Indian Minerals Yearbook 2014

(Part- I)

53rd Edition

STATE REVIEWS
(Chhattisgarh)

(ADVANCE RELEASE)

GOVERNMENT OF INDIA
MINISTRY OF MINES
INDIAN BUREAU OF MINES

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CHHATTISGARH

Mineral Resources

Chhattisgarh is the sole producer of tin concentrates and is one of the leading producers of coal, dolomite, bauxite and iron ore. The State accounts for about 36% tin ore, 18% iron ore (hematite), 17% coal and 11% dolomite resources of the country. Important mineral occurrences of the State are **bauxite** in Bastar, Bilaspur, Dantewada, Jashpur, Kanker, Kawardha (Kabirdham), Korba, Raigarh & Sarguja districts; **china clay** in Durg & Rajnandgaon districts; **coal** in Koria, Korba, Raigarh & Sarguja districts; **dolomite** in Bastar, Bilaspur, Durg, Janjgir-Champa, Raigarh & Raipur districts; and **iron ore (hematite)** in Bastar district, Bailadila deposit in Dantewada district, Chhote Dongar deposit in Kanker district, Rowghat, Chargaon, Metabodeli & Hahaladdi deposits in Rajnandgaon district, Boria Tibbu deposits in Dalli-Rajhara area, Durg district. Bailadila-Rowghat hill ranges in the State are considered to be one of the biggest iron ore fields in India. **Limestone** occurs in Bastar, Bilaspur, Durg, Janjgir-Champa, Kawardha (Kabirdham), Raigarh, Raipur & Rajnandgaon districts; **quartzite** in Durg, Raipur, Rajnandgaon & Raigarh districts; and **talc/soapstone/steatite** in Durg & Kanker districts.

Other minerals found in the State are **corundum** in Dantewada district; **diamond** and other gemstones in Raipur, Mahasamund and Dhamtari districts; **fire clay** in Bilaspur, Raigarh and Rajnandgaon districts; **fluorite** in Rajnandgaon district; **garnet** & **marble** in Bastar district; **emerald** and **gold** in Raipur district; **granite** in Bastar, Kanker & Raipur districts; **quartz/silica sand** in Durg, Jashpur, Raigarh, Raipur & Rajnandgaon districts; and **tin** in Bastar & Dantewada districts (Table - 1). The reserves/resources of coal are given in Table - 2.

Exploration & Development

The details of exploration activities conducted by GSI & state DGM, during 2013-14 are furnished in Table - 3.

Table – 2 : Reserves/Resources of Coal as on 1.4.2014 : Chhattisgarh

(In million tonnes)

Coalfield	Proved	Indicated	Inferred	Total
Total	**16052.01**	**33252.70**	**3228.21**	**52532.92**
Sohagpur	94.30	10.08	-	104.38
Sonhat	199.49	2463.86	1.89	2665.24
Jhilimili	228.20	38.90	-	267.10
Chirimiri	320.33	10.83	31.00	362.16
Bisrampur	1010.90	603.80	-	1614.70
Bisrampur (East)	-	164.82	-	164.82
Lakhanpur	455.88	3.35	-	459.23
Panchbahini	-	11.00	-	11.00
Hasdeo-Arand	1599.72	3665.40	263.70	5528.82
Sendurgarh	152.89	126.32	-	279.21
Korba	5651.14	5936.50	168.02	11755.66
Mand-Raigarh	6219.76	17699.13	2553.92	26472.81
Tatapani-Ramkola	50.43	2587.68	209.68	2847.79

Source: *Coal Directory of India, 2013-14.*

Table – 1 : Reserves/Resources of Minerals as on 1.4.2010 : Chhattisgarh

Mineral	Unit	Reserves				Remaining resources								Total resources (A+B)
		Proved STD 111	Probable		Total (A)	Feasibility STD211	Pre-feasibility		Measured STD331	Indicated STD332	Inferred STD333	Reconnaissance STD334	Total (B)	
			STD121	STD122			STD221	STD222						
Bauxite	'000 tonnes	21246	48435	4818	74499	3992	4069	875	33764	11792	23241	18747	96480	170979
China Clay	'000 tonnes	834	-	344	1178	480	765	1076	-	-	11512	-	13832	15009
Corundum	tonne	-	310	288	597	-	-	-	-	-	288	-	288	885
Diamond	carat	-	-	-	-	-	-	-	-	-	1304000	-	1304000	1304000
Dolomite	'000 tonnes	41628	12984	6225	60836	19289	50384	24355	150795	24837	514235	1950	785846	846682
Fireclay	'000 tonnes	-	23	12	35	-	27	-	7180	3400	10336	-	20943	20978
Fluorite	tonne	-	-	-	-	65889	153132	9288	185485	5573	126088	-	545455	545455
Garnet	tonne	-	-	-	-	-	-	-	-	-	28800	-	28800	28800
Gold														
Ore (primary)	tonne	-	-	-	-	-	-	-	-	600000	4241033	-	4841033	4841033
Metal (primary)	tonne	-	-	-	-	-	-	-	-	1.8	3.71	-	5.51	5.51
Granite (Dim. stone)	'000 cu m	-	-	-	-	-	-	-	-	-	50057	-	50057	50057
Iron ore (Hematite)	'000 tonnes	636460	-	263650	900110	114382	5080	15610	107625	527563	872739	748715	2391714	3291824
Limestone	'000 tonnes	856930	10962	30004	897896	46468	742220	80465	1331984	480812	5379600	-	8061550	8959446
Marble	'000 tonnes	-	-	-	-	-	-	-	-	-	83000	-	83000	83000
Quartz-silica sand	'000 tonnes	141	-	46	187	385	-	620	56	-	191	7672	8924	9111
Quartzite	'000 tonnes	1404	-	1267	2672	3086	3926	2195	-	-	14706	-	23913	26584
Talc/soapstone steatite	'000 tonnes	22	-	8	30	-	-	-	-	70	8	-	78	108
Tin														
Ore	tonne	4404	1015	1713	7131	-	1690	-	168622	559914	29063345	-	29793572	29800703
Metal	tonne	925.75	189.76	16.92	1132.43	-	152.11	-	894.91	209.43	13097.75	-	14354.20	15486.63

Figures rounded off.

Table – 3: Details of Exploration Activities in Chhattisgarh, 2013-14

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq km)	No. of boreholes	Meterage		
GSI							
Coal							
Raigarh (Mahanadi Valley Coalfield)	Samarsingha block, Mand-Raigarh Coalfield	1:10000	6	7	2768.2	-	Regional exploration G-2 stage continued with the objectives to establish the development pattern and continuity of Barakar coal seams, already recorded in the Nawagaon block to the north, the Sithra- Kurekela area in the west, to assess the coal resource potentiality of the area and to generate baseline data for CBM exploration, A total of 2768.2 m was drilled in seven boreholes MRSS- 7 to 13 and 1068.2 m was geophysically logged. A total of twelve regional Barakar coal seams (I to X, XII & XIII in ascending order) and few local seams have been intersected between depths of 16.85 m and 624.77 m). Thickness of individual coal section varies from 0.59 m to 10.75 m. Seam IV is the thickest seam with cumulative thickness ranging from 5.50 to l0.75 m. The continuity of the coal seams have been established along dip direction towards south-west for about 5 km. Additional data was generated for the CBM exploration. Investigation is under progress.
-do-	Amlidhonda block, Mand-Raigarh Coalfield	1:10000	8	12	4610.7	-	Regional exploration G-2 stage continued with the objectives to establish the development pattern and continuity of Barakar coal seams, already recorded in the Gare block to the north, Kesarchuan-Lamdand block in the east, to assess the coal resource potentiality of the area and to generate baseline data for CBM exploration. A total of 4610.7 m was drilled in twelve boreholes, MRA- 5 to 16 and 1786.08 m was geophysically logged during the field season. Six regional Barakar coal seams (Seam III, IV, VI, VII, IX and X) varying in thickness from 1.3 m to 11.13 m and few local coal seams were intersected between 101.23 m and 425.04 m depths. Coal seams IX (2.85 m to 5.96 m) and combined coal seams VI+VII (4.91 m to 10.52 m) are important for their thickness and regional persistency. Continuity of the coal seams have been established for nearly 4 km along strike and 4 km in dip direction within the block. Additional data was generated for the CBM exploration. Investigation is under progress.

(Contd.)

Table - 3 (Contd.)

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq km)	No. of boreholes	Meterage		
Coal (Contd.)							
Surguja (Son Valley Coalfield)	Vijaynagar-Giddhi block, Tatapani-Ramkola Coalfield	1:10000	1	4	1262.45	-	Promotional exploration G-2 stage was continued with the objectives to establish the stratigraphy and structural disposition of Lower Gondwana sequences, continuity of Barakar Coal seams, coal resource potentiality of the area and to generate baseline data for CBM exploration. A total of ten regional Barakar coal seams (Seam II to VIII, XI to XIII) varying in cumulative thickness from 0.71 m to 17 m and few local coal seams were intersected between 18 m and 521.9 m depths. Seam No. III (cumulative thickness from 9.89 m to 17 m) and IV (10.79 m) are important for their thickness and regional persistency. Continuity of the coal seams has been established over 6.5 km along strike and 1 km in dip direction. The investigation was closed in October 2013.
-do-	Pipraul block, Tatapani-Ramkola Coalfield	1:10000	2	4	1565.2	-	Promotional exploration under G-2 stage has been initiated with the objectives to establish the stratigraphy and structural disposition of Lower Gondwana sequences, continuity of Barakar Coal seams, coal resource potentiality of the area and to generate baseline data for CBM exploration. Regional Barakar coal seams III Top (cumulative thickness 11.46 m), III Bottom (5.94 m), II (1.13 m), I (1.25 m) and two local coal seams with 1.65m and 1.49 m thickness were intersected between 383.43 m and 548.54 m depths in borehole TRP-2. Investigation is under progress.
Chromite							
Dhenkanal	Around Tulasipasi, Mahupal and Bhuasuni Parbat	1:2000	1.14	-	-	122	Reconnaissance stage (G-4) investigation was carried out for search of chromite bodies in the transition zone of Eastern Ghat Mobile Belt (EGMB) and Singhbhum Craton (SC) south of Sukinda ultramafic complex. The area mapped is occupied by rock types belonging to the transition zone lying between the Singbhum Craton and EGMB containing rocks of both cratonic and mobile belt affinity. The rock types exposed include mainly granite gneiss ± garnet, quartzite ± sillimanite and laterite with minor bands/lenses of charnockite, quartz-sericite schist, metabasalt, amphibolite, chlorite schist and phyllite with small lensoidal bodies of mafic-ultramafic rocks. Gabbro/dolerite dykes with NW- (Contd.)

Table - 3 (Contd.)

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq km)	No. of boreholes	Meterage		
							SE and NE-SW trends have intruded into all the rock types. The chromite mineralisation is orthomagmatic confined to the chromiferous dunite, chromitite and occasionally in gabbros. Maximum mineralisation has been seen within the chromiferous laterite with minimum Cr_2O_3 of 20-25% (V.E.).
Diamond							
Dhamtari Kanker & Durg	Raipur Kimberlite field	-	700	-	-	190	Reconnaissance stage investigation (G-4) was carried out to locate kimberlite clan rocks in the granitic basement along the high permeable zones characterized by mafic dykes. Regional reconnaissance was conducted in the priority zone within the mafic dyke swarms. The study area is predominantly covered with granitoids of Paleo-proterozoic age. NW-SE to NE-SW trending basic/mafic/ultramafic dykes were seen within the granitoids. The stream sediment samples were processed through HMS and binocular studies and the heavy minerals were separated. Heavy mineral separation of 40 samples was done. Heavy mineral study reveals presence of indicator minerals such as garnet, spinel and ilemenite. There are nearly 145 mafic dykes present in the study area. The mafic dykes were sampled for petrographic and petrochemical characterisation. The PCS samples were submitted for chemical analysis and further characterisation.
-do- Dhamtari and Kanker	Raipur Kimberlite field	-	700	-	-	210	Reconnaissance stage investigation (G-4) was carried out to search for kimberlite clan rocks in the granitic basement along the high-permeable zones characterized by mafic dykes. PGRS studies of IRS LISS III data for 700 km^2 were carried out. The area is predominantly covered by granite with scattered basic dykes and pink and grey aplitic vein and pegmatite vein. The stream sediment samples were processed through HMS and binocular studies and the heavy minerals were separated. Binocular study reveals presence of indicator minerals such as garnet and spinel.
-do- Gariaband	Mainpur Kimberlite field	-	700	-	-	193	Reconnaissance stage investigation (G-4) was carried out to search for kimberlite clan rocks in the granitic basement along the high-permeable zones characterised by mafic dykes. Binocular observation indicated the presence of garnet, ilmenite, spinel, zircon and other opaques in the stream sediment samples. PGRS studies of IRS LISS III data for 700 km^2 were carried out. The aeromagnetic map pertaining to the area has been received from AMSE wing, GSI. The high magnetic

(Contd.)

Table - 3 (Concld.)

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq km)	No. of boreholes	Meterage		
							anomalous zones in Chhura-Fingeshwar area have been selected for ground checks. The area is traversed by NW-SE, NE-SW and E-W trending lineaments with zones of intersecting lineaments. The area is predominantly covered by granite gneisses, amphibolites, sandstone, laterite, mafic dykes and quartz veins.
Iron ore							
Kabirdham (Kawardha)	Bhalapuri, Eklama-Chelikama block	1:2000	3.2	13	678.6	-	Prospecting stage (G-3) investigation was carried out for assessment of iron ore in Chilpi Group. This was a sponsored project with M/s Chhattisgarh Mineral Development Corporation initiated in 2012-13. The iron ore occurs at the contact of BHJQ and massive quartzite as NE-SW- and NNE-SSW-trending discontinuous band. Iron ore is massive, steel grey, mostly hematite along with goethite, specularite and rarely magnetite. Ore band is discontinuously exposed for a strike length of 9 km with average 8-11 m width. Drilling has proved occurrence of iron ore band up to 60 m vertical depth in Kesda and Bhalapuri blocks. Analytical results of surface (grab, channel) samples of iron ore show Fe content ranging from 58.98%-67.89% with an average of 64.94%, while analyses of core samples yield Fe content up to 68.24%.
State Directorate of Geology & Mining							
Coal							
Surguja	Saidu area	1:50000 1:4000	160 2.24	1	872.05	-	Total 65.57 m coal core and 35 rock sampling were carried out. Coal estimated at 105.20 lakh tonnes under 332 category.
-do-	Gotan-Birjupali area	1:50000 1:4000	125 0.5	-	-	-	Only survey work has been carried out along with 28 nos. of sampling.
Dolomite							
Janjgir-Champa	Pachri-Bhalwahi area	1:50000 1:4000	120 2.2	- -	1236.65 -	905 -	Total 300 lakh tonnes of dolomite estimated (332).
Granite							
Dantewara	Chingavaram Bhusaras area	1:50000	25	-	-	02	-
Kanker	Mudpar-Bundeli, Bhanbhera area	1:50000 1:4000	270 180	-	-	32	Resources estimated at 8,000 cu m in Mudpar-Bundeli area and 85.5 cu m (334) in Bhanbhera area.
Limestone							
Raipur	Kesla area	1:50000 1:4000	76 1.682	33 -	1065.4 -	836 -	Total 586.84 lakh tonnes of limestones has been estimated 562.58 lakh tonnes (333) and 24.26 lakh tonnes (332).
Limestone							
Raipur	Tekapar-Kalkasa area	1:50000 1:4000	93 1.45	- -	816.5 -	659 -	Total 122 and 46.40 lakh tonnes of limestone has been inferred under 333 and 332 categories, respectively.
Sukma	Birsatpal area	1:50000	40	-	-	3	-

Production

The value of mineral production in Chhattisgarh at ₹ 19,144 crore in 2013-14, increased by about 2% as compared to that in the previous year. The state is ranked sixth in the country and accounted for about 7% of the total value of mineral production. The important minerals produced in the state in 2013-14 were coal, bauxite, iron ore, tin (conc.), dolomite, limestone and quartzite which together accounted for about 98% of the total value of mineral production in the state.

Chhattisgarh was the sole producer of tin concentrate in the country and almost entire output (98%) of moulding sand was reported from the state. It was the leading producer of coal accounting for 23% and dolomite 37% in the total production of the country of respective minerals. It was also second largest producer of iron ore and fourth leading producer of quartzite with contribution of 20% and 6% to the national output of respective minerals. The state shared 8% of the total output of limestone during 2013-14**.** During the year under review, production of moulding sand increased manifolds and that of dolomite 32%, coal and iron ore 8% each and limestone by 4% whereas it declined for quartz 13%, quartzite 26%, tin concentrates 27% and bauxite 28% as compared to the previous year (Table-4).

The value of production of minor minerals was estimated at ₹ 439 crore for the year 2013-14.

The number of reporting mines in Chhattisgarh was 203 in 2013-14 as against 196 in the previous year.

The index of mineral production in Chhattisgarh (base 2004-05=100) was 168.6 in 2013-14 as compared to 156.5 in the previous year.

Table – 4 : Mineral Production in Chhattisgarh, 2011-12 to 2013-14 (P)
(Excluding Atomic Minerals)

(Value in ₹ '000)

Mineral	Unit	2011-12			2012-13			2013-14 (P)		
		No. of mines	Quantity	Value	No. of mines	Quantity	Value	No. of mines	Quantity	Value
All Minerals		**192**		**178181093**	**196**		**188400650**	**203**		**191440701**
Coal	'000t	61	113958	70740300	60	117830	90750700	61	127095	89275000
Bauxite	t	12	2391837	1444642	12	1818169	1117536	12	1314112	794350
Iron Ore	'000t	11	30457	98741549	11	27963	87739541	11	30156	92036747
Tin Conc.	kg	6	48765	26062	6	47774	24962	6	34851	22661
Clay (others)	t	-	720	86	-	-	-	-	-	-
Dolomite	t	38	1624834	363761	40	1970136	573523	40	2594991	897336
Fireclay	t	1	3423	856	1	2570	643	-	-	-
Graphite (r.o.m.)	t	1	-	-	-	-	-	1	1403	631
Kaolin	t	1	-	-	-	-	-	-	-	-
Limestone	'000t	51	20465	3477724	53	20172	3752473	57	21061	3980975
Quartz	t	3	731	144	5	17009	6804	6	14784	5843
Quartzite	t	4	32626	36368	6	42524	43514	6	31671	33420
Moulding Sand	t				1	2613	392	3	29321	3308
Talc/steatite/ soapstone	t	3	316	95	1	440	132	-	-	-
Minor Minerals@		-	-	3349506	-	-	4390430	-	-	4390430

Note: *The number of mines excludes minor minerals.*
@ Figures for earlier years have been repeated as estimates, wherever necessary, because of non-receipt of data.

Mineral-based Industry

The present status of each mineral-based industry is not readily available. However, the important large & medium-scale mineral-based industries in the organised sector in the State are furnished in Table - 5.

Table – 5 : Principal Mineral-based Industries in Chhattisgarh

Industry/plant	Capacity ('000 tpy)
Aluminium	
Bharat Aluminium Co. Ltd, Korba	200# (Alumina) 345* (Aluminium)
(*Korba plant - I capacity of 100,000 tonnes per year is non-operational; # Plants remained non operational during the year.)	
Cement	
ACC Ltd, Jamul, Distt. Durg	1580
Ambuja Cements Ltd, Bhatapara, Distt. Raipur	1000
CCI Ltd, Akaltara, Distt. Janjgir-Champa	400
CCI Ltd, Mandhar, Distt. Raipur	380
Century Cement, Baikunth, Distt. Raipur	2100
Jaypee Cement Ltd, Bhilai (G).	2200
Lafarge India Pvt. Ltd, Arasmeta, Distt. Janjgir-Champa	1600
Lafarge India Pvt. Ltd, Sonadih, Distt. Raipur	550
Ultra Tech Cement Ltd, Hirmi, Distt. Raipur	1900
Ultra Tech Cement Ltd, Rawan, Distt. Raipur	2500
Fertilizer	
BEC Fertilizers, Sirgitti, Distt. Bilaspur	135 (SSP)
Dharamsi Morarji Chemical Co. Ltd, Kumhari, Distt. Durg	183 (SSP & H_2SO_4)
Jairam Phosphate Ltd, Farahad, Distt. Rajnandgaon	66 (SSP) 49.5 (H_2SO_4)
Iron & Steel	
Bhilai Steel Plant, Bhilai	8350 (Sinters) 4700 (Pig iron) 3153 (Saleable steel) 3925(crude/liquid steel) 30 (Refractory bricks)
Jindal Steel & Power Ltd, Raigarh	2300 (Sinters) 1670 (Hot metal) 1370 (Sponge iron) 3000(Crude/liquid steel)

(Contd.)

Table - 5 (Contd.)

Industry/plant	Capacity ('000 tpy)
Jayaswal NECO Industries Ltd, Siltara, Distt. Raipur	750 (Pig iron) 255 (Sponge iron) 640 (Sinter) 400 (Steel) 300 (Pellets)
Sarda Energy & Minerals Ltd, (formerly Raipur Alloys & Steel Ltd) Siltara, Distt. Raipur	600 (Pellets) 210 (Sponge iron) 240 (Finished steel)
Shri Bajrang Power & Ispat Ltd, Urla, Distt. Raipur	210 (Sponge iron) 130 (Steel)
MSP Steel & Power Ltd, Raigarh.	900 (pellets)
Sponge Iron	
A.P.I. Ispat & Power Tech. Pvt. Ltd, Siltara Billets, Raipur	105
Alliance Integrated Metallics Ltd, Bemta, Distt. Raipur	500
Anjani Steel Ltd, Ujalpur, Distt. Raigarh	36
Arti Sponge & Power Ltd, Siltara, Dist. Raipur	45
Ambika Ispat (I) Pvt Ltd, Tarainal, Distt. Raigarh	30
Baldev Alloys Pvt. Ltd, Siltara, Raipur	30
Bhagavati Power & Steel Pvt Ltd, Siltara, Distt. Raipur	60
B.S. Sponge Pvt Ltd, Taraimal, Raigarh	30
Crest Steel & Power Pvt. Ltd.	115
Devi Iron & Power Pvt Ltd, Tandira, Distt. Raipur	30
Drolia Electro Steel Pvt Ltd, Siltara, Raipur	66
Euro Pratik Ispat Pvt Ltd, Charoda, Distt. Raipur	30
Gravity Treksim Pvt Ltd, Siltara, Distt. Raipur	30
Godavari Ispat & Power Ltd, Siltara, Distt. Raipur	495
Gopal Sponge & Power Pvt Ltd, Siltara, Distt. Raipur	30
Gitanjali Ispat & Power Pvt Ltd, Sirgititi, Distt. Bilaspur	30
GR Sponge & Power Ltd, Siltara, Distt. Raipur	37
Hare Krishna Sponge Pvt Ltd, Siltara, Distt. Raipur	30
Jai Shree Balaji Steel Pvt Ltd (HEG Ltd), Borai, Distt. Durg	120 (Sponge iron) 100 (Bxillets)
Hi-Tech Power & Steel Ltd, Parsada, Distt. Raipur	30

(Contd.)

Table - 5 (Contd.)

Industry/plant	Capacity ('000 tpy)
Ind Synergy Ltd, Kotmar, Distt. Raigarh	300
Indian Ispat & Power, Siltara, Distt. Raipur	30
Kalindi Ispat Pvt. Ltd, Belpan, Distt. Bilaspur	60
Khetan Sponge & Infrastructure Pvt. Ltd, Sarora, Distt. Raipur	30
Maa Kali Alloys (Ind.) Pvt Ltd, Pali, Distt. Raigarh	30
Mangal Sponge & Steel Pvt Ltd, Bilha, Bilaspur	30
Mangala Ispat Pvt Ltd, Natvarpur, Distt. Raigarh	30
Millennium High-Tech Industries Ltd, Parsada, Distt. Raipur	30
MSP Steel & Power Ltd, Raigarh	192
Monnet Ispat & Energy Ltd, Hasaud, Raipur	300
Monnet Ispat & Energy Ltd, Naharpalli, Raipur	500
NR Sponge Pvt. Ltd, Raipur	60
Nalwa Sponge Iron Ltd, Taraimal, Raigarh	198
Nakoda Ispat Ltd, Siltara, Raipur	66
Navdurga Fuse Pvt Ltd, Raigarh	60
Nova Iron & Steel Ltd, Dagori, Bilaspur	150
Nutan Ispat & Power Ltd, Jaroda, Raipur	30
PD Industries Pvt Ltd, Siltara, Raipur	30
Prakash Industries Ltd, Hathenewra, Janjgir-Champa.	450
Shree Radhe Industries Ltd, Silpahari, Bilaspur	60
Raigarh Ispat & Power Ltd, Delari, Distt. Raigarh	30
Rameswaram Steel & Power Ltd, Gharghoda, Distt. Raigarh	30
Salasar Sponge & Power Pvt Ltd, Gerwani, Gerwani, Distt. Raigarh	30
Sree Nakoda Ispat Ltd, Siltara, Distt. Raipur	66
Topworth Steel Pvt Ltd, Rosmada, Distt. Durg	60
Shakambri Steel & Power Pvt Ltd, Raigarh	30
Shakun Sponge Iron Pvt Ltd, Shirgitti, Distt. Bilaspur	30
Shivalaya Ispat & Power Pvt Ltd, Guma, Distt. Raipur	30
Sidhi Vinayak Sponge Iron Pvt Ltd, Raigarh	30

(Contd.)

Table - 5 (Concld.)

Industry/plant	Capacity ('000 tpy)
S.K. Sarawagi & Co. Pvt Ltd, Siltara, Distt. Raipur	60
SKS Ispat & Power Ltd, Siltara, Distt. Raipur	270
Shivshakti Steel Pvt. Ltd, Chakradharpur, Distt. Raigarh	100
Shri Sita Ispat & Power Pvt. Ltd, Borjhara, Distt. Raipur	30
Shree Shyam Sponge & Power Ltd, Bachera, Distt. Raipur	30
Singhal Enterprises Pvt Ltd, Taraimal, Distt. Raigarh	156
Sunil Ispat & Power Ltd, IGC Siltara, Distt. Raipur	115
Sunil Sponge Iron Ltd, Chiraipani, Distt. Raigarh	105
Trimula Sponge Iron Pvt Ltd, Siltara, Raipur	30
Vandana Global Ltd, Siltara, Distt.Raipur	210
Vasvani Industries Ltd, Siltara, Distt. Raipur	30
Vidhyan Minerals India Pvt. Ltd, Bilaspur	30
Ferro Alloys	
Alok Ferro Alloys Ltd, Urla, Raipur	18
Deepak Ferro Alloys Ltd, Urla, Distt. Raipur	5
Indsil Energy & Electro Chemical Ltd, Urla, Distt. Raipur	19.2
Hira Ferro alloys Ltd, Urla, Dist. Raipur	61.5
Jindal Steel & Power Ltd, Kharsia, Distt. Raigarh	36
Sarda Energy & Minerals Ltd, (merged Chhatisgarh Electricity Co. Ltd) Siltara, Distt. Raipur	45 MVA
Monnet Ispat Ltd, Hasaud, Raipur	80
Nav-chrome Ltd, Urla, Distt. Raipur	50
Standard Chrome Ltd, Barmuda, Distt. Raigarh	15
Tirumala Balaji Alloys Pvt Ltd, Raigarh	21
Refractory	
Bharat Refractory Ltd, Bhilai, Distt. Durg (Bhilai Refractory Plant)	60
Vishva Vishal Engineering Ltd, Bhilai, Distt. Durg	8.2
Silicon Carbide Crucible	
M.P. Carbon (Pvt) Ltd, Raipur	NA