

IMPACT ON 2020-21 WINTER PRODUCTION CUTS

October 19, 2020

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The Ministry of Ecology and Environment has issued a notice on October 16, urging enterprises to cut production, as well as reducing excess capacity and eliminating outdated capacity, in order to combat air pollution across the Yangtze River Delta Region (Jiangsu, Zhejiang, Anhui provinces) during the autumn and winter season of 2020-2021.

It is understood that 85 cities in Shanghai, Nanjing, Wuxi, Hangzhou, Ningbo and Hefei will be affected. The duration of the production cuts varies across different sectors, and is expected to last around 6 months till March 2021.

Industries that are impacted from the production curbs include iron and steel, building materials, nonferrous metals, coking, casting, petrochemicals, chemicals, packaging and printing, and industrial coating.

In this special report we present you our analysts survey on the production cuts across the China Metals industry in this region and others.

For more information on the China ferrous or nonferrous metals updates, please visit our website www.metal.com and our social media channels on Facebook, Linkedin and Twitter. We also encourage you to subscribe to our new weekly email newsletter updates- The SMM Midweek Roundup and the SMM China Inventory Summary & Data Wrap.

Key Industries that are affected by the autumn-winter production curbs

- Alumina
- Aluminum
- Auto manufacturing
- Blast furnace steel mills
- Brick kilns
- Carbon
- Carbon black manufacturing
- Cellulose ether
- Cement
- Ceramics
- Coal-based nitrogen fertilizer
- Coating manufacturing
- Coking
- Copper smelting
- Electric-arc furnace (EAF) mills
- Engineering machinery manufacturing
- Ferroalloy
- Furniture manufacturing
- Glass
- Glass steel (fibre reinforced plastic products)
- Industrial coating
- Ink manufacturing
- Lead smelting
- Lime kiln casting
- Molybdenum smelting
- Non-ferrous metal rolling
- Packaging and printing
- Pesticide manufacturing
- Petrochemicals
- Pharmaceuticals
- Plastic artificial leather and synthetic leather manufacturing
- Refractory materials
- Rock mineral wool
- Rubber products manufacturing
- Secondary copper
- Shoe manufacturing
- Waterproof building materials manufacturing & refining
- Wood-based panels manufacturing
- Zinc smelting

Ferrous

Steel

Steel production cuts at Tangshan's for autumn-winter season 2020-2021

Tangshan, China's largest steel-producing city, has imposed sintering and blast furnaces restrictions for the autumn-winter season of 2020-2021.

The output restrictions run from October 1 to March 31, 2021, according to a city government notice issued on October 10. According to the documents, production will be curbed and limited according to a ratio ranging from 10% to 45%. It is understood that 20 mills have been upgraded since last winter, while 10 steel mills are ungraded as they will be undergoing relocation.

	Production cut in Tangshan autumn-winter season 2019-2020						Production cut in Tangshan autumn-winter season 2020-2021			
Steel Mill		September 24	to 30,2019	November 15, 2019	to March 15, 2020	October 1, 2020 to March 31,2021				
	Grade	Sintering capacity affected	Pig iron capacity affected	Sintering capacity affected	Blast Furnace Output affected (%)	Grade	Restriction requirement	Sintering capacity affected	Pig iron capacity affected	
Shougang Qianan	В	43.52	54.49	52.80	76.41	А	Independent output cut	-	-	
Shougang Jingtang	В	53.69	54.12	65.15	88.04	A	Independent output cut	-	-	
Donghai Steel		64.60	24.66	35.20	40.91	В	10%	52.3	17.6	
Ganglu Steel		12.70	31.32	43.43	56.76	В	10%	10.3	25.1	
Jinxi Steel		54.49	38.16	52.26	62.07	B-	20%	88.2	82.6	
Jinxi Special Steel		42.84	15.41	10.27	25.07	B-	20%	69.3	25	
Donghai SpecialSteel	C1	24.84	38.47	44.08	78.41	B-	20%	40.2	70.3	
Tangshan Steel		50.67	53.88	34.65	92.45	Relocation		-	-	
Jiujiang Rod Product		9.37	24.53	20.09	65.58	B-	20%	15.2	65.4	
Delong Steel		14.36	12.82	40.99	31.29	B-	20%	23.2	18.2	
Zongheng Steel		76.44	49.32	7.58	80.22	В	10%	61.8	35.4	

Tang Stainless Steel		42.04	6.78	20.33	14.00	D	45%	153.0	27
Guoyi Special Steel		42.04	21.39	108.20	40.48	Relocation		-	-
Zhayi Steel		39.95	7.64	59.51	14.47	С	35%	113.1	21.7
Ruifeng Steel	C2	25.64	26.01	59.51	63.12	B-	20%	41.5	50.5
Rongcheng Special Steel		16.15	12.82	56.54	12.13	С	35%	45.7	18.2
Huaxi Steel		13.50	13.56	36.30	24.97	Relocation	-	-	-
Yanshan Steel		58.44	45.99	22.86	93.68	B-	20%	94.5	57.2
Xinda Steel		44.38	34.15	19.11	56.58	B-	20%	71.8	42.6
Donghua Steel (includ Kaiheng)		66.08	17.63	82.72	32.67	B-	20%	106.9	48.7
Songting Steel		90.92	21.21	62.83	40.13	B-	20%	147.1	30.6
Tangshan Plate		41.49	35.63	93.54	53.55	С	35%	117.5	72.8
Xinbaotai Steel		87.78	19.60	128.71	27.07	B-	20%	142.0	23.2
Wenfeng Special Steel		24.84	12.82	58.73	24.27	В	10%	20.1	9.1
Tianzhu Steel		40.07	18.74	124.26	40.37	Relocation	-	-	-
Jingan Steel		76.56	12.82	35.17	24.27	С	35%	216.8	50.8
Chunxing Special Steel		25.58	12.82	64.82	27.73	С	35%	72.4	31.8
Rongxin Steel		70.34	13.07	123.86	38.40	D	45%	256.0	53.1
Jianlong Steel	C3	26.75	13.07	41.39	22.00	С	35%	75.7	28.9
Jinma Steel		19.79	15.29	113.79	42.80	Relocation	-	-	-
Tangyin Steel		63.92	14.55	43.28	40.93	С	35%	181.0	53.7
-	Total output (10,000 mt)	1363.81	772.77	1761.97	1430.82	Total out	put (10,000 mt)	2215.6	959.5

Source: SMM

Summary

Restriction on pig iron capacity in 2020-2021 totalled 9.6 million mt (excluding relocation), lower than the autumn-winter period in 2019-2020. The effectiveness of output restriction was less than 50% last year. It is understood that new policies have yet to be issued and production cuts were

based on notices released during the holiday period. Thus, the impact of restriction in Tangshan is limited. Steel products prices are likely to be dampened.

Shanghai:

- 1. **Ultra-low emission transformation:** Complete the ultra-low emission transformation of the three 600m² sintering machines and 5.53 million mt of coke capacity at Baowu Group.
- 2. **Industrial structure adjustment:** Complete the adjustment and upgrading of enterprises involved in the "Optimization" Action Implementation Plan (2018-2020), and complete no less than 700 industrial structure adjustment tasks in the city.

Jiangsu Province:

- 1. **Ultra-low emission transformation**: Complete 90 million mt of ultra-low emission transformation.
- 2. **Industrial restructuring**: Complete withdrawal or relocation of all smelting capacities within 10 kilometers of Taihu Lake, 600 m³ blast furnaces and 50 mt or less EAFs within 20 kilometers of the lake, and chemical companies within 1 km on both sides of the main and tributary streams of the Yangtze River that are not in the chemical park.

Zhejiang Province:

- 1. **Ultra-low emission transformation**: Complete 5.6 million mt of ultra-low emission transformation.
- 2. **Industrial restructuring**: Complete the comprehensive renovation of 100 key industrial parks.

Anhui Province:

- 1. **Ultra-low emission transformation**: Complete ultra-low emission transformation of 6.7 million mt of crude steel production capacity.
- 2. **Industrial restructuring**: Intensify the renovation of existing chemical parks, and promote relocation of a number of heavily-polluting enterprises such as producers of cement, flat glass, coking, and chemical industries.

According to the SMM survey, steel mills in the Yangtze River Delta region have basically completed ultra-low emission transformation, so this environmental protection program has limited impact on steel mill production.

Province	Capacity (10,000 mt)	Impact
FIUVILLE	(10,000 1111)	IIIIpact
		Completed ultra-low emission
Jiangsu	13198	transformation; limited impact
		Completed ultra-low emission
Zhejiang	1430	transformation; limited impact
		Completed ultra-low emission
Anhui	3670	transformation; limited impact
		Completed ultra-low emission
Shanghai	1622	transformation; limited impact

Source: SMM

Downstream: At present, there are no signs of implementation in steel mills and logistics, and construction sites are also in peak construction season. The market has not paid much attention to this document, and the substantial impact has not yet been reflected. In 2019/20 winter the affect on steel supply was reduced versus the previous year, while the effect on demand and especially logistics was more noticeable. With many mills achieving higher environmental standards this year, again it seems the impact on supply will be less than a year ago, so the key question for steel markets is how much disruption will be seen to demand and logistics, so overall the winter season likely adds more downside risk to steel prices and may cause production cuts due to demand loss and negative margins rather than stringent environmental controls.

Non-ferrous

Aluminium

Summary

The expected impact of the production restriction in the winter season is relatively limited. The main reason is that after several rounds of environmental protection reforms, most companies have met the emission requirements, and only the carbon anode industry has a rigid production restriction requirement. The impact is concentrated on the production capacity of aluminium and alumina. If pollution becomes worse on a temporary/weather related basis, adjustments on the production restriction may happen in the future.

Production restrictions are most serious in Henan, but even here still with relatively limited impact.

In terms of transportation, at present, there are restrictions on cars under the national level 5 in Hebei near Beijing and some regions in Jiangsu, but aluminium supply chain freight has not been affected.

			Impact on the alu	minium industry
Region	Metal	Industry	Total capacity (10,000 mt)	Comment
East China		Aluminium	912.5	No impact is expected. All primary aluminum enterprises in Shandong have completed environmental protection reforms.
		Alumina	2900	Shandong alumina production enterprises have all reached emission standards, and the actual impact is expected to be relatively limited. The local government has not yet classified alumina companies, and specific policies have not been issued this year.
	Aluminium	Secondary aluminium	257	Processing companies in east China have not received any restrictions on production, and some areas require the installation of online monitoring equipment. Only some areas in Jiangsu have heard that vehicles below the national level five are required to be restricted, and the freight has not changed.
		Prebaked anode	786	Shandong has related production restriction requirements for the carbon industry. Most of the companies indicated that the production limit stood at 15%-20%, and some companies said that the PM2.5 index is high, and there will be emergency shutdowns. At present, most companies have not launched full production capacity, the overall impact on the output is currently not too serious.
		Die-cast	425	Shandong die-casting enterprise said that no inspections have been conducted yet, there is no immediate impact.
Central China		Aluminium		The impact is expected to be relatively limited, and the reduction in production may be reflected in the nature of maintenance. The heating season this year is similar to the intensity of the heating season in 2019-2020, and primary aluminum plants such as Wanji and Yugang Longquan in Henan and Hong Kong have not received specific notifications.
	Aluminium	Alumina	1285	Large-scale alumina plants have completed environmental protection transformations, and small-scale alumina plants that have not completed the transformation have insufficient operating rates, and the actual impact is expected to be limited.
		Secondary aluminium	180	No impact at present
		Prebaked anode	361	The policies of various cities in Henan are different. The requirements in Zhengzhou are relatively strict. Carbon companies suspend production in turn for two months. Other regions also have partial production restrictions.
		Die-cast	85	No impact at present
North China	Aluminium	Aluminium	763.2	The impact is expected to be relatively limited, and the reduction in production may be reflected in the nature of maintenance, which is similar to the intensity of the heating season in 2019-2020, and the company has not received specific notifications.
		Alumina	2605	Most alumina plants have completed environmental protection renovations, and it is expected that production cuts this year will still depend on weather conditions, with limited impact.
		Secondary aluminium	100	No notice has been received yet, and there are restrictions on cars under the national level 5 in Hebei near Beijing.
		Prebaked anode	317.5	Production companies in Hebei responded that environmental protection was at a high level throughout the year. The limited production in this winter has not changed much compared to the past, and the impact in Inner Mongolia is not significant.
		Die-cast	25	No impact at present
		Aluminium	1401	Limited Impact
		Alumina	-	NA
Northwest China	Aluminium	Secondary aluminium	50	No impact at present
		Prebaked anode	676	Little impact
Note: Fast China (Sh.	anghai, Jiangsu, Zheji	Die-cast	hui)	No impact at present

Note: East China (Shanghai, Jiangsu, Zhejiang, Shandong and Anhui)

Central China(Hubei, Hunan, Henan and Jiangxi)

Northwest China (Shaanxi, Gansu, Xinjiang, Qinghai, Ningxia)

North China (Beijing, Tianjin, Hebei, Shanxi and Inner Mongolia)

Copper

		Impact on the c	opper industry	
Region	Metal	Industry	Total capacity (10,000 mt)	Comment
East China		Smelter	415.6	Completed environmental protection equipment, basically unaffected Completed environmental protection
	Copper	Copper cathode rod	652.5	equipment, basically unaffected Recycling copper rod companies in the region
		Secondary copper rod	15	are basically unaffected Enameled wire companies in this area are
		Enameled wire	110	basically unaffected
		Smelter	235	Complete environmental protection equipment, basically unaffected
		Copper cathode rod	124.8	Completed environmental protection equipment, basically unaffected Recycled copper rod companies in Henan
Central China		Secondary copper rod	263	Province in this region have been affected to some extent. The production capacity involved is about 600,000 mt. Some companies expect the output in October to drop by 10-15%.
	Copper	Enameled wire	23	The enameled wire companies in Henan Province in this region have been greatly affected, involving a production capacity of about 170,000 mt. Some companies have already suspended production for about a week in September due to environmental issues, and likely to be affected in October. Some companies are worried about protection being halted for a long time.
North China		Smelter	33	Completed environmental protection equipment, basically unaffected
	Copper	Copper cathode rod	74	Completed environmental protection equipment, basically unaffected
		Secondary copper rod	86	Secondary copper companies in Tianjin and Hebei in this region have been affected to some extent, involving a production capacity of about 800,000 mt. Some companies expect that the output in October will be reduced by about 10%
		Enameled wire	2	Enameled wire companies in this area are not much affected
		Smelter	80	Completed environmental protection equipment, basically unaffected
Northwest China	Copper	Copper cathode rod	32	Completed environmental protection equipment, basically unaffected
		Secondary copper rod	-	NA Enameled wire companies in this area are
		Enameled wire	3	Enameled wire companies in this area are basically unaffected

Note : East China (Shanghai, Jiangsu, Zhejiang, Shandong and Anhui)

Central China (Hubei, Hunan, Henan and Jiangxi)

Northwest China (Shaanxi, Gansu, Xinjiang, Qinghai, Ningxia)

North China (Beijing, Tianjin, Hebei, Shanxi and Inner Mongolia)

Company	Smelter	Main pollutants	Emission concentration (2019 H1)	Emission concentration (2020 H1)	No of outlets	Emission standard(Old SO2400mg/m³,Particulate matter80mg/m³, New SO2100mg/m³,Particulate matter10mg/m³)	Half-year total emmission(t)	Approved total emission(t/a)	Over standard emission
	Jinlong Copper (Tongling	Sulphur dioxide	61.01,56.59,82. 26.9;36.4;39. 89,73.33mg/m³ 11.74mg/m³	26.9;36.4;39.4, 11.74mg/m³	4	Emission Standard of Pollutants for	136.5	1155	Not exceeding the
	(1000,000	Particulate matter	11.05,12.41,8,8 .37mg/m³	11.05,12.41,8,8 10.45;6.14;6.55 .37mg/m³ ;4.66mg/m³	4	Copper, make and codar massines	45.56	170	stallualu
	Jinguan Copper(Tongling	Sulphur dioxide	34.08mg/m³	25.35mg/m³	, 1	Emission Standard of Pollutants for	57.16	1062.95	Not exceeding the
	(all oppropt	Particulate matter	4.49mg/m² 59.13mg/m³	1.53mg/m ³ 59.26mg/m ³	I Exhaust outlet	copper, mickel and cobait mustifes	3.52	330	Stalldald
Tongling			123mg/m³	122mg/m³	Three systems of acid production				
Metals Group					1# Environmental				
	Chifeng Jinjian Copper (130,000 mt)	Sulphur dioxide	85.47mg/m³	85.5mg/m³	protection flue gas collection and desulphurization	Emission Standard of Pollutants for Copper, Nickel and Cobalt Industries	97.22	396	Not exceeding the standard
					2# Environmental				
					protection flue gas collection and de-				
			113.03mg/m³	114.10mg/m³	sulphurization				
	Zhangjiagang Lianhe	Sulphur dioxide	10.01mg/m³	6.85mg/m³	1	Emission Standard of Pollutants for	2.17	62.07	Not exceeding the
	Copper(300,000 mt)	Particulate matter	5.45mg/m³	2.3mg/m³	1	Copper, Nickel and Cobalt Industries	0.66	11.05	standard
10000	Guixi Smelter(1.02	Sulphur dioxide	124.3mg/m³	81mg/m³	10	Emission Standard of Pollutants for	505	0099	Not exceeding the
Jidiigai Copper	million mt)	Particulate matter	22.5mg/m³	13.1 mg/m 3	10	Copper, Nickel and Cobalt Industries	81.4	880	standard
	Soutwestern	Sulphur dioxide	90mg/m³	40.44mg/m³	7	Emission Standard of Pollutants for	90.53	2248.38	Not exceeding the
	Copper(450,000 mt)	Particulate matter	10.5mg/m³	10.67mg/m³	7	Copper, Nickel and Cobalt Industries	21.73	345.26	standard
	Chinalco Southeastern	Sulphur dioxide	20mg/m³	6.8mg/m³	36	Emission Standard of Pollutants for	11.7	331.68	Not exceeding the
Yunnan Copper	Copper(400,000 mt)	Particulate matter	2.9mg/m³	4.6mg/m³	36	Copper, Nickel and Cobalt Industries	4.81	195.44	standard
	Chifeng Yuntong	Sulphur dioxide	250mg/m³	130mg/m³	23	Emission Standard of Pollutants for	57.66	1061.9	Not exceeding the
	Nonferrous Metals(400,000 mt)	Particulate matter	12.75mg/m³	3mg/m³	23	Copper, Nickel and Cobalt Industries	0.32	129.05	standard
	Zijin Copper(Longyan	Sulphur dioxide	44.685mg/m³	39.10mg/m³	12	Emission Standard of Pollutants for	121.3	86.679	Not exceeding the
	300,000 mt)	Particulate matter	12.029mg/m³	11.49mg/m³	12	Copper, Nickel and Cobalt Industries	38.34	371.48	standard
Zijin Mining	Jilin Zijin Copper(Huichun	Sulphur dioxide	131.9mg/m³	60.11- 213.57mg/m³	1	Emission Standard of Pollutants for	170.62	570	Not exceeding the
	100,000 mt)	Particulate matter	5.98mg/m³	4.67- 11.79mg/m³	1	Copper, Nickel and Cobalt Industries	14.2	82.5	standard
Vunnan Tin	Vinnan Conner(Geiiu	Sulphur dioxide	34 41mg/m³	1.64- 25 68mø/m³	'n	Emission Standard of Pollutants for	12.05	20 80Z	Not exceeding the
Company	100,000 mt)	Darticulate matter	13 071mø/m³	5.11- 8.46mg/m³	-	Copper, Nickel and Cobalt Industries	11 83	140 09	standard
Total	A OF million	במורורמומרב ווומררבו	111.6/111	0.40118/ 111	4		11.03	140.33	
lotal	4.03								

Lead

		Impact on the I	ead industry	
Region	Metal	Industry	Total capacity (10,000 mt)	Comment
		Primary lead	10	Jiangsu, Zhejiang, and Anhui: The government has not issued any documents to enterprises, and the environmental protection level of lead smelting enterprises in these areas is relatively high, production is not expected to be greatly affected. Shandong: The government has issued a document to
East China	Lead	Secondary lead	232	classify key industries into four grades: A, B, C, and D: Grade A enterprises can remain production during a heavy pollution emergency, and take independent measures to reduce emissions; Grade B enterprises can reduced emission reductions during the heavy pollution emergency period; Grade C and Grade D enterprises will increase emission reduction measures in accordance with regulations during the heavy pollution emergency. At present, the environmental protection level of Shandong lead smelting enterprises is relatively high, and there is no severely polluted weather, production is not affected.
		Primary lead	314	Henan: The government has issued a
Central China Lead	Lead	Secondary lead	114	document. As for previous years, there will be measures to limit production when there is a red alert of pollution. However, there is no heavy pollution and the production of enterprises is normal.
North China	Lead	Primary lead	30	Hebei: Environmental protection is still a routine inspection, which has not affected enterprise production. Shanxi: Enterprise production is currently unaffected.
		Secondary lead Primary lead	41 12	
Northwest China	Lead	Secondary lead	6	Unaffected

Note:

Primary lead: Smelters with refined lead as the main product
Secondary lead: Smelters with secondary lead as the main product
East China (Shanghai, Jiangsu, Zhejiang, Shandong and Anhui)
Central China (Hubei, Hunan, Henan and Jiangxi)
Northwest China (Shaanyi, Gansu, Yinjiang, Qinghai, Ningyia)

Northwest China (Shaanxi, Gansu, Xinjiang, Qinghai, Ningxia) North China (Beijing, Tianjin, Hebei, Shanxi and Inner Mongolia)

Nickel

			Impact on the n	ickel industry	
Region	Metal	Industry	Annual capacity	Proportion in China	Comment
	Nickel downstream	Electroplating	280 million m²	20%	Electroplating companies are concentrated in south China, and some production lines located in east China. SMM survey showed that the restrictions have not yet affected the output.
	sectors	Alloy casting	NA	40%	There are a large number of Grade B enterprises in east China, and they have not yet received a production restriction notice. If extreme weather occurs, companies will reduce production by about 20%.
North China	Nickel	NPI	164,000 mt Ni	21%	Accroding to enterprises, the factory has already received the notice. Grade A enterprises will not be affected. The requirements of Grade B enterprises are as follows: 1. Yellow alert: stop using heavy-duty trucks (China 4 and below) for transportation 2. Orange alert: the vehicle requirements are the same as above, and the production limit is 30% 3. Red alert: the vehicle restrictions same as the above, and production needs to be stopped. The surveyed companies are Grade B companies, and the number of red alerts in the past two years is relatively low, but the yellow and orange alerts will increase transportation costs in the factories.
		Nickel sulphate	38,000 mt Ni	15%	The policy has no impact on the production of the nickel sulphate plant and the precursor plant. The process of producing nickel sulphate and precursors has no exhaust gas discharge, and only waste water is discharged at most. Nickel salt plants and precursor plants have great importance to environmental protection, and their designs for environmental protection also meet government requirements.
North China	Nickel downstream sectors	Alloy casting	NA	30%	Alloy enterprises, mostly large alloy and special steel factories in Beijing, Tianjin and Hebei. The production types are those with secondary and above deep processing, producing automobile plates, home appliance plates, color-coated plates, rails, ship steel, bridge steel and special steel bars and other high-end products. SMM survey showed that most companies have completed their emissions transformation and acceptance, and they are rated as A-class companies for environmental protection production restrictions, so they will not be affected for the time being.
		NPI	16,000 mt Ni	2%	The manufacturer said that it has no impact at the moment
	Nickel	Nickel sulphate	22,000 mt Ni	9%	The policy has no impact on the production of the nickel sulphate plant and the precursor plant. The process of producing nickel sulphate and precursors has no exhaust gas discharge, and only waste water is discharged at most. Nickel salt plants and precursor plants have great importance to environmental protection, and their designs for environmental protection also meet government requirements.

Zinc

		Impact o	n the zinc industry	
Region	Metal	Industry	Total capacity (10,000 mt)	Comment
		Smelter	12	No impact at present
East China	Zinc	Zinc oxide	40.26	The impact on companies that use natural gas is small; companies may consider converting raw materials from zinc ash to zinc ingot production to avoid the impact; if the red warning is reached, gas and electricity will be restricted and production will be reduced by 50%
	ZIIIC	Galvanising	800.8	Jiangsu: The environmental protection impact is small, mainly for companies that do not meet the standards;
		Die-cast zinc alloy	93	Anhui: There is still routine inspection of environmental protection, and the new policy has not launched
		Smelter	124	No impact at present
	Zinc	Zinc oxide	0.8	Henan: 50% reduction in production after November
Central China		Galvanising	39.2	Hubei: Environmental protection aims at comprehensive rectification of sewage companies
		Die-cast zinc alloy	2	No relevant policies announced yet
North China Zinc	Smelter	67.5	No impact at present	
		Zinc oxide	4	If the red alert is reached, production cut is required.
	Zinc	Galvanising	1843	Tianjin: No impact at present, and no relevant policies have been issued. In the past, production restrictions were based on the weather. The yellow alert was a 20-30% reduction in production, the orange alert was 50% cuts, and red alert means complete halt in production Hebei: No specific documents
		Die-cast zinc alloy	0.9	Qingyuan District, Baoding: Production restrictions have begun, regardless of whether the environmental protection equipment meets the standards or not, all production is reduced by 50%
		Smelter	143	No impact at present
Northwest China	Zinc	Zinc oxide	5.8	There is no relevant policy for the time being
Note: East China (S		Galvanising	8	There is no relevant policy for the time being

Note: East China (Shanghai, Jiangsu, Zhejiang, Shandong and Anhui)

Central China (Hubei, Hunan, Henan and Jiangxi)

Northwest China (Shaanxi, Gansu, Xinjiang, Qinghai, Ningxia)

North China (Beijing, Tianjin, Hebei, Shanxi and Inner Mongolia)

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