Site Data

2018 data on the acquisition status of ISO 14001 certification for the SUMCO Group's business sites/plants and regulated substances discharged from each site/plant to the surrounding air and water

Name of business site/plant				
Scope of business		Design, development and manufacture of silicon wafers	Design, development and manufacture of monocrystalline silicon ingots and silicon wafers	Design, development and manufacture of monocrystalline silicon ingots and silicon wafers
Status of acquisition of ISO 14001:2015 certification	Examining organization	Japan Quality Assurance Organization	Japan Quality Assurance Organization	Japan Quality Assurance Organization
	Date of acquisition	January 11, 1999	January 11, 1999	January 11, 1999
	Date of renewal	January 11, 2020	January 11, 2020	January 11, 2020

Air					
Nitrogen oxides (NOx)	ppm	Boiler 89 (150)	Boiler 51(150)	Boiler 67 (110)	
Sulfur oxides (SOx)	m³N/h	ND (K-value regulation 17.5)	ND (K-value regulation17.5)	/	
Soot and dust	g/m³N	Boiler∕(∕)	Boiler∕(∕)	Boiler ND (0.001)	

Water		Regulation value	Measurement result	Regulation value	Measurement result	Regulation value	Measurement result
Biological oxygen demand (BOD **1)	mg∕ℓ	/	/	/	/	10	7.6
Chemical oxygen demand (COD ^{#2})	mg∕ℓ	30	9.7	30	7.1	/	/
Suspended solids (SS)	mg∕ℓ	30	12	30	4	25	5
N-hexane extract	mg∕ℓ	5	ND	5	ND	3	ND
lodine consumption	mg∕ℓ	/	/	/	/	/	/
Fluorine and its compounds	mg∕ℓ	8	5.4	8	3.38	3	0.99
Ammoniac nitrogen	mg∕ℓ						
Nitrate nitrogen	mg∕ℓ	80	15	80	24	100	14.1
Nitrite-nitrogen	mg∕ℓ						
Nitrogen content (T-N)	mg∕ℓ	120	36	120	28	60	18.2
Chromium content (T-Cr)	mg∕ℓ	0.2	ND	0.2	ND	0.2	ND
Phosphorus content (T-P)	mg∕ℓ	12	0.41	12	0.36	8	1.52
Arsenic	mg/ l	0.05	ND	0.05	ND	0.1	ND
Trichloroethylene	mg/ l	0.1	ND	0.1	ND	0.1	ND

* 1. In case of discharging treated wastewater into the river, the drainage restriction of biological oxygen demand (BOD) applies.

* 2. In case of discharging treated wastewater into the sea, the drainage restriction of chemical oxygen demand (COD) applies.

* Numbers list the maximum annual figures. 7" denotes non-applicability "-" denotes an unmeasured item as the regulated substance is not used. "ND" denotes non-detection

Site Data

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		Noda Office		
Scope of business		Manufacture of silicon wafers	Design, development and manufacture of monocrystalline silicon ingots	
Status of acquisition of ISO 14001:2015 certification	Examining organization	Japan Quality Assurance Organization	Japan Quality Assurance Organization	
	Date of acquisition	January 11, 1999	January 11, 1999	
	Date of renewal	January 11, 2020	January 11, 2020	

Air		Measurement results (regulation value)			
Nitrogen oxides (NOx)	ppm	Boiler 77 (260)	Boiler ∕(∕)		
Sulfur oxides (SOx)	m³N/h	0.025 (K-value regulation 9.0)	/		
Soot and dust	g/m³N	Boiler 0.015 (0.3)	Boiler∕(∕)		

Water		Regulation value	Measurement result	Regulation value	Measurement result
Biological oxygen demand (BOD)	mg/l	25	22.1	600	13
Chemical oxygen demand (COD)	mg∕ℓ	20 *1	19	/	/
Suspended solids (SS)	mg/ l	50	13	600	46
N-hexane extract	mg/l	3	ND	5	0.6
lodine consumption	mg/ l	/	/	220	2.1
Fluorine and its compounds	mg/ l	8	7.3	8*2	1.5
Ammoniac nitrogen	mg∕ℓ				
Nitrate nitrogen	mg/ l	100	10.3	380	170
Nitrite-nitrogen	mg/l				
Nitrogen content (T-N)	mg/ l	30	24	/	/
Chromium content (T-Cr)	mg/l	1	ND	0.5	ND
Phosphorus content (T-P)	mg/l	2	0.2	/	/
Arsenic	mg/l	0.05	ND	0.1	ND
Trichloroethylene	mg/l	0.1	ND	0.1	/

* 1. At the Noda office, since Tokyo Bay pollutant load restrictions apply, it is also subject to chemical oxygen demand (COD) restrictions.

* 2. At the Yonezawa Plant, treated wastewater is discharged into public sewerage systems and is thus subject to the Sewerage Act. (Destination of treated waste water outflowing from sewerage treatment site: river) Accordingly, the regulation value for fluoridation compound is 8 mg/l.

		Chitose Plant	JSQ Division	
Scope of business		Design, development and manufacture of silicon wafers	Design, development and manufacture of quartz crucibles	
Status of acquisition of ISO 14001:2015 certification Date of renew	Examining organization	Japan Quality Assurance Organization	Japan Quality Assurance Organization	
	Date of acquisition	January 11, 1999	January 11, 1999	
	Date of renewal	January 11, 2020	January 11, 2020	

Air				
Nitrogen oxides (NOx)	ppm	Boiler ∕(∕)	Firing furnace \checkmark (\checkmark)	
Sulfur oxides (SOx)	m³N/h	/	/	
Soot and dust	g/m³N	Boiler ∕(∕)	Firing furnace 0.09(0.2)	

Water		Regulation value	Measurement result	Regulation value	Measurement result
Biological oxygen demand (BOD)	mg∕ℓ	600	1.4	160	24
Chemical oxygen demand (COD)	mg∕ℓ	/	/	/	/
Suspended solids (SS)	mg/ l	600	8	200	24
N-hexane extract	mg/l	5	ND	5	ND
lodine consumption	mg∕ℓ	/	/	/	/
Fluorine and its compounds	mg∕ℓ	8	4.3	8*	2.9
Ammoniac nitrogen	mg∕ℓ				
Nitrate nitrogen	mg/ l	/	/	100	3.3
Nitrite-nitrogen	mg∕ℓ				
Nitrogen content (T-N)	mg∕ℓ	/	/	120	4.9
Chromium content (T-Cr)	mg∕ℓ	2	ND	2	ND
Phosphorus content (T-P)	mg∕ℓ	/	/	16	0.29
Arsenic	mg/l	/	/	0.1	ND
Trichloroethylene	mg∕ℓ	0.1	/	0.1	ND

* At the Chitose Plant, treated wastewater is discharged into public sewerage systems and is thus subject to the Sewerage Act. (Destination of treated wastewater out flowing from sewerage treatment site: river) Accordingly, the regulation value for fluoridation compound is 8 mg/l.

Site Data

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Name of business site/plant				
Scope of business		Design, development and manufacture of monocrystalline silicon ingots and silicon wafers	Design, development and manufacture of monocrystalline silicon ingots and silicon wafers	
Status of acquisition of ISO 14001:2015 certification Date rene	Examining organization	Japan Quality Assurance Organization	Japan Quality Assurance Organization	
	Date of acquisition	January 11, 1999	January 11, 1999	
	Date of renewal	January 11, 2020	January 11, 2020	

		Measurement results (regulation value)		
Nitrogen oxides (NOx)	ppm	Boiler 71 (260)	Boiler 65(150)	
Sulfur oxides (SOx)	m³N/h	0.004 (K-value regulation 17.5)	/	
Soot and dust	g/m³N	Boiler 0.01(0.3)	Boiler ND (0.1)*2	

Water		Regulation value	Measurement result	Regulation value	Measurement result
Biological oxygen demand (BOD)	mg/ l	600	86.8	25	4.3
Chemical oxygen demand (COD)	mg/ l	/	/	/	/
Suspended solids (SS)	mg/l	600	21	30	3
N-hexane extract	mg/l	5	ND	5	ND
lodine consumption	mg/l	/	/	/	/
Fluorine and its compounds	mg/l	15*1	10.3	8	1.7
Ammoniac nitrogen	mg/ l				
Nitrate nitrogen	mg/l	380	64.7	100	11.0
Nitrite-nitrogen	mg/ l				
Nitrogen content (T-N)	mg/l	240	89.4	120	5.4
Chromium content (T-Cr)	mg/ l	2	ND	0.2	ND
Phosphorus content (T-P)	mg/ l	32	0.18	16	0.03
Arsenic	mg/ l	0.1	0.004	0.1	/
Trichloroethylene	mg/l	0.1	ND	0.1	/

* 1. At STC Nagasaki plant, treated wastewater is discharged into public sewerage systems and is thus subject to the Sewerage Act. (Destination of treated wastewater outflowing from sewerage treatment site: the sea) Accordingly, the regulation value for fluoridation compound is 15 mg/l.

* 2. The frequency of atmospheric soot and dust measurements at STC Miyazaki was revised to once every five years (the next measurement will be taken in 2023).

Name of business site/plant		SUMCO Phoenix Corporation Albuquerque Plant	SUMCO Phoenix Corporation Phoenix Plant	
Scope of business		Design, development and manufacture of silicon wafers	Design, development and manufacture of monocrystalline silicon ingots and silicon wafers	
Status of acquisition of ISO 14001:2015 certification	Examining organization	DNV	DNV	
	Date of acquisition	June 19, 2000	June 19, 2000	
	Date of renewal	June 30, 2021	June 30, 2021	

Air		Measurement results (regulation value)			
Nitrogen oxides (NOx)	ton/y	1.26 (10.2)	13.11 (24.6)		
Sulfur oxides (SOx)	ton/y	0.01 (0.34)	0.41 (1.25)		
PM10 (Particulate Matter)	ton/y	0.09 (0.84)	0.71 (2.5)		

Water		Regulation value	Measurement result *	Regulation value	Measurement result
Biological oxygen demand (BOD)	mg/l	/	/	/	/
Chemical oxygen demand (COD)	mg/l	/	/	/	/
Arsenic	mg/ l	2.09	/	0.13	0.013
Cadmium	mg/l	/	/	0.047	ND
Copper	mg/ l	/	/	1.5	0.067
Cyanide	mg/ l	0.5	/	2	ND
Fluorine and its compounds	mg/ l	36	/	/	/
Lead	mg/ l	1.0	/	0.41	ND
Mercury	mg/ l	0.004	/	0.0023	ND
Molybdenum	mg/ l	2.0	/	/	/
Selenium	mg/l	0.46	/	0.1	ND
Silver	mg/l	5.0	/	1.2	ND
Zinc	mg/l	2.2	/	3.5	ND
Suspended solids (SS)	mg/l	/	/	/	/

* At the Albuquerque Plant, only ph and water flow rate measurements are required, and the City of Albuquerque periodically takes wastewater measurements.