Vale S.A.
Form 6-K
February 25, 2011

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United States
Securities and Exchange Commission
Washington, D.C. 20549
FORM 6-K
Report of Foreign Private Issuer
Pursuant to Rule 13a-16 or 15d-16
of the
Securities Exchange Act of 1934
For the month of
February 2011
Vale S.A.
Avenida Graça Aranha, No. 26
20030-900 Rio de Janeiro, RJ, Brazil
(Address of principal executive office)

(Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.)

(Check One) Form 20-F þ Form 40-F o

(Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1))

(Check One) Yes o No þ

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(Check One) Yes o No þ

(Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.)

(Check One) Yes o No þ

(If Yes is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b). 82- .)

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Production Report

Vale 2010 Production Report

A YEAR OF STRONG RECOVERY

Rio de Janeiro, February 24, 2011 Vale S.A. (Vale) operations had an outstanding performance in 2010. After facing the challenges stemming from the global recession of 2008/2009, one of the deepest in modern economic history, there was a strong recovery of the output of most of our products.

The production of iron ore of 308 Mt[1] in 2010 achieved an all-time high figure. It was 29.4% above 2009 and 1.5% higher than the previous record level of 303 Mt attained in 2007, a year of fast global demand growth and full capacity operation. Carajás, which has the best iron ore deposits in the world, produced 101 Mt in this year, establishing a new record mark. At the same time, pellet production was 49 Mt, another all-time figure, surpassing the previous record of 45 Mt of 2007. In addition, new records were reached in the production of bauxite, at 14 Mt, and coal, 6.9 Mt.

The bulk of our Canadian nickel operations, encompassing the Sudbury and Voisey Bay sites, were negatively affected by a long strike, which started in 3Q09. Despite the labor interruption, we managed to keep the operations running, albeit at low levels of capacity utilization. With the end of the strike in Sudbury, the output of refined nickel began to increase in 3Q10 and in the last quarter of the year climbed to an annualized rate of 260,000 metric tons, an almost normal level of activity, even higher than the production number for 2007, of 248,000 metric tons.

The move towards normalization of our base metals production and its minor and precious metals by-products is taking place against a backdrop of high and rising prices, contributing to a significant enhancement of our financial performance.

In the first weeks of this year there were heavy rains and flooding in some parts of Brazil where we have 100% of our iron ore operations and in the state of Queensland, Australia where our central Australian office, in Brisbane, and some of our coal mines are located. Although the rainfall was far heavier than the seasonal standard, the preemptive actions taken by our bulk materials operations were able to minimize output losses.

In the case of iron ore, so far losses have been minimal, estimated to reach only 600,000 metric tons (200,000 in the Southern System and 400,000 in the Southeastern System), which are in accordance with the seasonality pattern for the first quarter of each year and represent only a minimal portion of the total production target for 2011, 311 Mt[2], thus being easily recoverable over the year. On the other hand, the estimated losses for our coal production in Queensland, at 500,000 metric tons, are relevant given the still small scale of Vale s Australian operations.

Given the strong global demand for minerals and metals and the positive expectations for the near term, the excellence of our current operations and the upcoming capacity additions from soon to be delivered new projects, as well as those which are already being commissioned and ramped up, we expect the continuation of the outstanding operational performance and a significant contribution to shareholder value creation.

Annual production

000 metric tons	**2008**	**2009**	**2010**
Iron ore[a]	301,696	237,953	307,795
Pellets[a]	44,763	23,856	48,993
Coal	4,094	5,420	6,893
Nickel	275	187	179
Copper	312	198	207
Bauxite	11,628	12,461	14,332
Alumina	3,431	5,910	5,805
Aluminum	542	459	447
Potash	607	717	662

[a] Including Samarco s attributable production.

[1] Mt = million metric tons

Kt = thousand metric tons

mt = metric tons

[2] Without Samarco s attributable production.

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BULK MATERIALS

Iron ore

000 metric tons	4Q09	3Q10	4Q10	2009	2010	% Change 4Q10/3Q10	% Change 4Q10/4Q09	% Change 2010/2009
IRON ORE	**63,443**	**82,614**	**80,262**	**237,953**	**307,795**	**-2.8%**	**26.5%**	**29.4%**
Southeastern System	24,554	31,530	30,028	88,503	116,913	-4.8%	22.3%	32.1%
Itabira	8,009	10,621	10,036	31,136	38,704	-5.5%	25.3%	24.3%
Mariana	7,921	9,697	8,933	28,922	36,635	-7.9%	12.8%	26.7%
Minas Centrais	8,624	11,212	11,058	28,444	41,574	-1.4%	28.2%	46.2%
Midwestern System	683	1,088	1,268	956	4,208	16.5%	85.6%	340.2%
Corumbá	423	749	876	423	2,829	16.9%	107.0%	568.7%
Urucum	260	339	392	533	1,379	15.5%	50.8%	158.8%
Southern System	14,599	20,258	18,214	55,242	74,703	-10.1%	24.8%	35.2%
Minas Itabiritos	5,241	8,275	7,470	18,124	30,050	-9.7%	42.5%	65.8%
Vargem Grande	5,234	5,938	5,127	20,578	22,065	-13.7%	-2.0%	7.2%
Paraopeba	4,124	6,044	5,617	16,539	22,587	-7.1%	36.2%	36.6%
Northern System	20,940	26,997	28,007	84,638	101,171	3.7%	33.7%	19.5%
Carajás	20,940	26,997	28,007	84,638	101,171	3.7%	33.7%	19.5%
Samarco[1]	2,667	2,741	2,746	8,614	10,800	0.2%	3.0%	25.4%

[1] Vale s attributable production capacity of 50%.

Vale s iron ore production reached a new record in 2010, namely 307.8 Mt, with a year-over-year increase of 29.4%, thus surpassing the 2007 record of 303.2 Mt.

Production was 80.3 Mt in 4Q10, 2.8% below 3Q10, which in light of seasonality is a very slight decrease (4Q of each year tends to have a lower production than 3Q due to the beginning of the rainy season in the last months of the year, while the third quarter is the seasonally strongest quarter of the year for iron ore production).

Following its recovery in 3Q10, iron ore production in Carajás reached 28 Mt in 4Q10, expanding by 3.7% on a quarter-on-quarter basis and 33.7% year-on-year. Given its outstanding performance in the second half of the year, the 2010 output level of 101.2 Mt surpassed the previous record for Carajás, achieved in 2008, at 96.5 Mt.

The Southeastern System, which encompasses the Itabira, Mariana and Minas Centrais mining sites, reached a production of 30.0 Mt, decreasing 4.8% over 3Q10 due to seasonal factors and rising 22.3% over 4Q09.

The Southern System produced 18.2 Mt in 4Q10 against 20.2Mt in 3Q10, but increased 24.8% on a year-on-year basis.

Our iron ore mines, Urucum and Corumbá, located in state of Mato Grosso do Sul, Brazil, near the border with Bolivia and Paraguay, were aggregated under the newly created Midwestern System. It is the smallest of our Systems, with a production of 1.3 Mt in 4Q10 and a quarter-on-quarter increase of 16.5% and 85.6% year-on-year.

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Pellets

000 metric tons	4Q09	3Q10	4Q10	2009	2010	% Change 4Q10/3Q10	% Change 4Q10/4Q09	% Change 2010/2009
PELLETS	**8,750**	**13,638**	**12,210**	**23,856**	**48,993**	**-10.5%**	**39.5%**	**105.4%**
Tubarão I and II	783	1,434	1,189	3,942	5,435	-17.1%	51.9%	37.9%
Fábrica	0	1,058	1,016	235	3,809	-4.0%	n.m.	1521.6%
São Luís	0	1,656	1,154	3	4,545	-30.3%	n.m.	177004.6%
Vargem Grande	1,125	1,425	1,061	2,159	5,174	-25.5%	-5.7%	139.6%
Nibrasco	2,150	2,395	2,493	5,791	8,958	4.1%	16.0%	54.7%
Kobrasco	764	1,163	1,201	1,653	4,748	3.3%	57.2%	187.3%
Hispanobras[1]	452	560	493	577	1,948	-11.9%	9.1%	237.7%
Itabrasco	815	1,049	769	1,471	3,621	-26.7%	-5.7%	146.1%
Samarco[2]	2,662	2,897	2,833	8,025	10,754	-2.2%	6.5%	34.0%

[1] Vale s attributable production capacity of 50.89%.

[2] Vale s attributable production capacity of 50%.

In 4Q10, pellet production was 12.2 Mt, 10.5% lower than the previous quarter but 39.5% higher than 4Q09. The total volume produced in 2010 reached 49 Mt a new all-time high, 9.3% higher than the 44.8 Mt record achieved in 2007.

There were some scheduled maintenance stoppages in 4Q10, which affected negatively output performance. The plants were under maintenance in October, São Luis in November, and Tubarão I and II in December while some Hispanobrás equipment was under maintenance during November.

Vargem Grande also had some operational issues, arising from the supply and quality of feed received.

The three pellet plants of the 50%-owned Samarco JV, which have a nominal capacity of 21.0 Mtpy, were operating at full capacity. Our attributable production was 2,833 Mt in 4Q10, 2.2% lower than 3Q10.

The Oman operations, in the industrial site of Sohar, Oman, are coming on stream. It has two pellets plants, each with a capacity to produce 4.5 Mtpy, thus adding 9.0 Mtpy to our production capacity. The two plants will produce direct reduction pellets.

Oman s plant 1 is under commissioning and furnace heating, and is expected to start up production in March. Plant 2 is being assembled and is expected to reach the ramp up stage by the end of the first half of this year.

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Manganese ore and ferroalloys

000 metric tons	4Q09	3Q10	4Q10	2009	2010	% Change 4Q10/3Q10	% Change 4Q10/4Q09	% Change 2010/2009
MANGANESE ORE	**545**	**472**	**477**	**1,657**	**1,841**	**1.0%**	**-12.5%**	**11.1%**
Azul	513	372	391	1,382	1,550	5.1%	-23.8%	12.1%
Urucum	32	55	41	169	184	-25.0%	27.2%	9.0%
Other mines	0	46	46	105	106	-0.4%	n.m.	0.8%
FERROALLOYS	**88**	**112**	**116**	**223**	**451**	**3.8%**	**32.1%**	**102.5%**
Brazil	34	50	55	99	207	9.0%	62.3%	109.2%
Dunkerque	35	35	36	45	138	1.1%	2.6%	209.5%
Mo I Rana	19	26	26	79	106	-2.5%	32.8%	33.6%

In 4Q10, manganese ore production was slightly higher than the previous quarter, coming to 477,000 t against 472,000 t in 3Q10. The annual output increased 11.1% when compared to 2009, reaching 1.8 Mt.

The production of Azul our largest manganese mine increased 5.1% on a quarter-on-quarter basis, reaching 391,000t. The use of new equipment has contributed to improve mining performance. The total production in 2010 was 12.1% above 2009.

Ferroalloy quarterly production was comprised of 51,000t of ferrosilicon manganese alloys (FeSiMn), 60,000t of high-carbon manganese alloys (FeMnHc) and 5,000 t of medium-carbon manganese alloys (FeMnMC). The total output was slightly higher than previous quarter, increasing by 3.8%.

Production for 2010 was 451,000t, more than doubling relatively to 2009, but still lower than the previous peak of 542,000t reached in 2007.

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Coal

000 metric tons	4Q09	3Q10	4Q10	2009	2010	% Change 4Q10/3Q10	% Change 4Q10/4Q09	% Change 2010/2009
METALLURGICAL COAL	**659**	**814**	**770**	**2,527**	**3,057**	**-5.4%**	**16.9%**	**21.0%**
Integra Coal	198	296	279	1,184	1,151	-5.7%	41.0%	-3.1%
Broadlea	25	0	0	252	101	n.m.	n.m.	-59.8%
Carborough Downs	245	289	367	604	1,216	27.0%	50.0%	101.3%
Others	191	229	124	487	590	-45.9%	-35.2%	21.1%
THERMAL COAL	**607**	**1,057**	**976**	**2,892**	**3,832**	**-7.6%**	**60.7%**	**32.5%**
El Hatillo	368	830	830	1,143	2,991	0.0%	125.7%	161.8%
Integra Coal	103	114	74	702	305	-35.1%	-28.0%	-55.8%
Broadlea	27	0	0	497	165	n.m.	n.m.	-66.7%
Others	110	113	72	551	371	-36.3%	-34.3%	-32.7%

Despite the adverse weather conditions in Australia and some operational issues, 2010 was our best year for coal operations, with all-time high levels of production for both metallurgical and thermal coal, 3.057 Mt and 3.832 Mt, respectively, totaling 6.9 Mt.

In 4Q10 Vale s coal production reached 1.75 Mt, which was comprised of 770,000 t of metallurgical coal and 976,000 t of thermal coal.

Production of metallurgical and thermal coal at Integra Coal, in New South Wales, was 279,000 t and 74,000t, respectively, in 4Q10. Both metallurgical and thermal coal output were lower than in 3Q10.

Production at Carborough Downs, in Queensland, was 367,000 t in 4Q10, versus 289,000 t in 3Q10. Although Carborough Downs completed a long wall move in 4Q10, the increase in its yield on this quarter contributed to a higher output and its best ever quarterly performance.

Heavy and consistent rainfall during the fourth quarter resulted in 42 days of lost production at all other mines in the state of Queensland.

The thermal coal mine of El Hatillo, an open pit coal mine in Colombia, is ramping up and was also affected by bad weather conditions in the 4Q10 producing 830,000 t in 4Q10, in line with 3Q10.

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BASE METALS

Nickel

000 metric tons	4Q09	3Q10	4Q10	2009	2010	% Change 4Q10/3Q10	% Change 4Q10/4Q09	% Change 2010/2009
NICKEL	**30**	**44**	**65**	**187**	**179**	**45.7%**	**117.8%**	**-4.2%**
Sudbury	2	6	8	43	22	35.7%	450.1%	-48.5%
Thompson	10	5	8	29	30	75.2%	-14.4%	3.5%
Voisey Bay	4	10	25	40	42	160.7%	571.6%	6.6%
Sorowako	15	22	20	69	78	-9.7%	34.7%	13.9%
Others*	0	2	3	6	6	47.5%	n.m.	0.0%

* External feed purchased from third parties and processed into finished nickel in our operations

Total finished nickel production was 65,000 t in 4Q10, 45.7% up on a quarter-on-quarter basis, being our highest quarterly output since 1Q09. Most of this increase about 15,000 t was due to the significant contribution of Voisey Bay feed to refined nickel.

Voisey Bay mining and processing has been operating at full capacity for some time focusing on high grade feed to supply the Clydach and Thompson refineries. At the same time, Sudbury mining was more focused on high grade copper and was operating at levels much below capacity. Mining was ramped up only after the end of the strike and given the relatively long production cycle, from mined nickel to refined nickel, the fourth quarter still saw the numbers for refined nickel sourced from Sudbury at low levels, increasing to only 8,000 t from 6,000 t in 3Q10.

During 1H11, one of the two furnaces of our Copper Cliff smelter in Sudbury will remain shutdown for a minimum of 16 weeks, entailing an estimated output loss of 15,000 metric tons of finished nickel.

Production at Thompson in 4Q10 was 8,300 t, 75.2% up from the previous quarter as the operations had a one-month annual maintenance shutdown in 3Q10.

Finished nickel production sourced from Sorowako, Indonesia, was 19,600 t, down 9.7% from 3Q10 due to a maintenance shutdown in October at the Matsuzaka refinery in Japan. It was up 34.7% on a year-on-year basis as at 4Q09 the Sorowako matte was being diverted to the Clydach refinery to meet demand requirements which contributed to lengthen the production cycle at that time.

The commissioning of the Onça Puma ferronickel project is completed, with the production of the first metal was in the last week of January. The operation has a nominal production capacity of 58,000 t of nickel in ferronickel.

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Copper

000 metric tons	4Q09	3Q10	4Q10	2009	2010	% Change 4Q10/3Q10	% Change 4Q10/4Q09	% Change 2010/2009
COPPER	**32**	**58**	**76**	**198**	**207**	**30.3%**	**132.8%**	**4.4%**
Sossego	28	32	30	117	117	-6.0%	8.8%	-0.1%
Sudbury	2	14	14	42	34	-2.2%	477.6%	-19.9%
Thompson	0	0	1	1	1	n.m.	n.m.	0.0%
Voisey s Bay	0	11	16	24	33	52.7%	n.m.	36.1%
Others	2	1	15	14	22	925.6%	668.3%	61.8%

Vale s copper production was 76,000t in 4Q10, an increase of 30.3% on a quarter-on-quarter basis.

Production of copper in concentrates from the Sossego mine at Carajás was 6% lower than in the previous quarter due to the smaller volumes of feed received by the plant during this quarter.

Our Canadian operations delivered 46,000 t in 4Q10, 20,000t higher than 3Q10. In addition to the better performance of Voisey s Bay, there was a contribution of copper ores purchased from third parties in previous quarters and processed into copper concentrates and anodes in Sudbury in 4Q10. These purchases allowed us to increase copper shipments in an environment of rising prices.

Nickel by-products

	4Q09	3Q10	4Q10	2009	2010	% Change 4Q10/3Q10	% Change 4Q10/4Q09	% Change 2010/2009
COBALT (metric tons)	**133**	**133**	**624**	**1,575**	**1,066**	**367.9%**	**368.0%**	**-32.3%**
Sudbury	0	39	258	359	302	563.4%	n.m.	-15.8%
Thompson	70	34	30	181	189	-11.2%	-57.3%	4.3%
Voisey Bay	63	60	288	971	524	378.7%	358.6%	-46.1%
Others	0	1	48	64	51	n.m.	n.m.	-20.2%
PLATINUM (000 oz troy)	**2**	**3**	**26**	**103**	**35**	**756.7%**	**1446.6%**	**-65.8%**
Sudbury	2	3	26	103	35	756.7%	1446.6%	-65.8%
PALLADIUM (000 oz troy)								