								other metal manufacturing 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 machine
skyline yarding machine																								skyline yarding machine
other mobile silviculture machine																								other mobile silviculture machine

buildings, establishments																							buildings, establishments	
explosive substance																							explosive substance	
inflammable substance																							inflammable substance	
inflammable gas			1																			1	inflammable gas	
harmful substance	1	1					1															3	harmful substance	
radiation																							radiation	
other hazards, harmful substances																							other hazards, harmful substances	
metal material																							metal material	
lumber, bamboo																							lumber, bamboo	
stone, sand, substance																							stone, sand, substance	
other materials																							other materials	
load																							load	
machine/equipment as load																							machine/equipment as load	
natural ground, rock																							natural ground, rock	
standing tree																							standing tree	
water													1										1	water
abnormal environment																							1	abnormal environment

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											6	9 workers or less
10-29																										10-29
30-49																										30-49
50-99		1																							1	50-99
100-299																										100-299
300 workers or more																	1								1	300 workers or more
total	1	1	1					1				1	1	1			1								8	total

Month of fatal accidents in city gas 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	January
February																										February
March	1												1	1											3	March
April																										April
May																										May
June			1																						1	June
July												1													1	July
August																1									1	August
September								1																	1	September
October																										October

Fukuoka											1												1	Fukuoka
Saga																								Saga
Nagasaki																								Nagasaki
Kumamoto																								Kumamoto
Oita																								Oita
Miyazaki																								Miyazaki
Kagoshima			1																				1	Kagoshima
Okinawa																								Okinawa
total	1	1	1					1				1	1	1			1						8	total

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