

Emissions Data for the KOBELCO Group's Business Locations in fiscal 2020

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Air and water quality data from all of Kobe Steel's business locations as well as its major group companies are reported below. For exhaust gases, NOx, dust and dioxins from representative facilities are included, along with regulation values. For wastewater, COD (or BOD in some cases), SS, oil and dioxins are included, along with regulation values.

Air Quality Data:

Regulation values are based on the Air Pollution Control Act, prefectural ordinances, conventions, and the Act on Special Measures against Dioxins.

Water Quality Data:

Regulation values are based on the Water Pollution Prevention Act, the Sewerage Act, prefectural ordinances, conventions, and the Act on Special Measures against Dioxins.

■ Iron & Aluminum

Kakogawa Works

Air

Substance	Facility	Regulation Value	Actual Measurement (Max.)
NOx(ppm)	Boiler	250	31.1
	Boiler	60	10.8
	Heating furnace	100	36.4
Dust(mg/Nm3)	Boiler	100	8
	Boiler	50	3
	Heating furnace	100	1
Dioxins(ng-TEQ/Nm3)	Industrial waste incinerator	5	0.011
	Sintering plant	1	0.0016

Water

Substance	Regulation Value	Actual Measurement (Max.)
COD(mg/L)	5	3.4
SS(mg/L)	20	7
oil(Mineral oil)(mg/L)	1	<1
Dioxins(pg-TEQ/L)	10	0.035

*The latest environmental data from Kakogawa Works can be viewed from our website (updated monthly).(https://www.kobelco.co.jp/about_kobelco/csr/information)

Kobe Wire Rod & BarPlant

Air

Substance	Facility	Regulation Value	Actual Measurement (Max.)
NOx(ppm)	Boiler	250	121
	Heating furnace	130	98
	Heating furnace	100	52
Dust(mg/Nm3)	Boiler	200	8
	Heating furnace	100	17
	Heating furnace	100	<1
Dioxins(ng-TEQ/Nm3)	N/A	-	-

Water

Substance	Regulation Value	Actual Measurement (Max.)
COD(mg/L)	15	3.9
SS(mg/L)	30	2
oil(Mineral oil)(mg/L)	1	<1
Dioxins(pg-TEQ/L)	-	-

*The latest environmental data from Kobe Wire Rod & Bar Plant can be viewed from our website (updated monthly).(https://www.kobelco.co.jp/about_kobelco/csr/information)

Moka Works

Air

Substance	Facility	Regulation Value	Actual Measurement (Max.)
NOx(ppm)	Melting furnace	180	67
	Boiler	250	29
	Waste incinerator	300	21
Dust(mg/Nm3)	Melting furnace	300	<5
	Boiler	150	28
	Waste incinerator	250	38
Dioxins(ng-TEQ/Nm3)	Melting furnace	5	0.15
	Boiler	10	0
	Waste incinerator	10	0.0057

Water

Substance	Regulation Value	Actual Measurement (Max.)
BOD(mg/L)	25	21.6
SS(mg/L)	50	8.8
oil(mg/L)	5	<1
Dioxins(pg-TEQ/L)	-	-

Kobelco Engineered Construction Materials Co., Ltd.

Air

Substance	Facility	Regulation Value	Actual Measurement (Max.)
NOx(ppm)	Boiler	150	31
	Boiler	150	26
	Drying furnace	230	38
Dust(mg/Nm3)	Boiler	50	6
	Boiler	50	6
	Drying furnace	100	10
Dioxins(ng-TEQ/Nm3)	N/A	-	-

Water

Substance	Regulation Value	Actual Measurement (Max.)
COD(mg/L)	300	6.6
SS(mg/L)	300	35
oil(mg/L)	5	1
Dioxins(pg-TEQ/L)	-	-

Shinko Wire Company, Ltd. (Amagasaki Works)

Air			
Substance	Facility	Regulation Value	Actual Measurement (Max.)
NOx(ppm)	Boiler	150	31
	Heating furnace	130	24
	Heating furnace	180	19
Dust(mg/Nm3)	Boiler	50	<1
	Heating furnace	100	<2
	Heating furnace	100	<7
Dioxins(ng-TEQ/Nm3)	N/A	-	-

Water		
Substance	Regulation Value	Actual Measurement (Max.)
BOD(mg/L)	20	3.8
SS(mg/L)	30	6
oil(mg/L)	2	<1
Dioxins(pg-TEQ/L)	-	-

Shinko Wire Company, Ltd. (Onoe Works)

Air			
Substance	Facility	Regulation Value	Actual Measurement (Max.)
NOx(ppm)	Heating furnace	170	20
	Boiler	150	30
Dust(mg/Nm3)	Heating furnace	250	7
	Boiler	100	<1
Dioxins(ng-TEQ/Nm3)	N/A	-	-

Water		
Substance	Regulation Value	Actual Measurement (Max.)
BOD(mg/L)	15	6
SS(mg/L)	25	9
oil(mg/L)	2	<0.5
Dioxins(pg-TEQ/L)	-	-

Shinko Wire Company, Ltd. (Nishikinohama Works)

Air			
Substance	Facility	Regulation Value	Actual Measurement (Max.)
NOx(ppm)	N/A	-	-
Dust(mg/Nm3)	N/A	-	-
Dioxins(ng-TEQ/Nm3)	N/A	-	-

Water		
Substance	Regulation Value	Actual Measurement (Max.)
BOD(mg/L)	300	2
SS(mg/L)	300 mg/L or less	2
oil(mg/L)	5 mg/L or less	<1
Dioxins(pg-TEQ/L)	-	-

Shinko Bolt, Ltd.

Air			
Substance	Facility	Regulation Value	Actual Measurement (Max.)
NOx(ppm)	N/A	-	-
Dust(mg/Nm3)	N/A	-	-
Dioxins(ng-TEQ/Nm3)	N/A	-	-

Water		
Substance	Regulation Value	Actual Measurement (Max.)
BOD(mg/L)	25	4
SS(mg/L)	70	4
oil(mg/L)	3	<1
Dioxins(pg-TEQ/L)	-	-

Nippon Koshuha Steel Co., Ltd.

Air			
Substance	Facility	Regulation Value	Actual Measurement (Max.)
NOx(ppm)	Boiler	150	70
	Melting furnace	-	-
	Heating furnace	170	140
Dust(mg/Nm3)	Boiler	200	9.6
	Melting furnace	100	3.8
	Heating furnace	200	11
Dioxins(ng-TEQ/Nm3)	N/A	-	-

Water		
Substance	Regulation Value	Actual Measurement (Max.)
COD(mg/L)	20	6
SS(mg/L)	50	15
oil(mg/L)	3	0.5
Dioxins(pg-TEQ/L)	-	-

Shinko Aluminum Wire Co., Ltd.

Air			
Substance	Facility	Regulation Value	Actual Measurement (Max.)
NOx(ppm)	Heating furnace	180	64
	Heating furnace	180	44
	Heating furnace	180	44
Dust(mg/Nm3)	Heating furnace	100	26
	Heating furnace	100	2
	Heating furnace	100	2
Dioxins(ng-TEQ/Nm3)	N/A	-	-

Water		
Substance	Regulation Value	Actual Measurement (Max.)
COD(mg/L)	25	2.7
SS(mg/L)	90	1.8
oil(mg/L)	5	0.5
Dioxins(pg-TEQ/L)	-	-

Chofu Works

Air			
Substance	Facility	Regulation Value	Actual Measurement (Max.)
NOx(ppm)	Boiler	150	25
	Melting furnace	180	27
	Melting furnace	180	28
Dust(mg/Nm3)	Boiler	100	7
	Melting furnace	300	10
	Melting furnace	200	15
Dioxins(ng-TEQ/Nm3)	50m smoke stack	5	0.83

Water		
Substance	Regulation Value	Actual Measurement (Max.)
COD(mg/L)	30	4.7
SS(mg/L)	50	4
oil(mg/L)	2.5	<1
Dioxins(pg-TEQ/L)	10	0.081

Daian Works

Air			
Substance	Facility	Regulation Value	Actual Measurement (Max.)
NOx(ppm)	Melting furnace	120	57
	Boiler	110	45
	Heating furnace	120	34
Dust(mg/Nm3)	Melting furnace	100	37
	Boiler	100	<2
	Heating furnace	100	<2
Dioxins(ng-TEQ/Nm3)	Melting furnace	5	0.0053
	Melting furnace	1	0.022

Water		
Substance	Regulation Value	Actual Measurement (Max.)
COD(mg/L)	10	3
SS(mg/L)	10	2
oil(mg/L)	2 (鉍物油1)	<0.5
Dioxins(pg-TEQ/L)	-	-

Kobelco & Materials Copper Tube, Ltd.

Air			
Substance	Facility	Regulation Value	Actual Measurement (Max.)
NOx(ppm)	Melting furnace	200	32
	Melting furnace	200	22
	Heating furnace	180	17
Dust(mg/Nm3)	Melting furnace	200	4.4
	Melting furnace	200	2.9
	Heating furnace	200	4
Dioxins(ng-TEQ/Nm3)	N/A	-	-

Water		
Substance	Regulation Value	Actual Measurement (Max.)
COD(mg/L)	25	5.5
SS(mg/L)	70	3.5
oil(mg/L)	5	<1
Dioxins(pg-TEQ/L)	-	-

Shinko Metal Products Co., Ltd.

Air			
Substance	Facility	Regulation Value	Actual Measurement (Max.)
NOx(ppm)	Preheating furnace	170	<30
	Heating furnace	200	31
	Preheating furnace	180	28
Dust(mg/Nm3)	Preheating furnace	200	<5
	Heating furnace	250	<5
	Preheating furnace	100	5
Dioxins(ng-TEQ/Nm3)	N/A	-	-

Water		
Substance	Regulation Value	Actual Measurement (Max.)
COD(mg/L)	15	10
SS(mg/L)	25	110
oil(mg/L)	2	<1
Dioxins(pg-TEQ/L)	-	-

Company included in water quality data: Japan Superconductor Technology, Inc. Wire Rod Plant

In February 2021, the SS and other values exceeded regulatory limit. The required countermeasures taken.

Shinko Leadmikk Co., Ltd.

Air			
Substance	Facility	Regulation Value	Actual Measurement (Max.)
NOx(ppm)	N/A	-	-
Dust(mg/Nm3)	N/A	-	-
Dioxins(ng-TEQ/Nm3)	N/A	-	-

Water		
Substance	Regulation Value	Actual Measurement (Max.)
BOD(mg/L)	1500	17.7
SS(mg/L)	1500	4
oil(mg/L)	鉍油5(動植物150)	鉍油<1 (動植物<1)
Dioxins(pg-TEQ/L)	10	0.00045

Welding

Fujisawa Plant

Air			
Substance	Facility	Regulation Value	Actual Measurement (Max.)
NOx(ppm)	N/A	-	-
Dust(mg/Nm3)	N/A	-	-
Dioxins(ng-TEQ/Nm3)	N/A	-	-

Water		
Substance	Regulation Value	Actual Measurement (Max.)
BOD(mg/L)	60	3.3
SS(mg/L)	90	4
oil(mg/L)	10	<1
Dioxins(pg-TEQ/L)	-	-

Ibaraki Plant

Air

Substance	Facility	Regulation Value	Actual Measurement (Max.)
NOx(ppm)	Drying furnace	230	25
	Boiler	150	30
	Calcining furnace/Firing	200	47
Dust(mg/Nm3)	Drying furnace	200	2
	Boiler	100	2
	Calcining furnace/Firing	300	4
Dioxins(ng-TEQ/Nm3)	N/A	-	-

Water

Substance	Regulation Value	Actual Measurement (Max.)
BOD(mg/L)	300	175
SS(mg/L)	300	28
oil(Mineral oil)(mg/L)	5	0.9
Dioxins(pg-TEQ/L)	-	-

Saijo Plant

Air

Substance	Facility	Regulation Value	Actual Measurement (Max.)
NOx(ppm)	Drying furnace	250	47
	Drying furnace	230	43
Dust(mg/Nm3)	Drying furnace	350	3
	Drying furnace	200	1
Dioxins(ng-TEQ/Nm3)	N/A	-	-

Water

Substance	Regulation Value	Actual Measurement (Max.)
COD(mg/L)	-	-
SS(mg/L)	-	-
oil(Mineral oil)(mg/L)	5	1.2
Dioxins(pg-TEQ/L)	-	-

Fukuchiyama Plant

Air

Substance	Facility	Regulation Value	Actual Measurement (Max.)
NOx(ppm)	Heating furnace	160	79
	Heating furnace	160	58
	Boiler-	135	25
Dust(mg/Nm3)	Heating furnace	20	4
	Heating furnace	20	<1
	Boiler	10	<1
Dioxins(ng-TEQ/Nm3)	N/A	-	-

Water

Substance	Regulation Value	Actual Measurement (Max.)
COD(mg/L)	300	10.7
SS(mg/L)	300	24.8
oil(Mineral oil)(mg/L)	3	<0.5
Dioxins(pg-TEQ/L)	-	-

Hanshin Yosetsu Kizai Co., Ltd.

Air

Substance	Facility	Regulation Value	Actual Measurement (Max.)
NOx(ppm)	Melting furnace	180	<36
	Drying furnace	150	31
	Firing furnace	175	40
Dust(mg/Nm3)	Melting furnace	100	<60
	Drying furnace	100	<20
	Firing furnace	100	<30
Dioxins(ng-TEQ/Nm3)	N/A	-	-

Water

Substance	Regulation Value	Actual Measurement (Max.)
BOD(mg/L)	30	2.4
SS(mg/L)	30	10
oil(mg/L)	-	-
Dioxins(pg-TEQ/L)	-	-

Machinery

Harima Plant

Air

Substance	Facility	Regulation Value	Actual Measurement (Max.)
NOx(ppm)	N/A	-	-
Dust(mg/Nm3)	N/A	-	-
Dioxins(ng-TEQ/Nm3)	N/A	-	-

Water

Substance	Regulation Value	Actual Measurement (Max.)
COD(mg/L)	50	21
SS(mg/L)	90	20
oil(mg/L)	5	0.5
Dioxins(pg-TEQ/L)	-	-

Shinko Engineering Co., Ltd.

Air

Substance	Facility	Regulation Value	Actual Measurement (Max.)
NOx(ppm)	N/A	-	-
Dust(mg/Nm3)	Melting furnace	200	2
	Melting furnace	200	3
Dioxins(ng-TEQ/Nm3)	N/A	-	-

Water

Substance	Regulation Value	Actual Measurement (Max.)
COD(mg/L)	1.65 (kg/日)	1.46
SS(mg/L)	40	1
oil(mg/L)	5	1
Dioxins(pg-TEQ/L)	-	-

Company included in water quality data:Kobelco Construction Machinery Co., Ltd. Ogaki Factory

Kobelco Eco-Solutions Co., Ltd. (Harima Plant)

Substance	Facility	Regulation Value	Actual Measurement (Max.)
NOx(ppm)	Firing furnace	180	132
	Firing furnace	180	85
	Firing furnace	180	52
Dust(mg/Nm3)	Firing furnace	250	7
	Firing furnace	250	11
	Firing furnace	250	8
Dioxins(ng-TEQ/Nm3)	N/A	-	-

Substance	Regulation Value	Actual Measurement (Max.)
COD(mg/L)	40	4.9
SS(mg/L)	28	10
oil(mg/L)	5	2
Dioxins(pg-TEQ/L)	-	-

■ Electric Power

Kobelco Power Kobe Inc.

Substance	Facility	Regulation Value	Actual Measurement (Max.)
NOx(ppm)	Boiler	24	60.4
	Boiler	24	16.5
Dust(mg/Nm3)	Boiler	10	1
	Boiler	10	4
Dioxins(ng-TEQ/Nm3)	N/A	-	-

Substance	Regulation Value	Actual Measurement (Max.)
COD(mg/L)	15	3
SS(mg/L)	30	12
oil(mg/L)	1	<1
Dioxins(pg-TEQ/L)	-	-

*The latest environmental data from Kobelco Power Kobe Inc. can be viewed from our website (updated monthly). (https://www.kobelco.co.jp/about_kobelco/csr/information)

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NOx result exceeded an agreement standard on Jan 2021. (Though, it complied with the regulation value based on the Air Pollution Control Act: 200ppm.) We conducted investigation of the cause and countermeasure. Thereafter, the result comply with standard.

Kobelco Power Moka Inc.

Substance	Facility	Regulation Value	Actual Measurement (Max.)
NOx(ppm)	Gas turbine	70	4.1
	Gas turbine	70	3.7
	Boiler	130	61
Dust(mg/Nm3)	Gas turbine	50	<5
	Gas turbine	50	<5
	Boiler	100	<1
Dioxins(ng-TEQ/Nm3)	N/A	-	-

Substance	Regulation Value	Actual Measurement (Max.)
BOD(mg/L)	-	-
SS(mg/L)	-	-
oil(mg/L)	-	-
Dioxins(pg-TEQ/L)	-	-

*The latest environmental data from Kobelco Power Moka Inc. can be viewed from our website (updated monthly). (https://www.kobelco.co.jp/about_kobelco/csr/information)

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■ Head Office

Takasago Works

Substance	Facility	Regulation Value	Actual Measurement (Max.)
NOx(ppm)	Boiler	130	13
	Heating furnace	170	55
	Steel powder reduction	150	36
Dust(mg/Nm3)	Boiler	100	0.4
	Heating furnace	250	1
	Steel powder reduction	200	9
Dioxins(ng-TEQ/Nm3)	Steel powder electric furnace	5	0.00092

Substance	Regulation Value	Actual Measurement (Max.)
COD(mg/L)	15	6.4
SS(mg/L)	26	12
oil(mg/L)	1.5	<0.5
Dioxins(pg-TEQ/L)	-	-

Company included in water quality data: Sputtering Target Division of Kobelco Research Institute, Inc.

Kobe Corporate Research Laboratories

Substance	Facility	Regulation Value	Actual Measurement (Max.)
NOx(ppm)	Cold/hot water generator	48.57	34
Dust(mg/Nm3)	Cold/hot water generator	50	2
Dioxins(ng-TEQ/Nm3)	N/A	-	-

Substance	Regulation Value	Actual Measurement (Max.)
BOD(mg/L)	2,000	2.6
SS(mg/L)	2,000	8
oil(mg/L)	5	<1
Dioxins(pg-TEQ/L)	10	0.068

Kobelco Construction Machinery Co., Ltd. (Hiroshima Factory)

Air

Substance	Facility	Regulation Value	Actual Measurement (Max.)
NOx(ppm)	Frame undercoating	230	17
	Frame finishing coating	230	29
	ATT coating	230	6
Dust(mg/Nm3)	Frame undercoating	200	<5
	Frame finishing coating	200	<5
	ATT coating	200	<4
Dioxins(ng-TEQ/Nm3)	N/A	-	-

Water

Substance	Regulation Value	Actual Measurement (Max.)
COD(mg/L)	-	-
SS(mg/L)	-	-
oil(mg/L)	35	24
Dioxins(pg-TEQ/L)	-	-

Kobelco Construction Machinery Co., Ltd. (Ogaki Factory)

Air

Substance	Facility	Regulation Value	Actual Measurement (Max.)
NOx(ppm)	N/A	-	-
Dust(mg/Nm3)	N/A	-	-
Dioxins(ng-TEQ/Nm3)	N/A	-	-

Water

Water quality data is included in Shinko Engineering Co., Ltd. Head Office.

Kobelco Construction Machinery Co., Ltd. (Okubo factory)

Air

Substance	Facility	Regulation Value	Actual Measurement (Max.)
NOx(ppm)	Drying furnace	230	23
	Drying furnace	230	36
	No.8 pipe boom drying	200	11
Dust(mg/Nm3)	Drying furnace	200	4
	Drying furnace	200	<1
	No.8 pipe boom drying	200	1
Dioxins(ng-TEQ/Nm3)	N/A	-	-

Water

Substance	Regulation Value	Actual Measurement (Max.)
BOD(mg/L)	600	36
SS(mg/L)	600	82
oil(mg/L)	5	1.5
Dioxins(pg-TEQ/L)	-	-

Shinko Industrial Co., Ltd.

Air

Substance	Facility	Regulation Value	Actual Measurement (Max.)
NOx(ppm)	N/A	-	-
Dust(mg/Nm3)	N/A	-	-
Dioxins(ng-TEQ/Nm3)	N/A	-	-

Water

Substance	Regulation Value	Actual Measurement (Max.)
BOD(mg/L)	160	1
SS(mg/L)	200	7.3
oil(mg/L)	5	<0.5
Dioxins(pg-TEQ/L)	-	-