

Table 8 Water quality items and limits of discharge from the industries other than the wafer and semiconductor manufacturing industry, optoelectronic materials and components manufacturing industry, petrochemical industry, chemical engineering industry, primary metal industry, metal finishing industry, electroplating industry, PCB manufacturing industry, power plant and seawater desalination plants

Scope	Item		Limit	Remarks
All	Water temperature	Discharge into non-marine surface water bodies	Lower than 38°C (for May to September)	
			Lower than 35°C (for October to next April)	
		Direct discharge to the ocean	Water temperature at discharge point $\leq 42^{\circ}\text{C}$ ; temperature difference of surface water 500m from discharge point $\leq 4^{\circ}\text{C}$	
	Hydrogen ion concentration index		6.0—9.0	
	Villiaumite		15	
	Nitrite nitrogen		50	This is not applicable to total nitrogen control.
	Ammonia nitrogen	Discharged into tap water quality and volume protection area	10	1. For ammonia nitrogen and orthophosphate control in the livestock industry, the competent authority will announce the control date and effluent standard in consultation with the authority in charge of the industry. 2. Orthophosphate is not applicable to total phosphorus control.
	Orthophosphate (calculated based on trivalent phosphate ion)	Discharged into tap water quality and volume protection area	4.0	
	Phenols		1.0	
	Anion surfactant		10	
	Cyanide		1.0	
	Grease (Hexane extracts)		10	
	Dissolved iron		10	
	Dissolved manganese		10	
	Cadmium		0.03	
	Lead		1.0	
	Total chromium		2.0	
	Hexavalent chromium		0.5	
	Methyl mercury		0.0000002	
	Total mercury		0.005	
	Copper		3.0	
	Zinc		5.0	
	Silver		0.5	
	Nickel		1.0	
	Selenium		0.5	
	Arsenic		0.5	
	Boron	Discharged into tap water quality and volume protection area	1.0	

		Discharged into places outside tap water quality and volume protection area	5.0	
	Sulfide		1.0	
	Formaldehyde		3.0	
	Polychlorinated biphenyl		0.00005	
	Total organic phosphate agent		0.5	
	Total carbamate		0.5	
	Herbicide		1.0	
	Endosulfan		0.03	
	Endrin		0.0002	
	Lindane		0.004	
	Heptachlor and derivatives		0.001	
	DDT and derivatives		0.001	
	Aldrin and Dieldrin		0.003	
	Pentachlorophenol and its salts		0.005	
	Toxaphene		0.005	
	Pentachloronitrobenzene		0.00005	
	Folpet		0.00025	
	Captafol		0.00025	
	Captan		0.00025	
	Dioxin	Paper pulp industry or other industries that are equipped with waste incinerators, have air pollution control equipment with wet or semi-dry scrubbers, that are constructed, under construction or finish tendering procedures before Oct. 12, 2012	10	
		Paper pulp industry or other industries that are equipped with waste incinerators, have air pollution control equipment with wet or semi-dry scrubbers, that are not constructed, under construction or do not finish tendering procedures before Oct. 12, 2012	5	
		Steam supply industry constructed, under construction or tendering procedures completed before Apr. 29, 2019	10	In effect from Jul. 1, 2020

		Steam supply industry with tendering procedures not completed before Apr. 29, 2019	5	In effect from Jul. 1, 2020
Pharmaceutical manufacturing industry	Biochemical oxygen demand		30	
	Chemical oxygen demand		100	
	Suspended solids		30	
	True color	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	550	
			400	In effect from Jan. 1, 2021.
		Tendering procedures not completed before Dec. 25, 2017	300	
	Free available residual chlorine	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	2.0	In effect from Jan. 1, 2021.
		Tendering procedures not completed before Dec. 25, 2017	2.0	
Pesticide and environmental and sanitation agent manufacturing industry	Biochemical oxygen demand		30	
	Chemical oxygen demand		100	
	Suspended solids		30	
	True color	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	550	
			400	In effect from Jan. 1, 2021.
		Tendering procedures not completed before Dec. 25, 2017	300	
	Free available residual chlorine	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	2.0	In effect from Jan. 1, 2021.
		Tendering procedures not completed before Dec. 25, 2017	2.0	
	Molybdenum	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	0.6	In effect from Jan. 1, 2021.
		Tendering procedures not completed before Dec. 25, 2017	0.6	
Rubber manufacturing industry	Biochemical oxygen demand		30	
	Chemical oxygen demand		100	
	Suspended solids		30	
Wool washing industry	Biochemical oxygen demand		30	
	Chemical oxygen demand		100	
	Suspended solids		30	
	True color	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	550	
			400	In effect from Jan. 1, 2021.
		Tendering procedures not completed before Dec. 25, 2017	300	
	Free available residual chlorine	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	2.0	In effect from Jan. 1, 2021.

		Tendering procedures not completed before Dec. 25, 2017	2.0	
Textile industry		Biochemical oxygen demand	30	
		Chemical oxygen demand	100	
		Suspended solids	30	
		True color	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	In effect from Jan. 1, 2021.
			550	
			400	
			300	
		Tendering procedures not completed before Dec. 25, 2017	300	
		Free available residual chlorine	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	In effect from Jan. 1, 2021.
			2.0	
			2.0	
		Tendering procedures not completed before Dec. 25, 2017	2.0	
Printing, dyeing and finishing industry	Printing and woven fabric dyeing	Biochemical oxygen demand	30	
		Chemical oxygen demand	160	
		Suspended solids	30	
		True color	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	In effect from Jan. 1, 2021.
			550	
			400	
			300	
		Tendering procedures not completed before Dec. 25, 2017	300	
		Free available residual chlorine	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	In effect from Jan. 1, 2021.
			2.0	
			2.0	
		Tendering procedures not completed before Dec. 25, 2017	2.0	
	Cheese and hank dyeing, knitted and non-woven fabric dying	Biochemical oxygen demand	30	
		Chemical oxygen demand	140	
		Suspended solids	30	
		True color	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	In effect from Jan. 1, 2021.
			550	
			400	
			300	
		Tendering procedures not completed before Dec. 25, 2017	300	
		Free available residual chlorine	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	In effect from Jan. 1, 2021.
			2.0	
			2.0	
		Tendering procedures not completed before Dec. 25, 2017	2.0	
	Finishing, paper printing, brushing, chipping, sanding and those not	Biochemical oxygen demand	30	
		Chemical oxygen demand	100	
		Suspended solids	30	
		True color	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	In effect from Jan. 1, 2021.
			550	
			400	

	belonging to the prior two categories		Tendering procedure not completed before Dec. 25, 2017		300	
		Free available residual chlorine	Constructed, under construction or tendering procedures completed before Dec. 25, 2017		2.0	In effect from Jan. 1, 2021.
			Tendering procedure not completed before Dec. 25, 2017		2.0	
Leather making industry	Manufacturers making finished leather from rawhide	Biochemical oxygen demand			30	
		Chemical oxygen demand			160	
		Suspended solids			30	
		True color	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	550		
				400		In effect from Jan. 1, 2021.
			Tendering procedure not completed before Dec. 25, 2017	300		
		Free available residual chlorine	Constructed, under construction or tendering procedures completed before Dec. 25, 2017		2.0	In effect from Jan. 1, 2021.
			Tendering procedure not completed before Dec. 25, 2017		2.0	
		Ammonia nitrogen	Discharged into places outside tap water quality and volume protection area	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	150	In effect from Jan. 1, 2021.
					60	In effect from Jan. 1, 2024.
		Tendering procedure not completed before Dec. 25, 2017	20			
	Manufacturers making finished leather from wet blue	Biochemical oxygen demand			30	
		Chemical oxygen demand			200	
		Suspended solids			30	
		True color	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	550		
				400		In effect from Jan. 1, 2021.
		Tendering procedure not completed before Dec. 25, 2017	300			
		Free available residual chlorine	Constructed, under construction or tendering procedures completed before Dec. 25, 2017		2.0	In effect from Jan. 1, 2021.
Tendering procedure not completed before Dec. 25, 2017			2.0			

	Manufacturers other than those “making finished leather from rawhide”, “and making finished leather from wet blue”	Biochemical oxygen demand		30	
		Chemical oxygen demand		100	
		Suspended solids		30	
		True color	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	550	
				400	In effect from Jan. 1, 2021.
		Tendering procedure not completed before Dec. 25, 2017	300		
			Free available residual chlorine		Constructed, under construction or tendering procedures completed before Dec. 25, 2017
Tendering procedure not completed before Dec. 25, 2017		2.0			
Paper pulp industry	Chemical oxygen demand		150		
	Suspended solids		50		
	True color	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	550		
			400	In effect from Jan. 1, 2021.	
	Tendering procedure not completed before Dec. 25, 2017	300			
		Free available residual chlorine		Constructed, under construction or tendering procedures completed before Dec. 25, 2017	2.0
	Tendering procedure not completed before Dec. 25, 2017		2.0		
Paper making industry	Waste paper not used as raw material	Biochemical oxygen demand		30	
		Chemical oxygen demand		100	
		Suspended solids		30	
		True color	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	550	
				400	In effect from Jan. 1, 2021.
		Tendering procedure not completed before Dec. 25, 2017	300		
			Free available residual chlorine		Constructed, under construction or tendering procedures completed before Dec. 25, 2017
	Tendering procedure not completed before Dec. 25, 2017		2.0		
	Waste paper used as raw material to more than 60%	Biochemical oxygen demand		30	
		Chemical oxygen demand		180	
		Suspended solids		30	
		True color	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	550	
				400	In effect from Jan. 1, 2021.

			Tendering procedure not completed before Dec. 25, 2017	300	
		Free available residual chlorine	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	2.0	In effect from Jan. 1, 2021.
			Tendering procedure not completed before Dec. 25, 2017	2.0	
	Waste paper used as raw material to less than 60%	Biochemical oxygen demand		30	
		Chemical oxygen demand		160	
		Suspended solids		30	
		True color	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	550	
				400	In effect from Jan. 1, 2021.
			Tendering procedure not completed before Dec. 25, 2017	300	
		Free available residual chlorine	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	2.0	In effect from Jan. 1, 2021.
	Tendering procedure not completed before Dec. 25, 2017		2.0		
Mining industry, ceramic industry, earth and stone extracting industry		Chemical oxygen demand	100		
		Suspended solids	50		
Earth and gravel processing industry		Chemical oxygen demand	100		
		Suspended solids	50		
			150	Applicable to sand and stone produced during dredging and used as raw material without involving extraction of earth and stone, but not including application in violation of Article 18-1 of the Act.	
Glass manufacturing industry		Chemical oxygen demand	100		
		Suspended solids	50		
Cement industry		Chemical oxygen demand	100		
		Suspended solids	50		
Other industries		Biochemical oxygen demand	30		
		Chemical oxygen demand	100		
		Suspended solids	30		
		True color	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	550	
				400	In effect from Jan. 1, 2021.
		Tendering procedure not completed before Dec. 25, 2017	300		
Free available residual chlorine	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	2.0	In effect from Jan. 1, 2021.		

		Tendering procedure not completed before Dec. 25, 2017		2.0	
	Molybdenum	Constructed, under construction or tendering procedures completed before Dec. 25, 2017		0.6	In effect from Jan. 1, 2021.
		Tendering procedure not completed before Dec. 25, 2017		0.6	
Due recycled waste recycling and processing industry	Chemical oxygen demand			200	
	Suspended solids			50	
Waste landfills	Chemical oxygen demand			200	
	Suspended solids			50	
	Ammonia nitrogen	Discharge d into places outside tap water quality and volume protection area	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	150	In effect from Jan. 1, 2021.
				60	In effect from Jan. 1, 2024.
			Tendering procedure not completed before Dec. 25, 2017	20	
Waste incinerators and other waste treatment plants (facilities)	Chemical oxygen demand			100	
	Suspended solids			30	
	Coliform group			200,000	Applicable to carcass rendering process industry
Wastewater treatment service industry	Biochemical oxygen demand			30	
	Chemical oxygen demand			100	
	Suspended solids			30	
	True color	Constructed, under construction or tendering procedures completed before Dec. 25, 2017		550	
				400	In effect from Jan. 1, 2021.
		Tendering procedure not completed before Dec. 25, 2017		300	
	Free available residual chlorine	Constructed, under construction or tendering procedures completed before Dec. 25, 2017		2.0	In effect from Jan. 1, 2021.
		Tendering procedure not completed before Dec. 25, 2017		2.0	
Coliform group			200,000		
Nightsoil treatment plants (facilities)	Biochemical oxygen demand			50	
	Chemical oxygen demand			100	
	Suspended solids			50	
	Coliform group			300,000	
Environmental analysis and testing organizations	Biochemical oxygen demand			30	
	Chemical oxygen demand			100	
	Suspended solids			30	
Experimental, testing	Biochemical oxygen demand			30	



(chemical) and research laboratories		Chemical oxygen demand		200	
		Suspended solids		50	
Laundry industry		Chemical oxygen demand		100	
		Suspended solids		50	
Shipbreaking and ship cleaning industries		Chemical oxygen demand		100	
		Suspended solids		50	
Shipbuilding and repairing industry		Chemical oxygen demand		100	
		Suspended solids		30	
Car washes		Chemical oxygen demand		100	
		Suspended solids		50	
Vehicle repair plants		Chemical oxygen demand		100	
		Suspended solids		30	
Photograph developing and plate-making industries		Chemical oxygen demand		100	
		Suspended solids		30	
Food manufacturing industry	Without carcass rendering process	Biochemical oxygen demand		30	
		Chemical oxygen demand		100	
		Suspended solids		30	
	With carcass rendering process	Biochemical oxygen demand		30	
		Chemical oxygen demand		100	
		Suspended solids		30	
		Coliform group		200,000	
Milling industry		Biochemical oxygen demand		50	
		Chemical oxygen demand		100	
		Suspended solids		80	
Fermentation industry (ferment manufacturing industry; MSG manufacturing industry; liquor, alcohol and vinegar manufacturing industry; Soybean sauce manufacturing industry; antibiotics and solvent manufacturing industry)		Biochemical oxygen demand		50	
		Chemical oxygen demand		150	
		Suspended solids		50	
		True color	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	550	In effect from Jan. 1, 2021.
				400	
			Tendering procedure not completed before Dec. 25, 2017	300	
		Free available residual chlorine	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	2.0	In effect from Jan. 1, 2021.
				2.0	
Sugar refining industry		Biochemical oxygen demand		30	
		Chemical oxygen demand		100	
		Suspended solids		30	
Meat markets		Biochemical oxygen demand		80	
		Chemical oxygen demand		150	
		Suspended solids		80	
		True color	Constructed, under construction or tendering	550	In effect from Jan. 1, 2021.
				400	
			Tendering procedure not completed before Dec. 25, 2017	300	

		Free available residual chlorine	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	2.0	In effect from Jan. 1, 2021.
			Tendering procedure not completed before Dec. 25, 2017	2.0	
Fish markets		Biochemical oxygen demand		30	
		Chemical oxygen demand		100	
		Suspended solids		30	
Slaughtering industry		Biochemical oxygen demand		80	
		Chemical oxygen demand		150	
		Suspended solids		80	
		True color	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	550	
				400	In effect from Jan. 1, 2021.
				300	
		Free available residual chlorine	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	2.0	In effect from Jan. 1, 2021.
				Tendering procedure not completed before Dec. 25, 2017	2.0
Coliform group		200,000			
Aquaculture		Biochemical oxygen demand		30	
		Chemical oxygen demand		100	
		Suspended solids		30	
Stock farming	Non-herbivorous animals such as pig, chicken, duck and goose	Biochemical oxygen demand		80	
		Chemical oxygen demand		600	
		Suspended solids		150	
	Herbivorous animals such as cattle, horse, sheep, deer and rabbit	Biochemical oxygen demand		80	
		Chemical oxygen demand		450	
		Suspended solids		150	
Hospitals and medical institutions		Biochemical oxygen demand		30	
		Chemical oxygen demand		100	
		Suspended solids		30	
		Coliform group		200,000	
Zoos		Biochemical oxygen demand		50	
		Chemical oxygen demand		150	
		Suspended solids		50	
		Coliform group		300,000	
Amusement parks		Biochemical oxygen demand		50	
		Chemical oxygen demand		150	
		Suspended solids		50	
		Coliform group		300,000	
Catering industry		Biochemical oxygen demand		50	Pure hot spring wastewater that meetss the requirements of the Water Pollution
		Chemical oxygen demand		150	
		Suspended solids		50	

		Coliform group		300,000	Control Measures and Test Reporting Management Regulations may be discharged into the surface water body to which the source of the hot spring concerned belongs if the water temperature meets the control limits of the Standards.	
Tourist hotels	Tourist hotels	Biochemical oxygen demand	Constructed, under construction or tendering procedures completed before Dec. 25, 2017		50	Pure hot spring wastewater that meets the requirements of the Water Pollution Control Measures and Test Reporting Management Regulations may be discharged into the surface water body to which the source of the hot spring concerned belongs if the water temperature meets the control limits of the Standards.
		Chemical oxygen demand			150	
		Suspended solids			50	
		Coliform group			300,000	
		Biochemical oxygen demand	Constructed, under construction or tendering procedures completed before Dec. 25, 2017		30	1. In effect from Jan. 1, 2021. 2. Pure hot spring wastewater that meets the requirements of the Water Pollution Control Measures and Test Reporting Management Regulations
		Chemical oxygen demand			100	
		Suspended solids			30	
		Coliform group			200,000	may be discharged into the surface water body to which the source of the hot spring concerned belongs if the water temperature meets the control limits of the Standards.
		Total nitrogen	Discharged into tap water quality and volume protection area	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	15	In effect from Jan. 1, 2021.
		Total phosphorus			2.0	
		Biochemical oxygen demand	Tendering procedures not completed before Dec. 25, 2017		30	Pure hot spring wastewater that meets the requirements of the Water Pollution Control Measures and Test Reporting Management Regulations may be discharged into the surface water body to which the source of the hot spring concerned belongs if the water temperature meets the control limits of the Standards.
		Chemical oxygen demand			100	
		Suspended solids			30	
		Coliform group			200,000	
		Total nitrogen	Discharged into tap water quality and volume protection area	Tendering procedures not completed before Dec. 25, 2017	15	
		Total phosphorus			2.0	
	Hotels, B&B	Biochemical oxygen demand			50	Pure hot spring wastewater that meets the requirements
		Chemical oxygen demand			150	

		Suspended solids		50		of the Water Pollution Control Measures and Test Reporting Management Regulations may be discharged into the surface water body to which the source of the hot spring concerned belongs if the water temperature meets the control limits of the Standards.
		Coliform group		300,000		
Coal storage sites, construction sites, earth and gravel storage (disposal) sites		Biochemical oxygen demand		30		Control of construction and earth and gravel storage (disposal) sites is only applicable if required measures are not taken pursuant to regulations.
		Chemical oxygen demand		100		
		Suspended solids		30		
		True color	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	550		
			Tendering procedures not completed before Dec. 25, 2017	400		In effect from Jan. 1, 2021.
		Free available residual chlorine	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	2.0		In effect from Jan. 1, 2021.
			Tendering procedures not completed before Dec. 25, 2017	2.0		
Cargo container distributors		Chemical oxygen demand		100		
		Suspended solids		30		
Tap water treatment facilities		Chemical oxygen demand		100		As a response to the warning of torrential rain or natural disaster, water supply plants may directly discharge and are not subject to the Standards if they have taken emergency response measures pursuant to the Water Pollution Control Measures and Test Reporting Management Regulations.
		Suspended solids		50		
		Total residual chlorine		0.5		
Reclaimed water industry	Discharge volume > 250 m³/day	Biochemical oxygen demand		30		In effect from Jan. 1, 2019.
		Chemical oxygen demand		100		
		Suspended solids		30		
		Coliform group		200,000		
		Total nitrogen	Discharged into tap water quality and volume protection area	15		
		Total phosphorus		2.0		
	Discharge volume ≤ 250 m³/day	Biochemical oxygen demand		50		
		Chemical oxygen demand		150		
		Suspended solids		50		
		Coliform group		300,000		
		Total nitrogen	Discharged into tap water quality and volume protection area	15		
		Total phosphorus		2.0		
Livestock excrement and biomass energy recycling treatment center		Biochemical oxygen demand		80		In effect from Jan. 1, 2019. For the industries engaged in collecting livestock manure or digestate liquid and fiber that are anaerobically fermented as the bait for algae, rotifers, water fleas
		Chemical oxygen demand		600		
		Suspended solids		150		

			and other aquatic seedlings or for aquaculture, the standard would be in effect from Jul. 1, 2019.
Steam supply industry	Chemical oxygen demand		100
	uspended solids		30
Other industries designated by the central competent authority	Biochemical oxygen demand		30
	Chemical oxygen demand		100
	Suspended solids		30
	True color	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	550
			400
		Tendering procedures not completed before Dec. 25, 2017	300
	Free available residual chlorine	Constructed, under construction or tendering procedures completed before Dec. 25, 2017	2.0
		Tendering procedures not completed before Dec. 25, 2017	2.0

and other aquatic seedlings or for aquaculture, the standard would be in effect from Jul. 1, 2019.

In effect from Jul. 1, 2020.

In effect from Jan. 1, 2021.

In effect from Jan. 1, 2021.