



स्टील अथॉरिटी ऑफ इण्डिया लिमिटेड
STEEL AUTHORITY OF INDIA LIMITED

इस्को इस्पात संयंत्र
IISCO STEEL PLANT

परियोजना विभाग, बर्नपुर, (प. ब.), पिन: ७१३३२५
PROJECTS DEPT., BURNPUR, (W.B), PIN: 713325

Ref. No.: PROJECT/EXPB-B/USM-050/671

Date: 20.05.2022

PERFORMANCE GUARANTEE CERTIFICATE

To

SMS Group GmbH, Germany
M/s MUKAND Ltd
M/s Primetals Technologies India) Pvt. Ltd
M/s Technofab Mfg. Ltd

Contract Agreement No.: PEDD/EXPB-B/2007/USM/037 dated 15.11.2007

Name of the facilities: - Universal Section Mill (Pkg.14)

Dear Sirs,


Pursuant to **Clause 27** (Performance Guarantee Tests of the facilities) of the General conditions of the contract entered into between yourselves and the Employer dated 15.11.2007 relating to the **Universal Section Mill**, we hereby notify you that the Performance Guarantee Tests of the following parts of the facilities were carried out and Performance Guarantee Parameters were satisfactorily attained on the date specified below, and that, in accordance with the terms of the Contract.

1. Description of the facilities or part thereof: **Universal Section Mill**
2. Date of completion : **26.04.2022**
3. Performance Guarantee Parameters :

Sl .No.	Description	Guaranteed	Achieved
1	IPE 300(as per DIN 1025), HEB 300 (as per DIN 1025), ISMC 300, ISMC 250, Equal Angle 150x12(as per DIN 1028) i) Product Output Rate ii) Yield iii) Physical & Metallurgical Properties iv) Product Tolerance Roll Changing Time, stand Change Time & Guide Change Time, as applicable i) BD Mil roll changing time ii) Universal mill Roll changing time iii) Roller straightner roll changing time iv) Saw blade changing time of cold saw	As per Contract	As per Contract

This letter does not relieve you of your obligation to complete the execution of the Facilities in accordance with the Contract nor of your obligations during the Defects Liability Period.

Yours faithfully,
For IISCO STEEL PLANT


(N. K. Sethy)
General Manager (Project)



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परियोजना विभाग, बर्नपुर, (प. ब.), पिन: ७१३३२५
PROJECTS DEPT., BURNPUR, (W.B), PIN: 713325

Ref No: PROJECT/EXPN -B/USM/ 1982

Dated: 05-07-2017

To

Commissioning Certificate

M/s SMS GmbH, Germany
M/s Mukand Ltd
M/s Primetal Technologies (India) Pvt. Ltd
M/s Technofab Mfg. Ltd.

**Contract Agreement No: PEDD/EXPN-B/2007/USM/037 Dated 15-11-2007
Expansion of Burnpur works - Universal Section Mill**

Dear Sirs,

Pursuant to clause 25 (Commissioning of the Facilities) of the General Condition of the contract entered between yourselves and the Employer dated 15.11.2007 relating to the Design, Engineering, Manufacture, Supply, Erection and Commissioning of Universal Section Mill along with associated ancillary and auxiliary equipment and facilities, we hereby notify you that the following part(s) of the Facilities were commissioned on the date specified below and that, in accordance with the terms of the Contract, the Employer hereby takes over the said part(s) of the Facilities, together with the responsibility for care and custody and the risk of loss thereof but without prejudice to any of the rights of the Employer, on the date mentioned below.

1. **Description of the Facilities of part thereof:** 600,000 t/ annum Universal Section Mill along with Water Treatment Plant, Chiller Plant, Roll Shop and associated ancillary and auxiliary equipment and facilities.
2. **Date of Completion:** 23.05.2017

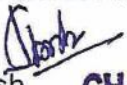
However, you are required to complete the outstanding items listed in the attachment (**Annexure A-1, A-2 & A-3**) hereto as soon as possible.

This letter does not relieve you of your obligation to complete the execution of the Facilities in accordance with the Contract nor of your obligation during the Defects Liability period..

Yours faithfully

For SAIL- IISCO Steel Plant

Chandan Ghosh
Project Manager


CHANDAN GHOSH
DGM (PROJECT)
SAIL-ISP, BURNPUR

- Encl : 1. Commissioning Test Report
2. Outstanding items (Annexure 1,2 & 3)

**COMMISSIONING TEST REPORT
UNIVERSAL SECTION MILL (PACKAGE-14)**

Input Material – Beam Blank 2
Initial Length of BB 2 – 9.8 meters approx.
Section Rolled – IPE 300
Weight per meter of finished product – 42.2 kg/m
Duration - 7.00 a.m – 3.00 p.m
Date : 20 - 05 - 2017

Sl No.	Time Duration	Nos. of Beam Blanks required to be rolled per hour to achieve 66%	Actual Nos. of Beam Blanks rolled	Length and weight of finished product		Delays (min)		Reasons for Delays		Remarks
				Length of finished product (m)	Weight of finished product (t)	Attributable to Employer	Attributable to contractor	Employer	Contractor	
1.	7.00 a.m - 8.00 a.m	16	15	2207.64	93.16	4	0	Manual discharge from furnace	-	Details of Length of weight of finished product attached as ANNEXURE 1
2.	8.00 a.m - 9.00 a.m		14	2071.28	87.40	8	0	Sample checking	-	
3.	9.00 a.m -10.00 a.m		7	1037.69	43.79	36	2	Space constraint in product storage bay near loading grid 1	Grip type tilter functioning slowly	
4.	10.00 a.m-11.00a.m		14	2073.80	87.51	8	0	Sample checking	-	
5.	11.00 a.m -12.00 n		0	0	0	60	0	Delay in furnace charging	-	
6.	12.00 n -1.00 p.m		0	0	0	60	0	Delay in furnace charging	-	
7.	1.00 p.m – 2.00 p.m		10	1484.76	62.65	24	3	Slow evacuation due to accumulation of short pieces near loading grid 2	Length measurement error, Manual cutting in hot saw	
8.	2.00 p.m – 3.00 p.m		11	1628.76	68.73	20				
Total – 8 hours			71		Total – 443.24	Total - 220 min = 3.67 hrs	Total = 5.0 min = 0.08 hrs			

Remarks : Rated hourly productivity as per contract – 150 t/hr
66% of the rated hourly productivity – 99 t/hr
Finished material (IPE 300) produced over a period of one shift – 443.24 tons
Duration of actual rolling after deducting the delays attributable to ISP – [8.00 – (3.67-0.08=3.59)] hrs = 4.41 hrs
Hourly productivity achieved = 443.24 t / 4.41 hr = 100.50 ton/hr
100.50 ton/hr (67.00 % rated hourly productivity) achieved against 99 ton/hr (66 % rated hourly productivity) as per contract during the above commissioning test.
Hence the commissioning test is successfully conducted.

ISP
M. Bhandari (ISP)

A.P. (ISP)

Sandesh Kumar
T. S. Chatterjee

(B. S. Sidhu)
(S. R. Das)

MECON
(B. S. Sidhu)
(ANIL KUMAR)

CONTRACTOR
SMS group 2005 2017
(Technician)
MUKAND

Annexure.1

SI No.	Time	Length of Finished material (L)	Weight of Finished material (42.2 X L)	Weight in Tonnes
1	07:00 AM to 08:00 AM	144.2	6085.24	6.08524
2		147.35	6218.17	6.21817
3		146.3	6173.86	6.17386
4		149.45	6306.79	6.30679
5		147.02	6204.244	6.204244
6		148.32	6259.104	6.259104
7		148.34	6259.948	6.259948
8		146.91	6199.602	6.199502
9		147.96	6243.912	6.243912
10		147.67	6231.674	6.231674
11		146.11	6165.842	6.165842
12		146.24	6171.328	6.171328
13		148.6	6270.92	6.27092
14		148.96	6286.112	6.286112
15		144.21	6085.662	6.085662
		2207.64	93162.408	93.1600
SI No.	Time	Finished material (L)	Weight of Finished material (42.2 X L)	Weight in Tonnes
1	09:00 AM to 10:00 AM	148.94	6285.268	6.285268
2		153.12	6461.664	6.461664
3		147.23	6213.106	6.213106
4		148.06	6248.132	6.248132
5		146.92	6200.024	6.200024
6		146.5	6182.3	6.1823
7		146.92	6200.024	6.200024
		1037.69	43790.518	43.79
SI No.	Time	Length of Finished material (L)	Weight of Finished material (42.2 X L)	Weight in Tonnes
1	01:00 PM to 02:00 PM	148.98	6286.956	6.286956
2		148.22	6254.884	6.254884
3		149.33	6301.726	6.301726
4		147.15	6209.73	6.20973
5		150.91	6368.402	6.368402
6		148.34	6259.948	6.259948
7		147.12	6208.464	6.208464
8		147.04	6205.088	6.205088
9		149.03	6289.066	6.289066
10		148.64	6272.608	6.272608
		1484.76	62656.872	62.65

SI No.	Time	Length of Finished material (L)	Weight of Finished material (42.2 X L)	Weight in Tonnes
1	08:00 AM to 09:00 AM	146.02	6162.044	6.162044
2		148.81	6279.782	6.279782
3		149.06	6290.332	6.290332
4		148.08	6248.976	6.248976
5		149.35	6302.57	6.30257
6		149.6	6313.12	6.31312
7		146.16	6167.952	6.167952
8		148.31	6258.682	6.258682
9		144.5	6097.9	6.0979
10		149.3	6300.46	6.30046
11		147.8	6237.16	6.23716
12		148.32	6259.104	6.259104
13		147.8	6237.16	6.23716
14		148.17	6252.774	6.252774
		2071.28	87408.016	87.400
SI No.	Time	Length of Finished material (L)	Weight of Finished material (42.2 X L)	Weight in Tonnes
1	10:00 AM to 11:00 AM	148.28	6257.416	6.257416
2		149.32	6301.304	6.301304
3		147.59	6228.298	6.228298
4		148.42	6263.324	6.263324
5		148.56	6269.232	6.269232
6		148.52	6267.544	6.267544
7		146.94	6200.868	6.200868
8		147.89	6240.958	6.240958
9		148.19	6253.618	6.253618
10		148.1	6249.82	6.24982
11		146.19	6169.218	6.169218
12		148.76	6277.672	6.277672
13		150.11	6334.642	6.334642
14		146.93	6200.446	6.200446
		2073.8	87514.36	87.51
SI No.	Time	Length of Finished material (L)	Weight of Finished material (42.2 X L)	Weight in Tonnes
1	02:00 PM to 03:00 PM	148.83	6280.626	6.280626
2		147.67	6231.674	6.231674
3		149.69	6316.918	6.316918
4		148.66	6273.452	6.273452
5		148.8	6279.36	6.27936
6		149.34	6302.148	6.302148
7		148.92	6284.424	6.284424
8		147.8	6237.16	6.23716
9		145.37	6134.614	6.134614
10		148.34	6259.948	6.259948
11		145.34	6133.348	6.133348
		1628.76	68733.67	68.73

ISP
 (Chandran Gbasa)
 Sandeep
 Sandeep Kumbhar

(S. S. S. S. S.)

Chattopadhyay

(S. S. S. S. S.)

(S. S. S. S. S.)

MECCON

(B.S. Sidhu)

MECCON CONTRACTOR
 (VIVEK KUMAR)

CONTRACTOR

(MUKAN)

**COMMISSIONING TEST REPORT
UNIVERSAL SECTION MILL (PACKAGE-14)**

Input Material - Beam Blank 2
Initial Length of BB 2 - 9.8 meters approx.
Section Rolled - IPE 300
Weight per meter of finished product - 42.2 kg/m
Duration - 10.00 a.m - 6.00 p.m
Date: 23 - 05 - 2017

Sl No	Time Duration	Nos. of Beam Blanks required to be rolled per hour to achieve 66%	Actual Nos. of Beam Blanks rolled	Length and weight of finished product		Delays (min)		Reasons for Delays		Remarks
				Length of finished product (m)	Weight of finished product (t)	Attributable to Employer	Attributable to contractor	Employer	Contractor	
1.	10.00 a.m - 11.00 a.m	16	14	2048.40	86.42	16	8	Furnace discharge gap due to problem in opening the charging door	Grip type tilter functioning slowly	Details Length weight finish product attach as ANN 2
2.	11.00 a.m - 12.00 n		12	1734.96	73.2	23	7	Manual discharge from furnace	Grip type tilter functioning slowly	
3.	12.00 n - 1.00 p.m		13	1929.64	81.43	20	7	Manual discharge from furnace	Grip type tilter functioning slowly	
4.	1.00 p.m - 2.00 p.m		9	1339.69	56.53	34	3	Space constraint in product storage bay near loading grid 1	Grip type tilter functioning slowly	
5.	2.00 p.m - 3.00 p.m		11	1592.68	67.21	24	4	Manual discharge from furnace	Length measurement error. Manual cutting in hot saw	
6.	3.00 p.m - 4.00 p.m		9	1295.72	54.67	34	3	Slow evacuation due to accumulation of short pieces near loading grid 2	Length measurement error. Manual cutting in hot saw	
7.	4.00 p.m - 5.00 p.m		12	1752.20	73.94	20	4			
8.	5.00 p.m - 6.00 p.m		9	1332.02	56.21	32	4	Manual discharge from furnace	Grip type tilter functioning slowly	
Total - 8 hours			89		Total - 549.62	Total - 203 min = 3.38 hrs	Total = 40 min = 0.67 hrs			

Remarks: Rated hourly productivity as per contract - 150 t/hr

66% of the rated hourly productivity - 99 t/hr

Finished material (IPE 300) produced over a period of one shift - 549.62 tons

Duration of actual rolling after deducting the delays attributable to ISP - [8.00 - (3.38 - 0.67) = 5.29] hrs = 5.29 hrs

Hourly productivity achieved = 549.62 t / 5.29 hr = 103.89 ton/hr

103.89 ton/hr (69.26 % rated hourly productivity) achieved against 99 ton/hr (66 % rated hourly productivity) over a shift as per contract during the above commissioning test.

Hence the commissioning test is successfully conducted.

SP
Handwritten notes

Handwritten signatures and notes

Handwritten signature

Handwritten signature
(S.R. Das)

Handwritten signature
(B.S. Saha)
MECON
(Anil Kumar)

Handwritten signature
CONTRACTOR
SMS group 23

Sl No.	Time	Length of Finished material (L)	Weight of Finished material (42.2 X L)	Weight in Tonnes
1		142.09	5996.198	5.996198
2		148.77	6278.094	6.278094
3		147.69	6232.518	6.232518
4		148.61	6271.342	6.271342
5		147.68	6232.096	6.232096
6		148.47	6265.434	6.265434
7	10:00 AM to	146.19	6169.218	6.169218
8	11:00 AM	145.12	6124.094	6.124064
9		147.74	6234.628	6.234628
10		149.4	6304.68	6.30468
11		149.24	6297.928	6.297928
12		142.09	5996.198	5.996198
13		140.48	5928.256	5.928256
14		144.43	6094.946	6.094946
			86425.6	86.42
Sl No.	Time	Length of Finished material (L)	Weight of Finished material (42.2 X L)	Weight in Tonnes
1		140.02	6240.444	6.240444
2		147.2	6211.84	6.21184
3		146.79	6194.538	6.194538
4		149.7	6317.34	6.31734
5		147.75	6235.05	6.23505
6		148.44	6264.168	6.264168
7		146.23	6170.906	6.170906
8	12:00 AM to 01:00 PM	146.34	6175.548	6.175548
9		146.86	6197.492	6.197492
10		153.83	6491.626	6.491626
11		146.69	6190.118	6.190118
12		149.43	6305.946	6.305946
13		152.36	6429.592	6.429592
			81430.808	81.43
Sl No.	Time	Length of Finished material (42.2 X L)	Weight of Finished material (42.2 X L)	Weight in Tonnes
1		151.45	6391.19	6.39119
2		146.75	6192.85	6.19285
3		146.46	6180.612	6.180612
4	02:00 PM to 03:00 PM	149.41	6305.102	6.305102
5		145.04	6120.688	6.120688
6		144.39	6093.258	6.093258
7		147.14	6209.308	6.209308
8		147.45	6222.39	6.22239
9		144.26	6087.772	6.087772
10		130.46	5505.412	5.505412
11		139.87	5902.514	5.902514
12			67211.096	67.21
Sl No.	Time	Length of Finished material (42.2 X L)	Weight of Finished material (42.2 X L)	Weight in Tonnes
1		146.65	6188.63	6.18863
2		145.92	6157.824	6.157824
3		149.84	6323.248	6.323248
4		143.71	6064.562	6.064562
5		146.55	6184.41	6.18441
6	04:00 PM to 05:00 PM	145.99	6180.778	6.180778
7		138.13	5829.086	5.829086
8		144.9	6114.78	6.11478
9		146.3	6173.86	6.17386
10		147.14	6309.308	6.309308
11		146.74	6192.478	6.192478
12		150.31	6343.082	6.343082
			73941.996	73.94

Annexure.2

Sl No.	Time	Length of Finished material (L)	Weight of Finished material (42.2 X L)	Weight in Tonnes
1		141.89	5987.758	5.987758
2		141.75	5981.85	5.98185
3		146.08	6164.576	6.164576
4		145.3	6131.66	6.13166
5	11:00 AM to 12:00 AM	142.9	6030.38	6.03038
6		143.58	6059.076	6.059076
7		138.48	5843.856	5.843856
8		143.7	6064.14	6.06414
9		145.98	6160.356	6.160356
10		147.61	6229.142	6.229142
11		149.87	6324.514	6.324514
12		147.82	6238.004	6.238004
13			73215.31	73.21
1		152.48	6434.656	6.434656
2		150.68	6358.696	6.358696
3	01:00 PM to 02:00 AM	145.08	6122.376	6.122376
4		146.16	6167.952	6.167952
5		148.87	6282.314	6.282314
6		148.4	6262.48	6.26248
7		149.19	6295.818	6.295818
8		149.6	6313.12	6.31312
9		149.23	6297.506	6.297506
			56534.918	56.53
Sl No.	Time	Length of Finished material (L)	Weight of Finished material (42.2 X L)	Weight in Tonnes
1		140.77	5940.494	5.940494
2		131.9	5566.18	5.56618
3		146.75	6192.85	6.19285
4	03:00 PM to 04:00 PM	143.77	6067.094	6.067094
5		147.82	6238.004	6.238004
6		147.2	6211.84	6.21184
7		142.59	6017.298	6.017298
8		148.09	6249.398	6.249398
9		146.84	6196.648	6.196648
			54679.81	54.67
Sl No.	Time	Length of Finished material (L)	Weight of Finished material (42.2 X L)	Weight in Tonnes
1		147.91	6241.902	6.241902
2		148.57	6269.654	6.269654
3		147.77	6235.894	6.235894
4	05:00 PM to 06:00 PM	148.73	6275.406	6.275406
5		149.51	6309.322	6.309322
6		148.43	6263.746	6.263746
7		147.16	6210.152	6.210152
8		147.53	6225.766	6.225766
9		146.41	6178.502	6.178502
			56211.24	56.21

Chaudha (Ghosh)
RSP
T. Chatterjee

Swarna
(B.Swaraj)

Raj
(C.S.R. Das)

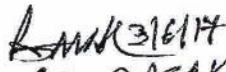
MECON

(B.S. Sidhu)
ANIL KUMAR
VIJAY KUMAR

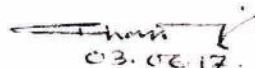
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Wingarten
ANURAG
Techno Fab.

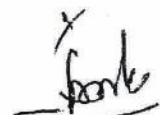
BALANCE JOBS IN UNIVERSAL SECTION MILL (PKG-14)

1. Trial run / Demonstration of Z ~~box~~ Piste
2. Trial run / Demonstration of UPN 300
3. Level 2 automation
4. Transfer Car in Area 2
5. Load Test / Trial Run of Crane Maintenance Hoist and Mono rail hoist
6. Electrical operation of safety doors (hand rail)



31/6/17
(R. BASAK)



3/6/2017
(A.K. Chak)


03.06.17.
T. Chattopadhyay


(Chandan Ghosh)

Received.
Mitsubishi OS. 07.2017
(SRS Group)


31/6/17
(ANUJ KUMAR)
MECON LTD.


03/06/17
(B.S. Sidhu)
MECON LTD.

PAC PUNCH POINTS

1. Punch List 1 – Main Mill Equipment
2. Punch List 2- Hydraulic
3. Punch List 3- Oil&Grease System
4. Punch List 4 – Auxiliairy System
5. Punch List 5 – Air Condition & Ventilation System
6. Punch List 6 – Control Items
7. Punch List 7 – CNC Machine

3/6/17
(R. BASAN)

3/6/2017
(A.K. Chakr)

03.06.17.
T. Chattopadhyay

[Signature]

SMS group 05.07.2017
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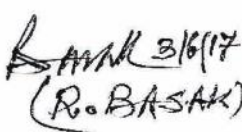
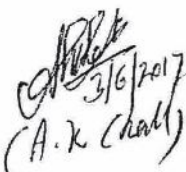
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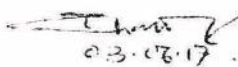

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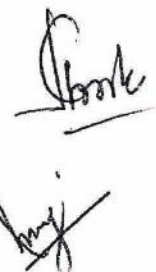
CRITICAL DEFECTS / DEFICIENCIES observed during commissioning
Universal Section Mill (Pkg-14)

Operational Issues :

1. Problems related to cold saws running at low cutting speed and frequent tripping of converter transformer.
2. Special tools required for removal of hot cobble from Roller table
3. Defects related to Profile measuring gauge (Process set up calculation of TCS is yet to be demonstrated)
4. Frequent stoppage of Edger drive of Tandem Mill.
5. Frequent failure of pressure and positioning transducer of TD Mill
6. Répétitive roll breakage during EA 150x150x12 and 200x200x12 rolling.
7. Roll pass schedule of all profiles needs rechecking specially for UPN and Angle .
8. Roll groove and guide design of all section of UPN, angle and ISMC needs to be rechecked and correct drawings are to be submitted by SMS. (i.e 1K groove of EA 150 is too wide causing material twisting in tail end)
9. SMS to submit correct Shim calculation drawing of Vertical roll assembly of Tandem Mill.
10. During the demonstration of roll machining by SMS experts on two nos. CNC machines, it was observed that time taken to machine one roll is taking too much time and it may not match with the requirement of the mill.SMS to clarify.
11. SMS to clarify & submit the rectified drawing of UPN, to be matched with IS Standard.
12. Filter Press is not functioning in WTP
13. Report Generation in WTP HMI is missing.
14. Binding machine 1 & 2 is mal functioning in auto mode.
15. Single bar labelling system not working. Sticker not getting stucked with the material and the printed data is not legible (becoming fed in few days).
16. Hooke down delivery of finished product of BD is to be minimised to avoid striking on roller table.
17. Optimisation of input material length for each individual section is to be done to avoid short pièce génération.
18. Non utilization of leader pass of angle 150 and UPN 200.
19. Non utilization of MCS during cutting product of six (6) meter length (minium gap between FCS and MCS is seven meters)
20. Complete detail drawing of set of table guides for Angle, Z bar and Z pile, U pile and sheet pile is to be submitted.
21. Pass schedule in BD for HE200,220,IPE300,330 & UPN 280-400 needs to be rechecked to optimize tilting and rolling operation (3rd and 4th tilting operation increases the rolling time and also difficulties are faced during handling longer material during tilting).SMS to clarify.
22. As per pass schedule given by M/s SMS, 5 passes are recommended for IPE 500 in TD mill, but at present rolling is done with 7 passes due to high load which increases rolling time.SMS to clarify.
23. Roll pass design recommended for EA 200 X 25, 20,16,12 is not yet stabilized.(Roll pass design of BD mill groove 2J and 3I are completely misfitting to each other and creates problem of material biting in groove 4H & 5G, as tilter in operator side. New BD roll pass design for EA200 is required)

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24. EA 150 & EA 160 BD roll 1K groove is too wide with respect to the input material which causing material twisting in tail end. SMS to clarify.
25. Re dressing schedule for BD,TD and straightener rolls to be submitted by SMS.
26. Actual roll pass schedule for UPN 300 at TD is not as per the roll pass data submitted by SMS. SMS to clarify.
27. Six nos. Vertical roll bearings are damaged with cassette. Root cause to be identified.
28. Straightener is presently running at a speed of 1 m/s set by SMS.SMS to show operation at higher speed.
29. Straightener pass schedule is not optimized for angle and UPN. Same to be optimized.
30. Clarification regarding the calculation of working diameter of straightener roll is required from SMS.
31. Demonstration of piling for 24 mtr cut length (commercial cut length) in both the piling bed is required.
32. CUSM to clarify regarding crane magnets not lifting the bundles more than six tonnes.
33. Hot saw crane not able to lift hot saw scale bucket.SMS to clarify.
34. SMS to submit the survey reports for BD,TD and Piling Bed for future reference.
35. SMS to provide roll pass design / manual.

Mechanical issues :

1. Maintenance arrangement for cooling bed sump pump, straightener motor and charging grid motor.
2. Coupling failure in Tandem Mill drive motor Lubrication system
3. Hydraulic problem in straightener roll adjustment
4. Failure of valves of Hydraulic System 3 & 4
5. In all EOT Crane Gear Box, there is no manufacturing name plates.
6. No provision of trolley for manual greasing in Cooling Bed walking Beam
7. Unjamming system in BD Mill is not working properly. (Even after replacement of both unjamming valves with new valves)
8. Continuous leakage of lubrication oil from screw down mechanism in BD Mill since commissioning.
9. Formation of air pockets in descaler pumps, cause delay in starting
10. Due to leakages in valves since commissioning, filling and drain line of Bulk Oil Storage tank is blocked. Due to this oil cannot be filled from bulk oil storage tank to Hydraulic System 3 .
11. Oil filling butterfly valves are not holding oil during the oil filling in Hydraulic System No. 01,02, 03 & 04.Oil leakages from all butterfly valves to be arrested.
12. No approach for nozzle cleaning in the aerosol cooling region of Cooling bed area.
13. No proper approach for manual greasing of various greasing points.
14. There is no working approach platform for maintenance of underslung crane in (FCS side)
15. Pulley drawing is to be made available (sump pump of cold saw)
16. In all the pipe lines (drinking water,industrial water,gasline,air line, etc. are not indicated / written on pipe line. Same is to be written.
17. CCW cooling tower does not have drain pit provision for draining.

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Electrical Issues

1. Messaging system is not working in all the HMI clients and HMI server. Commissioning of messaging system is immediately required for smooth operation of US mill.
2. Tandem semi auto / auto roll change is not yet tested. Further manual adjustment of edger stand for aligning with UR, UF and manual adjustment of spindle carrier position for different roll diameter caused longer roll change time.
3. Straightener area roll change auto sequence is not functioning. Also no flow chart (steps) is provided in HMI for roll change.
4. As commissioned / as built electrical drawing for rolling mills (M/s SMS, M/s Primetals),WTP(M/s Mukund),EOT cranes &Telpher /maintenance cranes (M/s Mukund),roll turning shop / CNC machines (M/s SMS), Straightener Roll change crane(M/s SMS), Straightener roll assembly crane(M/s SMS), Binding Machine(M/s SMS), Profile gauge(M/s SMS), as commissioned / as built drawing for blade change crane for fixed and movable cold saw(M/s Mukand), as commissioned / as built cable schedule are required to handed over for smooth operation & maintenance of mill.
5. 12 o' clock spindle position in UF is not achieved.
6. As commissioned / as built communication network diagram of profibus, field bus, Ethernet,fiber optic etc are required to be handed over for smooth operation & maintenance of mill.
7. As commissioned / as built software back up for CNC machine(roll turning shop), working parameter list for drives & NC system , fault & alarm help & trouble shooting manual, demonstration of different interfaces to access PLC & drive parameters, operation & maintenance manual is required.
8. As commissioned software back up for Straightener roll change crane, working parameter list, trouble shooting manual, recommended spare parts list, interfacing parameters and network diagram with level-1 Siemens PLC, demonstration of different interfaces to access PLC & drive parameters, Operation and maintenance manuals are required.
9. TCS back up, working project and password to access TCS software, required installed softwares and as built drawing is yet not supplied to us. These are required to supply at the earliest.
10. Bindling machine software(as commissioned), HMI back up, fault help manual, operation and maintenance manual, recommended spare list, interfacing parameter list with level-1 cold saw cpu, communication network diagram is yet not received from M/s SMS.
11. In all server & client PCs the operating system (windows xp service pack3) which is loaded is a non-licensed version.Valid license issue is yet not rectified.
12. HMI client PC 's stop working very frequently. To solve the issue, we need to restart the server PC and hence we are forced to stop the rolling for almost 15-20 minutes. No valid antivirus is provided for server & clients.
13. HMI server often giving pop up of "no valid license present" and "running in demo mode". Need to resolve it.
14. In PDA / IBA Computer no block of input-output / block parameters can be plotted/ configured which was earlier present. In last visit of Primetals, they did re installation of all softwares and after that this problem started.
15. Engineering station to be made ready for operation. During last visit of M/s Primetals, engineering station is formatted and all the softwares were installed again. After that starter software is not going online and help file not loaded there. Error coming during opening of starter help.
16. Cooling bed SLM rectifier and piling bed rectifier and edger drive motor module shows fault sometimes due to drive cliq communication error "F30885", "F30851", "F1800". All control interface board (CIB) need to be replaced by CIM+IPD by M/s Primetals. This is issue is referred to primetals long back.
17. When TCS goes in local mode due to any reason during rolling in tandem mill, adjustment of pass increment to be fed by operator manually. During this time, more

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- often, gap adjustment don't happen in respective passes in TCS and causes material to cobble. Delay caused due to cobble generation.
18. Demonstration of pass line calibration is never been given- required.
 19. Demonstration of calibration of temposonic (position transducers) (in case of replacement) during initial installation is required.
 20. Demonstration of calibration of cold saw area, BD area and hot saw area position transducers are required in case of replacement of the same.
 21. BD Mill front & rear tilter operation is slow and need to be made faster to reduce the rolling time.
 22. Internal leakage not arrested in BD screw down oil lubrication system.
 23. Straightener pass schedule is not optimized for angle and channel.
 24. Pass schedule change w.r.t change in roll diameter in Level-2 is not working in tandem mill Level-2, which is working in Level-2
 25. Motorized cooling water valve in TM area is not completely closed even with the setpoint of 0%. M/s SMS & M/s Primetals need to check for solution.
 26. Edger drive rectifier sometimes goes in fault due to "Line phase failure/ line synchronization is not possible" at start up. After 2-3 attempts it ultimately gets switched on. M/s Primetals need to check the issue and solve the problem.
 27. UR, UF, BD, Edger Main Motor cooling water leakage detection unit is still not installed in Motor RIO cubicles.
 28. In BD and Tandem mill lubrication HMI pages flow meter does not show any reading.
 29. Profile gauge often does not work due to broken PLC communication. To solve the problem we often need to restart the PCs. Many times during rolling it shows no measuring data / sometimes some data are missing in HMI. We face problem each and every day while working with profile gauge. M/s SMS need to sort out the problem (hardware/ software problem).
 30. Both the binding machines are having problem while strapping. The problem has been shown to M/s SMS (Mr. Joseph and Mr. Franc). M/s SMS need to sort out the issue related to binding machines soon.
 31. PSC System in TCS has not been commissioned yet.
 32. Currently the pressure set point in hot saw high pressure water line is reduced to 30 bar from 52bar (as per M/s SMS- Mr. Joseph) as there is not enough pressure available in the delivery line before hot saw high pressure water line. M/s SMS need to solve the pressure loss issue and revert the setpoint to previous value.
 33. Hydraulic system-4 becomes off often during straightener adjustment, but the reason is still not clear.
 34. In piling and turning magnet system, hooter and annunciation is not working when emergency supply is on. This is required in case of mains failure otherwise it will be unnoticed in case of supply failure and magnet may get burnt in due course (already 3 nos. of magnets are burnt as enough safety features were not available there).
 35. No working platform is provided to work and access the crane motor and junction box, over travel limit switch in FCS & MCS blade change crane. The fixed stair with working platform is required to provide there.
 36. In BD Mill, during rolling in last pass of IPE 500, IPE 600 rear side manipulator calculated position shows -540mm and -40mm sometimes. But in practical actual position can not be less than 0 mm. Hence auto transport of rolled material from BD to TD is not possible due to "rear side guide position not reached" interlock.
 37. GR41, GR42, GR43, DR31, DR41, DR51 drives are under rated. It has been observed that during continuous rolling these drives are tripping often in over current/overload.
 38. Except cold saw and piling bed area SFC Visualization has not been implemented till date.
 39. The approach to Position sensor (temposonic) connected with each walking beam segment in entry side of cooling bed area is required. Currently, due to no approach, breakdown time due to position sensor fault in walking beam is longer as expected.
 40. Approach to straightener motor for replacement is very poor.
 41. Cold saw geared RT motor system needs proper support. There is no proper approach / mechanism for fixing and removal of these motors.
 42. Measuring system (encoder mounted on free roll) provided for length measurement of rolled material (finished material in tandem mill) in Cooling bed near hot saw often

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- malfunctioning ("error in length measurement") and needs to transport material in manual mode. This problem is observed more often in angle rolling than compared to other profiles. Proper reliable long-term solution is required.
43. There is no standby pump supplied for 600 bar hydraulic system for straightener roll change. It has been observed that if one pump is tripped / motor faulty/ pump faulty , then roll change can not be completed without repairing that as roll clamping of that particular rolls can not be done with other two pumps.
 44. Drive handling trolley for changing phase module in main drive, S120 drive /power stack changing trolley is yet not supplied by M/s Primetals.
 45. Pulpit:
 - Un necessary cables must be removed.
 - False roof of corridor is not done properly.
 - AC temperature adjusting device provided in pulpit is not working.
 - Liquidation of punch points related to Control Pulpits
 46. WTP Pump House
 - Protection setting or relays, simocode etc. for all the motors installed in WTP and fire fighting area
 - Unit wise I/O list of PLC and RIO panels of WTP and Fire Fighting Area
 - As built drawings of Electrical systems in requisite no. of copies to be submitted
 47. Transformer, hydraulic and lubrication oil to be handed over as per contract

Instrumentation issues :

- Emissivity factor of the pyrometers (Make: - LAND SYSTEMS) installed in mill area need to be known for proper temperature reading of the hot metal. No document or calibration certificate is provided regarding calibration or emissivity setting of these pyrometers. And tools and setup required for setting of parameters and maintenance of these pyrometers have not been provided.
- Pressure transmitters (0-350 bar) make : HYDAC (model:HDA3840-A-350-124) installed in tandem mill used for rolls gap adjustment and in mill straightener area have been failing frequently and most of the electronic pressure switches (make : HYDAC model: EDS 300) have been showing pressure difference in reading of around 40 bar.
- ETP sludge holding tank Level switch and level transmitter at mill WTP are not working.
- Temperature reading of primary scale pit tank water is having difference of around 15Deg C at field and in HMI.
- Back wash water tank flow transmitter is not working and showing zero flow in HMI. Proper approach need to be provided for maintenance of this flow transmitter.
- All instruments installed in mill area and WTP needs to be calibrated and test/calibration certificates of all instruments need to be provided at the earliest.
- Drawing & Documents for various Instrumentation & Control systems installed to be provided as detailed below:-
 - List of all instruments installed in MILL area and WTP.
 - P & I diagram of lubrication oil system, Compressed air system, cooling water system and Hydraulic system.
 - Datasheet and Operation/ maintenance/ service manuals for all the instruments installed in lubrication oil line, Compressed air line, cooling water line and Hydraulic system.
 - Interlocks and logics/Control philosophy for Mill operation (especially including instrumentation).
 - Cable schedule/Loop details of instruments, RIO Panel and Control JB.
 - Cable schedule of inbuilt RTDs & Thermocouples of motors and other Blocks.

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